



The State of Men's Health in Europe



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Extended Report

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The State of Men's Health in Europe Extended Report

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Structure of the report

This report is structured into two parts. **Part 1** comprises an introduction which provides a concise overview of men, maleness and masculinity. This is followed by an analysis considering the structure of the male population and provides a picture of the implications for how men live, are educated and work. A section reviewing men's lifestyles and preventable risk factors gives a detailed overview of men's health behaviours, which in the most part contribute to much of men's premature mortality. In the section reviewing the issues of men's access to health services we present the gender variations that impact on men's interactions with health services.

In **Part two** the section on Health Status presents the overall state of men's health. The subsequent chapters address specific health conditions and the impact they have on men and their health.

Each chapter highlights the main points followed by a stand alone summary of the contents. The rest of the chapter discusses the issues in detail supported by data as referenced. The references are provided in an alphabetical list at the end of each section.

Part 1

1.1 Introduction

A better understanding of the health of men is essential for two main reasons. The first relates to the need for our male population to be as fit and able as possible. The second is tied to the fundamental values of equality and equity, as we are seeing many men whose lives are blighted through a collective lack of awareness and action on the problems they are facing. This has a huge impact not only on men themselves, but also their families and the wider society.

This report helps create the baseline understanding of the state of men's health across the 27 Member States of European Union, the 4 states of the European Free Trade Association and the 3 candidate countries. In doing so it provides a platform on which to build the aspirations of the European Public Health Programme, *Together for Health: A Strategic Approach for the EU 2008-2013*.

The report provides analysis of a broad range of health and social issues that affect the health of men and attempts to give an insight into why men seem so vulnerable to premature death and so challenging with regard to many aspects of their lifestyles.

Using routinely collected statistics on morbidity and mortality and data from academic literature, as comprehensive a picture as possible has been compiled on the state of men's health across Europe. The purpose of this report is to inform policy makers, health professionals, academics and the wider population of the health challenges men face and to suggest how these challenges are to be overcome.

1.1.1 Putting the spotlight on men and 'men's health'

Throughout European history, men have maintained a central and prominent place in society and have traditionally been the major holders of political and religious office and of economic resources. Nevertheless, the categories of 'men' and 'masculinity' have remained largely taken for granted, as the gender spotlight focused on women. Indeed, gender has tended to be synonymous with women and with women's issues, with men being seemingly content to 'reside backstage' (Sabo and Gordon, 1995:4). It was not until the latter part of the last century that we began to witness an increased gender focus on men, including men's health. This included two important landmark events within the

EU: the Men and Gender Equality Conference through the Finnish Presidency in 2006 (Varanka et al., 2006) and the Men's Health Conference as part of the Portuguese Presidency in 2007.

This report is particularly timely against a backdrop of unprecedented political, economic and social changes that have occurred across Europe over the past 30 years, and that present many challenges to men's sense of place in society (see Hearn et al., 2006). There have been significant economic changes with an overall decline of primary industry and, more recently, increased labour market vulnerability associated with economic recession. This is coupled with a changing demographic picture within Europe: with a declining younger population and an expanding older population, the workforce implications and pressure on resources are becoming more intense.

We need to acknowledge that currently we are losing a significant proportion of our working age men through premature mortality. This affects not only our industry and commerce, but also can alter the social and financial positions of families through the loss of what is, in many households, the primary income earner. The marked effect of poor socio-economic conditions on the health of men means not just an issue of gender equality, but a more fundamental equity concern, which relates to the right of all men to be able to live a long and fulfilling life.

The impetus for this report is borne out of some stark statistics on men's health:

- Male life expectancy is, on average, 6.1 years lower than female life expectancy, and men have higher death rates for most of the leading causes of death and at all ages.
- Many of the chronic diseases that are associated with premature mortality in men (e.g. coronary heart disease, stroke, diabetes and some cancers) are associated with lifestyle and preventable risk factors.
- There are substantial differences in health status between men as well as between men and women. Men from lower socioeconomic groups have poorer health outcomes and experience significantly higher mortality rates.
- Young men (18-35) are also a high-risk group, with deaths from suicide and road traffic accidents being a particular cause of concern.

There have been various reports undertaken on men's health, one of the first completed was the Viennese Men's Health Report in 1999, which created a lot of concern over the state of men's health in Austria and was instrumental in the setting up of the First World Congress on Men's Health being hosted in Vienna (Schmeiser-Rieder et al., 1999) and lead to the 1st Austrian Men's Health Report in 2005 (Ballnik & Wassertheurer, 2005). The European Men's Health Forum commissioned a study on the state of the then 17 countries of the European Union in 2003 (White & Cas, 2003). Ireland has also undertaken a report on the state of Irish men's health (Richardso, 2004) and more recently reports have just been completed on the health of men in Denmark (Sundhedsstyrelse, 2010) and Germany (Deutsche, 2010). All these reports have identified that men have specific health problems that warrant urgent attention.

Concerns over the state of men's health have seen the development of some strong NGOs including the European Men's Health Forum (EMHF), the Men's Health Forum in the UK, Ireland and Scotland, the Nordic Men's Health Society and other groups supporting the health of men (e.g. the European Patients Forum). Furthermore, numerous local initiatives across Europe have recognised that activity has to be focused on the individual needs of men and women for success to happen, many of which are captured in the Engender Database¹. The state of men's health in Europe is a serious public health concern. Despite the principles of the Lisbon Strategy and pressure from the World Health Organization that all health policy should consider the specific needs of both men and women through their push for 'gender mainstreaming', and increased interest in men's health, there have been relatively few gendered policy responses in the EU Member States relating to men's health. Indeed Ireland is the only member state to date to target men as a specific population group for the strategic planning of health by publishing a national men's health policy (NMHP; Department of Health and Children, 2008²). The impetus for and approaches to policy development in Ireland, as well as the methodologies used in developing the policy, provide a useful roadmap for men's health policy development in other counties (see Richardson and Carroll, 2009a; 2009b). The development of a NMHP in Ireland is also significant in that, like much of contemporary health policy, it positions increased responsibility for the

¹ <http://form.engender.eurohealth.ie/>

² In 2010, Australia became only the second country worldwide to publish a National Men's Health Policy (Department of Health and Ageing, 2010)

management of health with the individual [i.e. in this case with men], reflecting newer neo-liberal discourses of health (see Richardson, 2010). Notwithstanding the many challenges to date in transitioning from policy development to implementation (see Richardson & Smith, 2010), having a NMHP advances the case for men's health in three important ways:

“(i) it provides a vision, identity and branding for men's health within the wider health policy framework; (ii) it provides a framework for action on men's health and points towards a more systematic approach to tackling key priorities identified for men's health...; and (iii) it provides an important resource for practitioners, policy makers and advocates who wish to further advance men's health work.” (ibid)

The publication of Ireland's NMHP represents a significant landmark in the ongoing evolution of the field of men's health and, it is to be hoped, can leverage support for an increased and more explicit policy focus on men's health in other Member States in the years ahead.

With the notable exception of Ireland, men, across the EU, have tended not to be targeted as a distinct population group for the strategic planning of health care. Granted, there are a number of key European policies currently in place to increase the health and wellbeing of our population and to enhance our economic position within the world market. To fully achieve the aspirations of these initiatives we need to acknowledge that currently we are losing a significant proportion of our working age men through premature mortality. This affects not only our industry and commerce, but also fundamentally can alter the social and financial positions of families through the loss of what is, in many households, the primary income earner. Premature mortality also deprives society of fathers, partners, work colleagues and friends.

There is a marked effect of poor socio-economic conditions on the health of men, with significant differences existing between the life expectancy of those living in the poorest parts of our society and the wealthiest. So this is not just an issue of gender equality, but also of a more fundamental equity issue, which is the right of all men to be able to live a long and fulfilling life.

Issues of sex and gender have influenced much policy development since the Beijing “Platform for Action” at the 1995 United Nations 4th World Conference

on Women. Mainstreaming gender equality has tended to be seen as a commitment to ensure that women's and men's concerns and experiences are given appropriate attention (Derbyshire, 2002). In order to achieve the highest standard of health, health policies must recognise that women and men, owing to their biological differences and their gender behaviours, have different needs, obstacles and opportunities. There is therefore an increasing onus on policy makers to apply a gender lens to policy development. To achieve this, and in accordance with declarations adopted at the 4th World Conference on Women, it is important that statistics are collected in such a way as to allow a thorough analysis of sex differences. The data provided in this report provide an important blueprint to inform and develop policies and programmes both to improve men's health and to promote gender equality.

1.1.1.1. Definitions of men's health

The White Paper "Together for Health: A Strategic Approach for the EU 2008-2013" (European Commission, 2007) recognises that a healthy population is essential for economic growth and the overall well-being of Europe. The recognition that health is a significant political challenge that needs support in all policy areas reflects and reinforces a broad definition of health:

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

World Health Organization (1948)

For the purpose of this report, therefore, we have taken the holistic bio-psychosocial definition suggested by the Men's Health Forum (England):

"A male health issue is one arising from physiological, psychological, social, cultural or environmental factors that have a specific impact on boys or men and/or where particular interventions are required for boys or men in order to achieve improvements in health and well-being at either the individual or the population level".

1.1.1.2 Sex and/or gender

Some of the observed sex differences in health can be attributed to biological factors. The finding of consistent sex differences in life expectancy that favour women suggests that there may be some important biological differences which make the health of all men different from that of all women.

With every cell having either a XX or a XY genetic base the biological variations between men and women appear from conception and have fundamental implications for the way we develop and how our bodies work. The American Medical Association undertook a detailed analysis of the research into the implications of biological sex on health and found:

- Differences associated with the sex chromosomes
- Differences in immune response
- Differences in symptoms, type, and onset of cardiovascular disease
- Differences in response to toxins
- Differences in brain organisation
- Differences in pain

Wizemann & Pardue (2001)

A bio-physiological difference that was not fully developed within Wizemann & Pardue's text was the issue of obesity, with the tendency for men to deposit their fat as visceral intra-abdominal fat with its metabolic implications for increased risk of a number of serious health conditions (see section 1.2 'obesity').

The biological contribution to understanding sex differences is now an important area of scientific study, under the umbrella title of 'gender medicine'. To help stimulate this work the GenderBasic project was conceived to provide tools for sex and gender analysis for the research community in line with the EU Framework Programme 6 guidelines. Topics covered within the project included work on the metabolic syndrome (Regitz-Zagrosek et al., 2007) osteoporosis (Guesens & Dinan, 2007), gene expression (Isensee & Noppinge, 2007) and others³. This work was completed in 2007 with three main achievements⁴:

- I. It stimulated research into sex differences
- II. It stimulated research into the workings, mechanisms and effects of gender in particular for understanding masculinity and male gender roles and effects on individual health behavior, and
- III. It stimulated research into the interaction of sex and gender.

³ The work of the GenderBasic Project were covered in a special supplement of Gender Medicine Vol 4 Supplement B, 2007

⁴ http://cordis.europa.eu/fetch?CALLER=EN_NEWS&ACTION=D&SESSION=&RCN=29248 – it is worth noting that the study was seen as one of the success stories of FP6

The findings of the GenderBasic project reinforce an important point - the finding of sex differences in life expectancy or other measures of health should not simply be interpreted as the result of biological differences. First, the observation of sex differences does not necessarily inform us of the biological, psychological, or social mechanisms underlying such differences. Second, a focus on differences between men and women may lead to a neglect of variation within and between populations of men and women. Third, there is a risk that uncritical use of sex-difference research can intensify or entrench essentialist beliefs about gender (Addis & Mahalik, 2003). As demonstrated in this report, there is much variation in health and life expectancy between men living in different contexts (e.g. different countries within Europe) and between men living in the same context (e.g. age-related or socioeconomic differences within the same country). This corresponds with the observed variations in health within women in Europe (Thümmeler et al., 2009). This recognition that such broad differences in health for men, both across states and within states, cannot lead to a conclusion that it is some form of biological inevitability that men will die prematurely (Walberg et al., 1998, Lu, 2003).

Differences in how men and women live their lives and how they attend to health and illness are an important part of explanations for observed differences in men's and women's health. For example, men are less likely than women to seek help from professionals for a range of psychological, behavioural, and physical problems (Galdas et al., 2005; Möller-Leimkühler, 2002), and are considerably more likely to engage in a range of risk behaviours (Khaw et al., 2008, Qi et al., 2006; Villegas et al., 2008).

1.1.1.3 Masculinities, health and health-related behaviour

In recent years, increased attention has been given to men and masculinities, influenced by a range of academic and political perspectives, most notably contemporary feminism. An important aspect of these more critical approaches to understanding men has been balancing the potential conflict between approaches which stress differences between men and women, and approaches which recognise the diversity of men's and women's experiences. Sometimes the male/female dichotomy highlights important differences between men and women, but it is also important not to think of men (or women) as one homogeneous group.

It is important to distinguish between sex and gender. Often these terms are used interchangeably, but they do have quite distinct meanings. Sex and sex differences are biologically-based, and refer to differences between male and female. Gender and gender differences are culturally-based, and refer to the active construction of masculinities and femininities; i.e. practices that are defining features of being a man or a woman. Masculinities and femininities are social constructions which may vary between cultures and across time. Gender and gender differences cannot simply be reduced to biological sex differences. Only approaches that separate social gender from biological sex can account for how and why some men are considered more or less masculine than others.

It is now acknowledged that masculinity is not a single fixed entity: at any one time there may be a complex arrangement of patterns of masculine behaviour and discourses or definitions of masculinity (Connell, 1995). Contemporary theories of men and masculinities reject the notion that all men are characterised by a masculinity arising from innate, fixed, core characteristics. Of course there are some basic biological characteristics that all men possess and which distinguish all men from all women. However, there is also great diversity between men in terms of how they actively construct and shape their masculinity over time. There are also differences in the ways in which maleness and masculinity are linked to health and health-related behaviour.

The influence of culture in shaping masculine identity begins early (Brody, 2000; Bronstein, 2006). For example, boys learn not to show physical or emotional vulnerability, and they are encouraged to strive for achievement and success (Möller-Leimkühler, 2002). How boys and men behave is an important part of their masculine identities. Indeed, some have argued that gender should not be thought of as a noun, but as a verb: masculinity is not something that men have, but something that they do (West & Zimmerman, 1987). Some social behaviours have clear links to traditional definitions of gender. These include different forms of paid labour (e.g. mining, nursing) as well as the traditional "feminine" labelling of childcare and most domestic labour.

Many health-related behaviours also have clear gender stereotypes, and may therefore be used to "do gender". This idea is central to Courtenay's theory of gender and health:

“health-related beliefs and behaviours, like other social practices that men and women engage in, are a means for demonstrating femininities and masculinities.” (Courtenay, 2000, p.1385)

Traditionally “masculine” health-related behaviours include physical toughness, risk taking and heavy drinking, whereas traditionally “non-masculine” health-related behaviours include concern about diet and appearance and seeking help for physical or psychological concerns. The extent to which a man endorses and supports such traditional definitions of masculine and non-masculine behaviour will influence his patterns of health-related behaviour. Qualitative research has revealed that the extent to which men endorse “traditional” or “dominant” definitions or discourses of masculinity is related to unhealthy behaviours such as poor diet (Gough & Conner, 2006), excessive alcohol consumption (de Visser et al., 2009), and non-use of health services (O’Brien et al., 2005). Quantitative research shows that scores on measures of endorsement of traditional masculinity are related to different patterns of health-related behaviour (e.g., Mahalik et al., 2006, 2007).

Beliefs about masculinity also influence men’s use of health services (Addis & Mahalik, 2003). For example, prospective longitudinal research reveals that after controlling for socio-demographic characteristics and health status, young men who had more traditional beliefs about masculinity were significantly less likely to use health services (Marcell et al., 2007). Research also indicates that greater endorsement of traditional beliefs about masculinity is related to more negative attitudes toward using counselling services (Robertson & Fitzgerald, 1992). However, more traditional men may be more likely to use counselling services if they are re-labelled “classes”, “workshops”, or “seminars”.

In addition to considering how ideologies of masculinity may influence behaviour linked to disease onset, it is important to note the influence of male health professionals’ beliefs about masculinity. The influence of more traditional gender norms may lead to male health professionals ignoring or being unresponsive to male patients’ emotional distress (Möller-Leimkühler, 2002).

Within Europe there may be wide variation between countries in prevailing beliefs about masculinity and masculine behaviours. Such variation may reflect national-level factors such as national cultures, histories, and economies. It may also reflect regional or sub-cultural factors such as urban/rural residence.

Furthermore, it may be related to individual-level factors such as age, socioeconomic status, urban/rural residence, education, etc. For example, the multinational MALES study of sexuality included five European countries, France, Germany, Italy, Spain, and the UK and found that beliefs about masculinity are not uniform, but vary according to the cultural context (Sand et al., 2008). There was substantial variation in the extent to which men in these five European countries endorsed various components of masculinity. For example, whereas 44% of German men cited “being in control of your own life” as an important component of masculinity, only 17% of French men did so. As another example, 46% of Spanish men rated “being seen as a man of honour” as an important component of masculinity, but only 6% of German men did so. Sand et al., (2008) did not report demographic variation in beliefs about masculinity at the country-specific level, but their pooled results across the 8 nations suggest that there is important variation in masculinity beliefs according to variables such as age and marital status. Thus, men’s beliefs about masculinity vary between and within countries.

Given that masculinities are cultural and historical constructs, it is important to be aware that masculinities may vary as a function of cultural and historical differences. Masculinities may also vary within countries in relation to age, ethnicity, class, sexuality, and disability. Given the links between masculinities and health behaviour referred to earlier, we may therefore expect there to be variation across Europe in terms of how masculinity is related to health. However, current data make it difficult to quantify such variation: Hearn et al., (2006, p.49) noted that “there has been relatively little academic work on men’s health from a gendered perspective in many countries”.

How men perceive and actively define themselves as masculine impacts upon the value they place upon their health and how they manage their health within the healthcare system (Richardson, 2004). Indeed, it is against particular norms of masculine behaviour that men must constantly measure themselves – the dominant masculinity being the yardstick against which particular health practices are to be negotiated. It is crucially important however to consider and interpret gender and masculinities within the wider socio-cultural context of men’s lives and not in isolation from the social determinants of men’s health. As Ireland’s men’s health policy (Department of Health & Children, 2008, p14) highlights:

"It is imperative, however, that gendered health practices are not seen as inherent or intractable male characteristics, but rather, learned masculine behaviours that typically reflect wider cultural and institutional masculine ideologies such as those of schools or sporting organisations."

1.1.2 Social determinants of health

Men's health status is more than simply a consequence of biological, physiological or genetic factors; it is also affected by much broader economic, social, cultural and environmental elements. The Commission on the Social Determinants of Health affirms that the conditions in which people grow, live, work have a powerful influence on health. The Commission's holistic view of these determinants calls for sustained actions to overcome the unequal distribution of power, income, goods and services which often lead to unfair access to health care, education, and an individual chance of leading a flourishing life (CDSH2008).

Men are not a homogenous group. It is important to acknowledge differences related to social class, ethnicity, sexual orientation etc, as well as similarities between men. How different men see themselves as being male is also crucial in acknowledging and respecting diversity within men. An appropriate men's health policy has to face the multidimensional diversity within men and that there are many different ways to be a man. In the process of policy development men's health should not be defined in a narrow biomedical framework, but should embrace a broader, social determinants view. In this respect, effective men's health policy needs to draw on multiple strategies that target individual behaviors and that also focus on issues at the macro-economic, social, and environmental levels. In the case of socially excluded men health outcomes are very closely linked to education, employment, and housing. These factors are combined by issues such as social isolation and limited access to services for many deprived men.

Across the EU, societies are changing, and the challenge to the position of men in gender relations has resulted in important changes in work practices, family structures and the continued blurring between more traditional male and female roles. Permanent jobs are being replaced by short-term work contracts, rates of divorce are increasing, more children are born outside of marriage, and there is now a more level playing field in terms of equal opportunity in the workplace for men and women. There is much debate in Europe about men's changing roles, the concept and different interpretations of the 'new man', and the degree to

which men are choosing to embrace or resist change and about their new vulnerability in health.

1.1.2.1 Men's health as an equity/equality issue

The focus on sex-differences in epidemiology often leads to men's health being defined in terms of margins of difference with women's health, an approach which may create conflict and rivalry between the two. Men's health should be understood within a broad context, in the way that men actively construct their everyday life that impact on their health and in the framework of the culture in which men live and work. The positioning of men's health within a mainstreamed equality/equity agenda may offer a more holistic approach than a focus on gender alone.

In the Policy Brief of the European Observatory on Health Systems and Policies, Payne (2009, p iv) suggests that there are three basic approaches to address gender equality and gender equity:

- Regulatory approaches at national level might address patient's rights or create a duty for public sector organizations to address gender equality. Such a duty would require health ministries to consider the way in which health systems can reinforce inequality and to work towards the promotion of gender equality.
- Organizational approaches designed to address gender equity focus on the use (in health systems) of various tools to highlight gender inequalities and pinpoint solutions. For example, gender budgeting is an organizational approach that focuses on government expenditure and makes the gender impact of budgetary decisions explicit.
- Informational approaches focus on the role in providing knowledge about gender inequities. For example, gender sensitive health indicators are intended to identify key differences between women and men in relation to health and in the social determinants of health, in order to support policy change.

Gender mainstreaming represents a comprehensive strategy aimed at achieving greater gender equality. This is attained by integrating a gender perspective into existing mainstream institutions and all programmatic areas or sectors (e.g., trade, health, education, environment, transportation, etc.). In the United Nations system, gender mainstreaming was defined and adopted in 1997. In line with the Amsterdam Treaty (1995) which put Gender Equality at the heart

of European policy priorities the Commission defines Gender Mainstreaming in the following way:

"Gender mainstreaming is the integration of the gender perspective into every stage of policy processes – design, implementation, monitoring and evaluation – with a view to promoting equality between women and men. It means assessing how policies impact on the life and position of both women and men – and taking responsibility to re-address them if necessary. This is the way to make gender equality a concrete reality in the lives of women and men creating space for everyone within the organizations as well as in communities - to contribute to the process of articulating a shared vision of sustainable human development and translating it into reality." ⁵

The Roadmap for Equality represents the Commission's commitment to accelerate progress towards gender equality in partnership with Member States, and other actors.

The Roadmap for Equality between women and men outlines six priority areas for EU action on gender equality:

- Equal economic independence for women and men;
- Reconciliation of private and professional life;
- Equal representation in decision-making;
- Eradication of all forms of gender-based violence and trafficking;
- Elimination of gender stereotypes;
- Promotion of gender equality in external and development policies.

The Roadmap foresees the improvement of the governance of gender equality. This should include a specific component for men's health issues.

1.1.2.2 Gender analysis, health impact assessment

Gender analysis incorporates differences in women's and men's opportunities, needs, circumstances, health status and quality of life. It can be used to identify gender biases in policies, program design, management, implementation and review processes.

⁵ see: <http://ec.europa.eu/social/main.jsp?catId=421&langId=en> last accessed 14/12/10

The basic elements of gender analysis from a men's health prospective are:

- To assess differences in the determinants of health and ill-health in the concerned groups of men
- To identify how and where different services are provided, and identify and explain differences in women and men's choice and use of services
- To consider the type and the way in which information is presented in the planning and delivery of health services
- To consider how differences identified above are borne by different groups of men in the community
- To identify and remove barriers to achieving gender equity.

Gender analysis can be considered as a policy planning and advocacy tool of focusing on the impact of gender within the context of other social, age-related, cultural and economic influences on health.

Specifically, this should produce better health outcomes for men by:

- Producing better-targeted programs
- Facilitating more effective use of resources
- Encouraging more sensitive practice
- Enabling people to use services effectively

Equity-focused health impact assessment uses the health impact assessment process to firstly determine the potential differential and distributional impacts of a policy, program or project on the health of the population as well as specific groups within that population; and secondly, to assess whether the differential impacts are remediable and unfair. The equity dimension of this type of health impact assessment is about assessing whether identified differential health impacts are inequitable - the result of factors that are remediable and unfair, i.e. they are potentially preventable impacts. The minimum criteria for differential impacts that should be considered include:

- age;
- gender;
- socioeconomic position;
- culture and ethnicity;
- level of health and disability.

1.1.2.3 Settings and community development

Taking a settings approach to men's health means addressing the contexts within which they live, work and making these the object of analysis and policy action as

well as the needs and capacities of people to be found in different settings. This approach can increase the likelihood of success because it offers opportunities to situate actions to address men's health issues in their context. A number of attempts have been made in Europe to systematize evidence regarding the effectiveness of interventions in different types of settings (e.g., workplace and school-based health promotion, community development).

By focusing on the settings where different groups of men live in, well targeted policies can create environments that positively affect the behavior of men that occurs in it, and intervene to create change in those settings that foster behaviors that have negative consequences. Settings are more than containers of target male populations for interventions – passive recipients of service. The interaction of people within a particular setting and also among other settings in which they "live" is a basic element of such a policy.

The community, defined by geography, culture or social stratification, is a valuable resource for health, so one of the key policy options is to strengthen social capital among communities of men through a community development approach. Traditionally, men have neither involved in community development activities nor have they mobilized themselves collectively to improve their health.

Many men in Europe experience social isolation and exclusion on a daily basis. These deprived men have the worst health profiles and are most likely to die prematurely. The integration of these groups of men into community and social networks is essential in terms of improving their health. By using community resources for empowering deprived men to take control of their lives may enable them to change the circumstances that contribute to their disadvantage.

There is a need for special attention on the home as a setting in which to target specific men's health policy initiatives that accommodate diversity within family structures and that enable men to take increased responsibility for their own health. Measures that support and enable men to be more involved and active as fathers have beneficial effects not just for fathers themselves, but also for their wives/partners and children, and society as a whole.

Schools are important settings for the delivery of early interventions with regard to men's health policy initiatives. The literature on men's health draws attention to the critical influence that behaviours and values developed early in

life have on men's health practices in later life. Appropriate policies are needed to consider possible gender differences in learning and development in the context of the 'under-achievement' of boys in schools; the need for improved links between schools and homes/communities; the need to address the high drop-out rate for boys.

Men's health starts with boys' health. There is a need to provide a visible and integrated focus on boys and men's health within primary and secondary school curricula, one that includes a focus on male-specific health issues and that fosters positive models of personal and social development, and sexual health delivery for boys.

Greater emphasis should be given on men's health in the workplace, with policies targeting workplace as a key setting for delivering men's health initiatives and that involves both employers and unions/representative bodies working in a cohesive way to promote men's health. Work-life balance is increasingly seen as an issue that impacts on men as well as women. An important health policy task is to identify men's health aspects of occupational health and safety. Unemployment, lack of security of job tenure and involuntary early retirement can have a potentially negative impact on men's health. Men who fall into these categories need special attention within the health system.

A key policy issue is to improve men's access to primary care services in the community and at the workplace and the promptness with which they seek help, particularly for more serious and debilitating conditions. Specific policy measures should be developed for marginalized subgroups of men (e.g. ethnic minority men, disabled men, isolated rural men, homeless men).

1.1.2.4 Health communication

Health communication from a men's health policy perspective encompasses the study and use of communication strategies to inform and influence individual and community decisions that enhance men's health. Health communication can contribute to all aspects of disease prevention and health promotion of men and is relevant in a number of other contexts, including:

- health professional-patient relations with the different groups of male population,
- individual men's exposure to, search for, and use of health information,

- the dissemination of individual and population health risk information, that is, risk communication,
- the education of different groups of men about how to gain access to the public health and health care systems

For individual men, effective health communication can help raise awareness of health risks, provide the motivation and skills needed to reduce these risks, help them find support from other people in similar situations, and affect or reinforce attitudes. Health communication also can increase demand for appropriate health services and decrease demand for inappropriate health services.

An audience-centred perspective is needed in men's health policy reflecting the realities of different men's everyday lives and their current practices, attitudes, beliefs, and lifestyles. A good communication strategy has to consider the experience of different men with the health care system, attitudes toward different types of health problems, and willingness to use certain types of health services. Particular attention should be paid to the needs of deprived male populations.

Health information specific to men should be developed and evaluated on the relevant health topics, such as diet and physical activity, and medical conditions, such as prostate cancer. There is also a need to develop and evaluate general health information that challenges men to consider their health and supports men to seek medical advice early. Media and new technologies of communication through which to disseminate health information appropriately and effectively to men should also be explored and evaluated, making appropriate and 'male-friendly' health information available and accessible to men.

1.1.3 Policy concepts and principles - One size does not fit all

1.1.3.1 Principles and key approaches of men's health policy in Europe

The development of men's health policy should avoid competing with women's health. An appropriate policy needs to consider how different groups of men construct attitudes and behaviors that impact on their health, and how this occurs within the broader cultural context of the institutions in which men live and work. A comprehensive and fair policy making process needs to consider

the potential impact of a men's health policy not just on men but on women and society as a whole.

Men's health policy can only be effective if it succeeds in forging strong links and partnerships at European, national and local levels based on the principle of subsidiarity. The integration or at least coordination of men's health policy with existing policies (both within and outside of the health system) is another important challenge in the future. It is imperative that men's health policy has a clear timeframe for implementation, and well defined means of evaluating outcomes.

1.1.3.2 Men's Health policy in broad EU policy context

According to our starting considerations, men's health largely depends on the social and economical determinants of health, and it is closely linked to equity and social integration. Based on this our report uses a multi-sector and multi-level approach in analyzing the European context of Men's Health policy. Decision-making at the EU level can affect men's health in EU Member States in multiple, complex, direct and indirect, intended and unintended ways.

1.1.3.3 Public Health

The European Commission has adopted Together for Health: A Strategic Approach for the EU 2008-2013 (available at http://ec.europa.eu/health-eu/doc/whitepaper_en.pdf). This Strategy aims to provide, for the first time, an overarching strategic framework spanning core issues in health and in all policies and global health issues. The Strategy aims to set clear objectives to guide future work on health at the European level, and to put in place an implementation mechanism to achieve those objectives, working in partnership with Member States.

In October 2009, the European Commission adopted a Communication on 'Solidarity in Health: Reducing Health Inequalities in the EU' that sets out actions that it will take to help address health inequalities, including:

- Collaboration with national authorities, regions and other bodies
- Assessment of the impact of EU policies on health inequalities to ensure that they help reduce them where possible.
- Regular statistics and reporting on the size of inequalities in the EU and on successful strategies to reduce them.

- Better information on EU funding to help national authorities and other bodies address the inequalities

1.1.3.4 Regional Policy / Structural Funds

EU regional or '*cohesion*' policy is one of the most important areas in which the EU can provide support to EU Member States in their efforts to tackle health inequalities. Using approximately a third of the EU budget, it explicitly addresses economic and structural inequalities by a transfer of resources between Member States for the purpose of supporting economic growth and sustainable development through investment in people and infrastructures having this way an explicit and important impact on economical and social determinants.

Investing in regions or groups of people that suffer from relatively low economic performance and/or are going through economic transition arguably benefits the whole of society by stimulating a positive cycle of growth and development. The funds can be used to invest in key health determinants like the improvement of living conditions (e.g. the provision of water and sanitation and certain health care services), while work opportunities are increased by certain measures (e.g. better transport, education and technologies). Investments in these areas can raise the health status of people living in deprived areas, and contribute to a reduction in health inequalities.

1.1.3.5 EU Sustainable Development Strategy

Sustainable Development stands for meeting the needs of present generations without jeopardizing the ability of future generations to meet their own needs - in other words, a better quality of life for everyone now, and for generations to come. It is the overarching long term goal of the EU set out in the Treaty.

The overall aim of the most recently adopted (2006) Sustainable Development Strategy (SDS) is:

"to identify and develop actions to enable the EU to achieve a continuous long-term improvement of quality of life through the creation of sustainable communities able to manage and use resources efficiently, able to tap the ecological and social innovation potential of the economy and in the end able to ensure prosperity, environmental protection and social equity and cohesion."

The EU Sustainable Development Strategy (SDS) is therefore an important vehicle to take forward a 'health determinants' approach, in that it compels other policy areas to ensure that their activities support, rather than undermine the key objectives of economic prosperity, environmental cohesion and social equity and cohesion. In addition, all EU related initiatives must comply with a number of key principles outlined in the Strategy that include the protection and promotion of human rights, solidarity between generations, and policy coherence and governance.

The overall objective of the public health priority area is: *"to promote good public health on equal conditions and improve protection against health threats"*. The priority area makes direct reference to public health, as one of its main operational objectives: *"reducing health inequalities within and between Member States by addressing the wider determinants of health and appropriate health promotion and disease prevention strategies. Actions should take into account international cooperation in for a like WHO, the Council of Europe, OECD and UNESCO"*.

The overall objective of priority 6 on Social Inclusion, demography and migration is: *"to create a socially inclusive society by taking into account solidarity between and within generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being"*.

The main components of implementation of the new Sustainable Development Strategy are as follows:

- Education, research and public finance are stressed as important instruments in facilitating the transition to more sustainable production and consumption patterns.
- Impact assessments of all major new policy proposals
- The adoption of several cross-cutting and thematic strategies and action plans, often accompanied by specific targets and milestones (e.g. Public Health Action Plan, Social Inclusion Strategy).

1.1.3.6 Tackling men's health from an assets perspective

Many of the solutions of addressing the social determinants of men's health rely on the ability of professionals to recognize that men have significant potential to be a health resource rather than just a consumer of health services. Such a policy calls for a departure from the traditional focus on the 'deficiencies' of men with respect

to their health. Public debate on men's health tends to be dominated by negative portrayals of men and masculinity, whereby men are blamed for failing the health services by not attending, for being violent and for taking risks. This report supports a positive and holistic approach to men's health, one that addresses the underlying causal factors that can be attributed to men's poorer health outcomes and that create health-enhancing environments for boys and men.

1.1.3.7 Men's health as an investment

According to a study of the European Office for Investment for Health and Development, World Health Organization (Suhrcke et al., 2005) investment in health is of benefit to Europe's economies; for men's health these benefits affect the economy in four main ways:

- They might be more productive at work and so earn higher incomes
- They may spend more time in the labour force, as they are less likely to take sickness absence or retire early
- They may invest more in their own education, which will increase their productivity
- They may save more in the expectation of longevity increasing the funds available for investment in the economy.

However a broader European evidence base is needed on the efficiency, effectiveness and cost-effectiveness of policies, programmes and projects targeting men's health.

As life expectancy and retirement increases it is politically sensible to tackle the lifestyle factors which inevitably lead to such high premature death rates from for example cardiovascular disease a significant proportion of which for both sexes are preventable. As the World Health Organisation (2009) has noted the *greatest potential for health gain lies with prevention* and we can see tangible examples of success for Coronary heart disease in Finland and Ireland through the control of risk factors (Ritsatakis & Makar, 2009). A key approach of men's health policy is to consider it as an investment and in a narrower prospective to work in a strategic way in promoting a healthy male workforce as a more productive workforce.

Improving the health of men can also have both direct and indirect benefits for women and children. In the case of single-income, lower socio-economic group families, absenteeism from work due to a father's ill-health is likely to have

significant material repercussions for the family as a whole. In the case of sexual or mental health, interventions that are successful with men are also likely to have positive spin-offs for men's families.

1.1.4 Conclusion

This report adopts a broad, social determinants approach to defining men's health. It makes the case that men's health is more than simply a consequence of biological, physiological or genetic factors, but that it is also affected by much broader economic, social, cultural and environmental factors, which influence how men in different countries and different cultures experience health. It seeks to move beyond an approach that focuses only on differences between men and women to examine the many and varied differences between men and the many and varied ways of being a man in Europe. It recognizes, in particular, that social and economic factors, including poverty, are key determinants of the health status of men across the EU.

1.1.5 References

- Addis ME, Mahalik JR (2003) Men, masculinity, and the contexts of help seeking. *American Psychologist* 58:5-14
- Ballnik P, Wassertheurer P (2005) 1st Austrian Men's Health Report. Federal Ministry for Social Security, Unit of Men's Affairs, Austria.
- Brody LR (2000) The socialization of gender differences in emotional expression: Display rules, infant temperament, and differentiation. In: Fischer AH. (Ed). *Gender and Emotion: Social Psychological Perspectives*. (pp.24-47). New York, Cambridge University Press
- Bronstein P (2006) The Family Environment: Where Gender Role Socialization Begins. In: Worell J, Goodheart CD (Eds) *Handbook of Girls' and Women's Psychological Health*. (pp. 262-271). New York, Oxford University Press
- CSDH (2008) Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on the social determinants of health, WHO, Geneva
http://www.who.int/social_determinants/thecommission/finalreport/en/index.html last accessed 12/11/10
- Connell RW (1995) *Masculinities*. Sydney, Allen & Unwin
- Courtenay W (2000). Constructions of masculinity and their influence on men's well-being: A theory of gender and health. *Soc Sc & Med* 50:1385-1401

- Department of Health and Children (2008) National Men's Health Policy 2008-2013: Working with men in Ireland to achieve optimum health and wellbeing. Hawkins House, Dublin, Ireland
- Department of Health and Ageing (2010) National Male Health Policy: Building on the strengths of Australian males. Canberra: Australian Government
- Derbyshire, H (2002) Gender Manual: A Practical Guide for Development Policy Makers and Practitioners Social Development Division, DFID
- Deutscher E (2011) Männergesundheitsbericht. Die Stiftung Männergesundheit und die Deutsche Gesellschaft für Mann und Gesundheit e.V.
- de Visser R, Smith J, McDonnell E (2009) "That's not masculine": masculine capital and health-related behaviour. *Journal of Health Psychology* 14:1047-1058
- European Commission (2007) White Paper Together for Health: A Strategic Approach for the EU 2008-2013. Brussels, European Commission
- European Union (1997) Treaty of Amsterdam, Luxembourg: Office for Official Publications of the European Communities
- Galdas PM, Cheater F, Marshall P (2005) Men and help-seeking behaviour: literature review. *Journal of Advanced Nursing* 49:616-623
- Geusens P, Dinant G (2007) Integrating a gender dimension into osteoporosis and fracture risk research. *Gender Medicine* 4(supplement B):S147-S161
- Gough B, Conner MT (2006) Barriers to healthy eating among men: a qualitative analysis. *Soc Sc & Med* 62:387-395
- Hearn J, Pringle K et al., (2006) European Perspectives on Men and Masculinities. Houndmills, Palgrave
- Isensee J, Noppinger PR (2007) Sexually dimorphic gene expression in mammalian somatic tissue. *Gender Medicine* 4(supplement B):S75-S95
- Khaw K-T, Wareham N, Bingham S et al., (2008) Combined Impact of Health Behaviours and Mortality in Men and Women: The EPIC-Norfolk Prospective Population Study. *PLoS Medicine* 5(1):e12 doi:10.1371/journal.pmed.0050012
- Luy M (2003) Causes of Male Excess Mortality: Insights from Cloistered Populations, *Population and Development Review* 29(4):647-676
- Marcell AV, Ford CA, Pleck JH, et al., (2007) Masculine beliefs, parental communication, and male adolescents' health care use. *Paediatrics* 119:966-975
- Mahalik JR, Lagan HD, Morrison JA (2006) Health behaviours and masculinity in Kenyan and US male college students. *Psychology of Men & Masculinity* 7:191-202

- Mahalik JR, Burns SM, Syzdek M (2007) Masculinity and perceived normative health behaviours as predictors of men's health behaviours. *Soc Sci Med* 64: 2201-9
- Men's Health Forum (2004) Men's Health. Getting it sorted: A policy programme for men's health. Available at <http://www.menshealthforum.org.uk/files/images/gettingsorted2004.pdf> last accessed 17/11/10
- Qi V, Phillips SP, Hopman WM (2006) Determinants of a healthy lifestyle and use of preventive screening in Canada. *BMC Public Health* 6: 275
doi: 10.1186/1471-2458-6-275
- Payne S (2009) How can gender equity be addressed through health systems? Policy Brief 12. World Health Organization 2009 and World Health Organization, on behalf of the European Observatory on Health Systems and Policies
- Regitz-Zagrosek V, Lehmkuhl E, Mahmoodzadeh S (2007) Gender aspects of the role of the metabolic syndrome as a risk factor for cardiovascular disease. *Gender Medicine* 4(supplement B):S162-S177
- Richardson N (2004) Getting Inside Men's Health. Health Promotion Department, South Eastern Health Board, Ireland
- Richardson N (2004) Getting Inside Men's Health. Health Promotion Department, South Eastern Health Board, Kilkenny
- Richardson N (2010) 'The 'buck' stops with me' – reconciling men's lay conceptualisations of responsibility for health with men's health policy. *Health Sociology Review* (In Press, Accepted for publication September 2010)
- Richardson N, Carroll P (2009a) Getting men's health onto a policy agenda – charting the development of a national men's health policy in Ireland. *Journal of Men's Health* 6(2): 105-113.
- Richardson N, Carroll P (2009b) Men's health in Ireland. In D. Wilkins & E. Savoye, *Men's health around the world: A review of policy and progress across 11 countries*. European Men's Health Forum. Brussels, Belgium.
- Richardson N, Smith J (2010) National men's health policies in Ireland and Australia: what are the challenges associated with transitioning from development to implementation. *Public Health* (In Press, submitted November 2010)
- Ritsatakis A, Makara P (2009) Gaining health. Analysis of policy development in European countries for tackling non communicable diseases. WHO, Geneva

- Robertson JM, Fitzgerald LF (1992) Overdoing the masculine mystique: Preferences for alternative forms of assistance among men who avoid counselling. *Journal of Counselling Psychology* 39:240-246
- Sabo DF, Gordon DF (1995) *Men's Health and Illness. Gender, Power, and the Body*. Volume 8. London, Sage publications
- Sand MS, Fisher W, Rosen R et al., (2008) Erectile dysfunction and constructs of masculinity and quality of life in the multinational Men's Attitudes for Life Events and Sexuality (MALES) study. *Journal of Sexual Medicine* 5:583-594
- Schmeiser-Rieder A, Kiefer I, Panuschka C, et al., (1999) The Men's Health Report of Vienna. *The Aging Male* 2(3):166-79.
- Suhrcke M, McKee M, Sauto Arce R (2005) *The Contribution of Health to the Economy in the European Union*. European Commission: Brussels
- Sundhedsstyrelsen (2010) *Maends Sundhed – en oversigt over maends sundhedstilstand og en gennemgang af effective forebyggelsesmetoder*. Sundhedsstyrelsen, Copenhagen
- Thümmler K, Britton A, Kirch W (2009) *Data and Information on Women's Health in the European Union*. Brussels, European Commission
- Varanka J, Närhinen A, Siukola R (2006) *Men and Gender Equality: towards progressive policies*. Helsinki, Finland Ministry of Social Affairs and Health Reports 2006: 75.
- Villegas R, Kearney PM, Perry IJ (2008) The cumulative effect of core lifestyle behaviours on the prevalence of hypertension and dyslipidemia. *BMC Public Health* 8:210. doi:10.1186/1471-2458-8-210
- Walberg P, McKee M, Shkolnikov V et al., (1998) Economic change, crime, and mortality crisis in Russia: regional analysis. *BMJ* 317:312-318
- West C, Zimmerman DH (1987) Doing gender. *Gender & Society* 1:125-151
- Weisman CS (1997) Changing Definitions of Women's Health: Implications for Health Care and Policy *Maternal and Child Health Journal* 1(3) 179-189
- White AK, Cash K (2003) *The state of men's health across 17 European Countries*. Brussels, The European Men's Health Forum. Wizemann TM, Pardue ML (2001) *Exploring the biological contributions to human health: does sex matter?* National Academy Press. Washington
- WHO Commission on Social Determinants of Health (CSDH 2008) *World Health Organization (1948) Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946*

1.2 Methodology

1.2.1 Data sources

The main sources for data retrieval considered, which will ensure a comprehensive overview and an analysis of the state of men's health across 27 Member States, EFTA countries and the candidate countries (34 countries), were:

- Eurostat
- World Health Organisation Statistical Information Service Mortality Database
- European Health for All database (HFA-DB)
- European Injury Database (IDB)
- Hospital Morbidity Database (HDMB)
- World Health Statistics 2009
- OECD Statistics data
- Eurobarometer
- Health statistics – Atlas on mortality in the European Union
- Eurostat regional yearbook 2008
- Key figures on Europe 2009
- EUPHIX: EU Public Health Information & Knowledge System

Given that Eurostat was the main source of data in this report, it was occasionally necessary to complete the gaps encountered in the data with the above-mentioned alternative data sources. Mortality Database and is also part of the OECD Statistics data. To insure the validity of the results, a comparison analysis of the common data available in the different data sources was performed and, when no significant differences were found, the datasets were merged.

In addition, a thorough analysis of available scientific literature as well as current health surveys, studies and reports, brochures, books, magazines and other sources were used and referenced throughout this report in order to provide a comprehensive review of what is known about the health of men.

1.2.2 Data Analysis

The software used in this project was: SPSS version 18.0 for the statistical analysis, ArcGis9.3 for the creation of maps, and Excel when handling the data.

There are 3 levels of NUTS (Nomenclature of Territorial Units for Statistics) within Eurostat comprising 97 regions for NUTS1, 271 regions for NUTS2 and 1303 regions for NUTS3. Most of the results are presented at the country level, but when differences between regions are expected to be more pronounced, an analysis at NUTS 2 level is shown.

The data presented in this report reflect issues regarding male-specific illnesses, principal causes of premature death, and those causes of death that are most influenced by lifestyle and cultural factors and therefore most amenable to preventive action. The first available data was used in order to guarantee the most updated information for the 34 countries included in the study and to ensure the maximum impact of the report.

Age standardized data presented in this report uses the "European Standard Population" as the reference population, as defined by the World Health Organisation.

The International Classification of Diseases ICD-10 was the diagnostic classification system used in this report.

Tables, histograms, bar graphs (simple, clustered and/or stacked), line graphs and pie charts are used to present the data.

Whenever data allow, time series charts are included to show the changes that have occurred during the massive period of change over the last 10 and 20 years, in both the social and political arena as well as with regard to technological improvements in health care.

Maps are drawn to show the similarities and to identify the gaps among the countries and/or regions across the different health indicators considered. They can be sex-specific and are represented by shades of blue for males and shades of red for females, or can represent changes occurring through time or among males and females (e.g. ratio, differences) and are represented by the color pallet of yellow-green-blue. All maps were based on 5 classes using Jenks Natural Breaks Classification method for the construction of these classes. This method seeks to reduce the variance within classes and maximize the variance between them.

Country codes

Austria	AT
Belgium	BE
Bulgaria	BG
Cyprus	CY
Czech Republic	CZ
Germany	DE
Denmark	DK
Estonia	EE
Spain	ES
Finland	FI
France	FR
Greece	EL
Hungary	HU
Ireland	IE
Italy	IT
Lithuania	LT
Luxembourg	LU
Latvia	LV
Malta	MT
Netherlands	NL
Poland	PL
Portugal	PT
Romania	RO
Sweden	SE
Slovenia	SI
Slovakia	SK
United Kingdom	UK
Croatia	HR
Former Yugoslav Republic of Macedonia	MK
Turkey	TR
Iceland	IS
Liechtenstein	LI
Norway	NO
Switzerland	CH

1.3 The male population

1.3.1 Main points

- There is an increasing longevity of much of the male population, but this is coupled with a decline in the birth rate.
- If the current projections for the changing male population are correct there will be a reduction of nearly 24 million working age men (aged 15-64 years) across the EU27 by 2060 and an increase in the number of men over 65 by some 32 million.
- Young men are living at home for longer and deferring the age of marriage.
- Boys and girls are in the education system for longer, but boys seem to be missing out on a full educational experience, with more leaving school prematurely and fewer entering tertiary or adult education.
- Patterns of work are changing, with higher unemployment levels than women and being less likely to have a job for life.
- Early migration and asylum seekers are predominately male, with a greater degree of migration occurring within Europe, reducing the male population in the home countries.
- Men in vulnerable positions such as Migrants / Asylum seekers, Prisoners, the homeless or the disabled are all facing challenges to their health and well-being.

1.3.2 Summary

The emerging demographic picture will have a marked impact on men over the coming decades, with implications for how men live, are educated, and work. An expanding older population will put an increased strain on resources at a time when the younger population are diminished in number. Changing patterns of work and fewer jobs for men is occurring at a time when European policy is striving to retain more men at work for a greater proportion of their lives. The message that we need a highly qualified workforce still seems to be missing a large proportion of men, with relatively few entering into tertiary education or taking up adult education opportunities.

More men are living at home for longer before getting married and family size is reducing with children being born later in married life. For many men there is the prospect of divorce and the health challenges that brings.

The movement of men across borders through emigration, or asylum seeking may be plugging some of the demographic gaps in the younger population for some countries, but internal migration within Europe has a negative effect on the workforce in the home countries. It also brings with it challenges in how these young men will be enabled to manage their health and wellbeing in their host country as they tend to be working and living in poor conditions.

There are other groups of men who also face particular health challenges, which include those who are in prison, the homeless and men with disabilities.

1.3.3 Introduction

To be healthy is not just about the absence of disease; it is also dependent on being part of society, having an education, a job, a family and to be able to live a reasonably safe and secure life. Examination of these broader determinants of men's health and wellbeing and an exploration of the way men live their lives creates a useful backdrop to understand the context for the health challenges men are facing.

There has been a steady and continual change in the male population structure across Europe. A falling birth rate and longer life expectancy are creating a growing mismatch between the young and the old. There have also been major changes in the social roles of the population and in many cases these have been extremely beneficial and have improved the lives of both men and women. A further change is seen by more men choosing to leave the labour market in order to be the primary carer either for children or for infirm or older relatives.

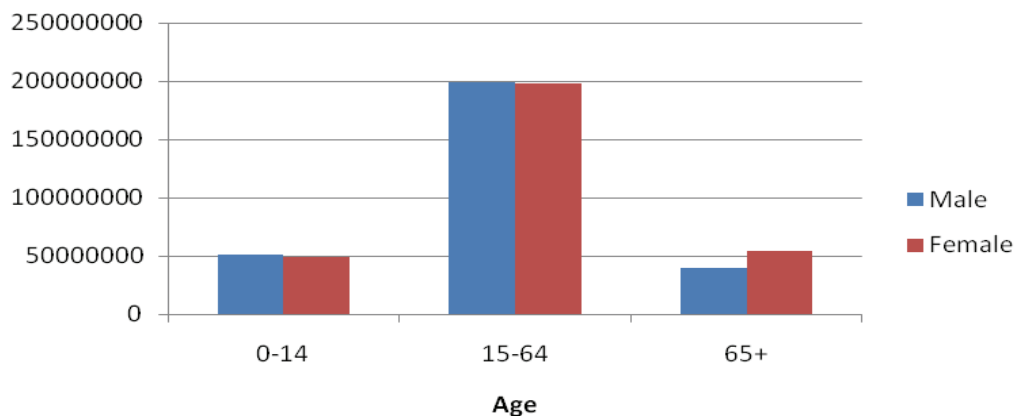
There are other emerging issues, however, that are seeing men in more vulnerable positions, such as the shrinking economy putting a strain on jobs leaving many men in transient part-time work or unemployed, or through the increasing likelihood of divorce resulting in men losing contact with children and having to face a future alone.

It is also recognised that men are not a homogenous group, with marked differences existing as a result of their social position within society. Examples include men who are facing the challenges of moving to life in a new country through migration or the seeking of asylum or are incarcerated in prison or are homeless, those who have alternative sexualities, or are living with disabilities.

1.3.4 Total male population

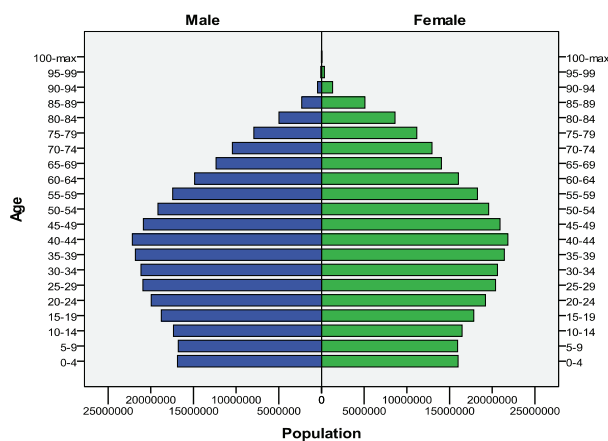
There are nearly 290m men within the 34 countries this report covers, with slightly more boys than girls (51.3m, 48.7m respectively), about a similar number of adults (15-64yrs – 198.5m, 197.6m respectively) and over a third more women than men over the age of 65 years (39.1m, 54.5m respectively) (Fig. 1.3.1)⁶. When this is broken down we can see a bulge in the population at the 40-44 age range (Fig. 1.3.2), but this is not a static picture.

Fig. 1.3.1 Population, by sex, ages 0-14, 15-65 and 65+ years



Source: Eurostat Demo_pjan

Fig. 1.3.2 Population pyramid, all countries, latest year



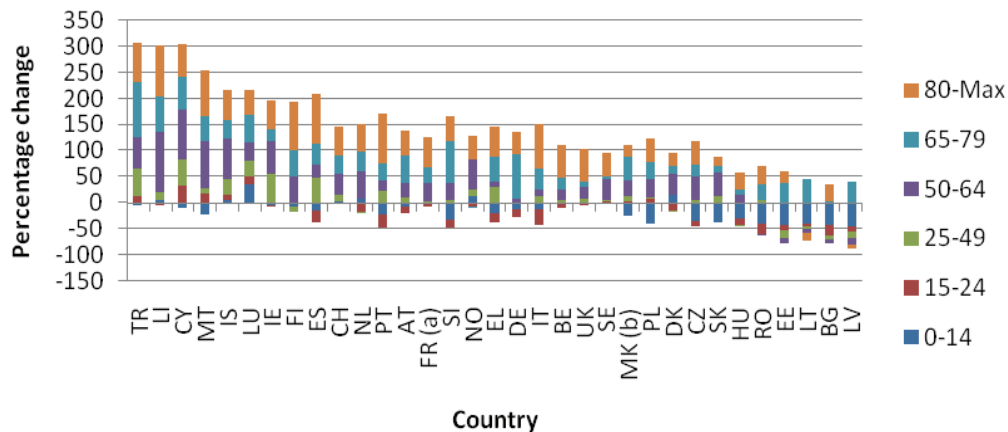
Source: Eurostat Demo_pjan

Since 1990 there have been marked changes for many countries in the structure of their male population; for most this has seen an increasingly aged

⁶ This data does not include the data for 8910 males and 11064 females whose ages were not known.

population, with a quite rapid reduction in the number of young as compared to the old. Few countries have seen an increase in their 0-14 age group (exceptionally Luxembourg with a 36% increase) and Denmark, with the Eastern European countries showing the biggest decreases (Fig. 1.3.3).

Fig. 1.3.3 Percentage change in male population structure, by country, 1990 to latest year.



Source: Eurostat Demo_pjan a) Starting year 1991, b) Starting year 1994

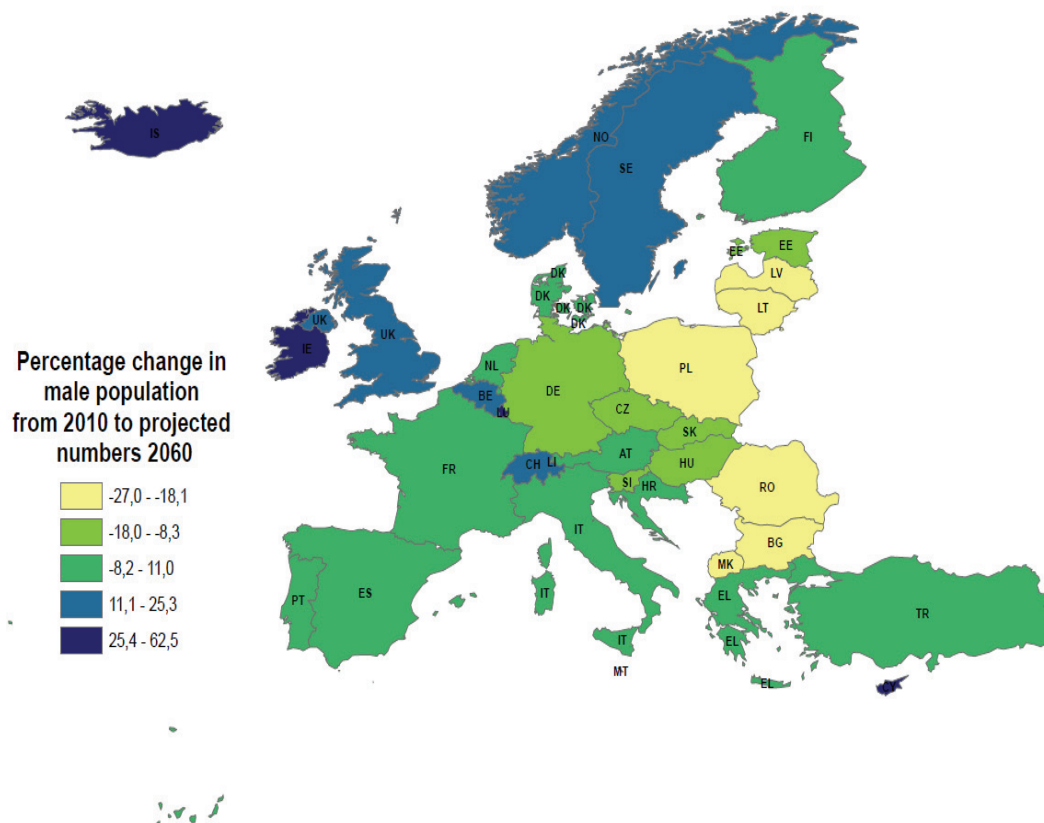
At the other end of the age spectrum only Latvia and Lithuania have shown a decrease in the over 80 year olds, the rest of the countries are seeing quite marked increases (for instance Portugal, Spain and Liechtenstein all having over 90% increase in this age group). Fig. 1.3.3 shows the percentage changes for each country and for each age group highlight the altered age structures that will be impacting on many facets of society.

EUROPOP2008 (EUROpean POPulation Projections, base year 2008) have calculated the changes in population by age over the next 50 years. Predicted population changes for men by country vary considerably (Map 1.3.1). From the data available from Eurostat countries such as Cyprus, Luxembourg and Ireland are set to have big increases of their male population (above 45%), whereas many of the Eastern European countries (and Italy) are expected to see their male population fall by over 20%. For EU27 as a whole there is expected to be an overall 2.2% increase overall in the male population.

Current overall population structure for the countries included in this report show the largest number of men are in the 40-44 year age band (see Fig. 1.3.2), but over the next 50 years this band moves upwards until we see the

largest number of men in the over 80 years age band (see sequence in Fig. 1.3.6). EU 27 is expected to see a 220% increase in men over 80 years of age by 2060 with some countries expected to have more than 4 or 5 fold more men 80+ years old (such as Ireland, Slovakia and Cyprus).

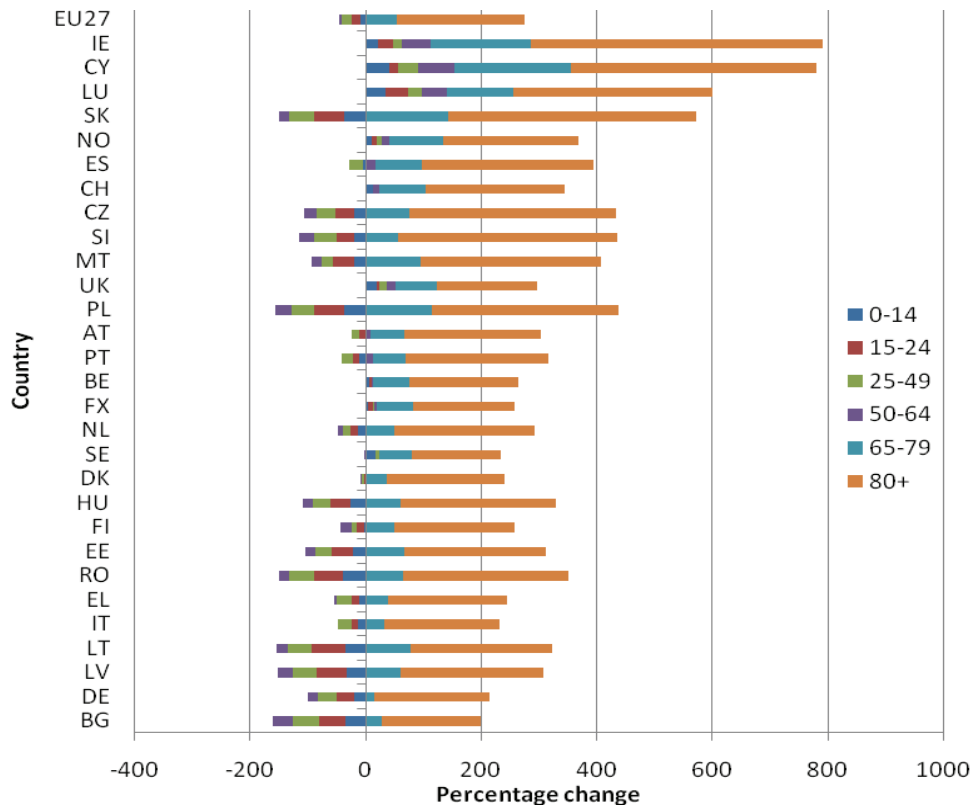
Map 1.3.1 Percentage change in male population from 2010 to projected numbers in 2060



Source: Eurostat proj_08c2150p

Using this data the percentage change between 2010 and 2060 has been calculated (see Fig. 1.3.4). For the EU27 the general trend that has been seen over the previous 20 years continues, with a reduction in the younger male population (0-14yrs -8.3%, 15-24yrs -15.7% & 25-49yrs -18.8%) and an increase in the older male population (65-79yrs 53% & 80+ yrs 221%). There remain large variations on this pattern across Europe, with some countries showing quite marked reductions in their younger population and these are mainly from Eastern Europe with others showing a growth, for instance Cyprus, Luxembourg and Ireland, which also show a five fold increase in the over 80 age group.

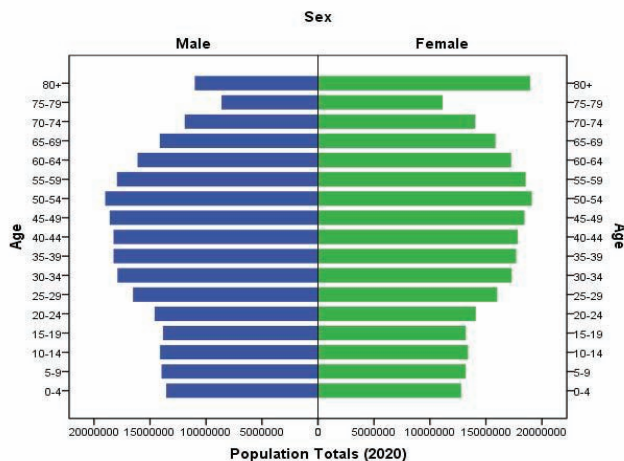
Fig. 1.3.4 Percentage change in male population structure, by country, from 2010 to projected numbers in 2060.

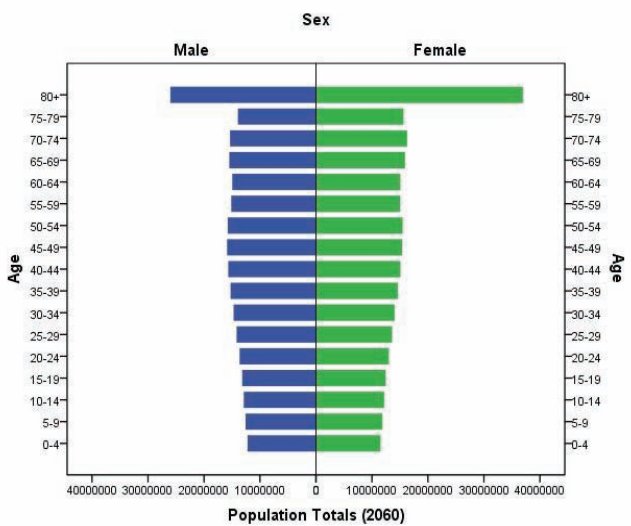
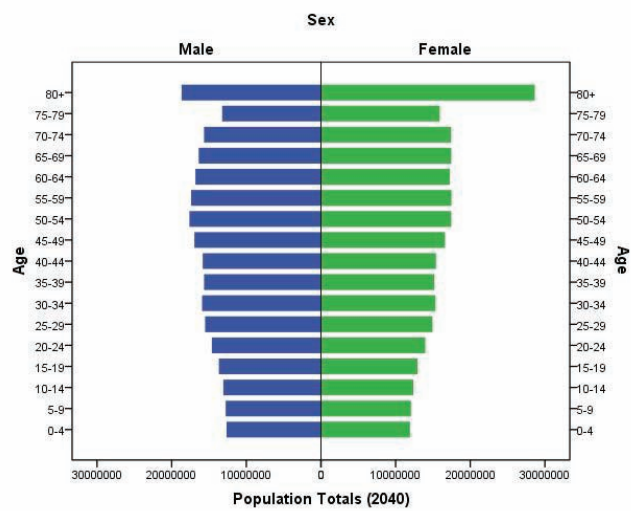
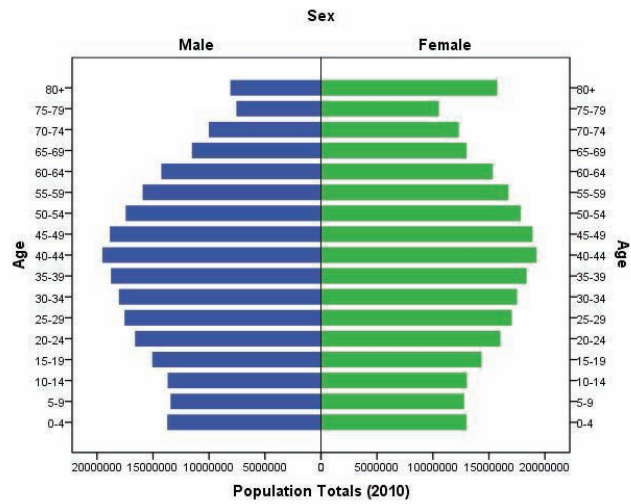


Source: Eurostat proj_08c2150p

The changes in the population structure for the next 50 years can be followed in Fig. 1.3.5, which shows the population bulge rising up through the ages, with a concurrent decrease in the younger population. From these projections it is evident that there will be some 23.8m less men in the 15-64 working age bracket across EU27 and an increase of 32m in those men aged over 65 years.

Fig. 1.3.5 Population trends from 2010 to projected numbers in 2060



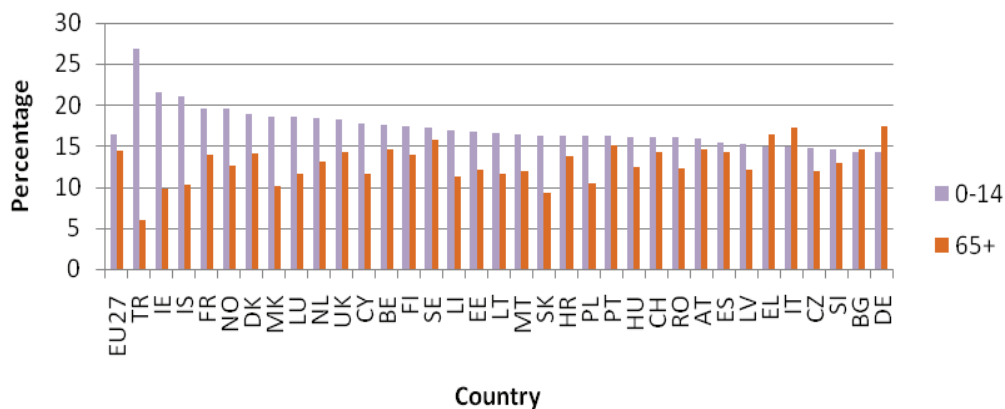


Source: Eurostat proj_08c2150p

1.3.4.1 Age dependency ratio

There are some countries within the scope of this report that still have a larger number of boys under the age of 15 as compared to men over 65, Turkey, Ireland, and Iceland being prime examples (see Fig. 1.3.6). There are also countries that already have more men over the age of 65 than boys. Germany, Bulgaria, Italy and Greece fall into this category.

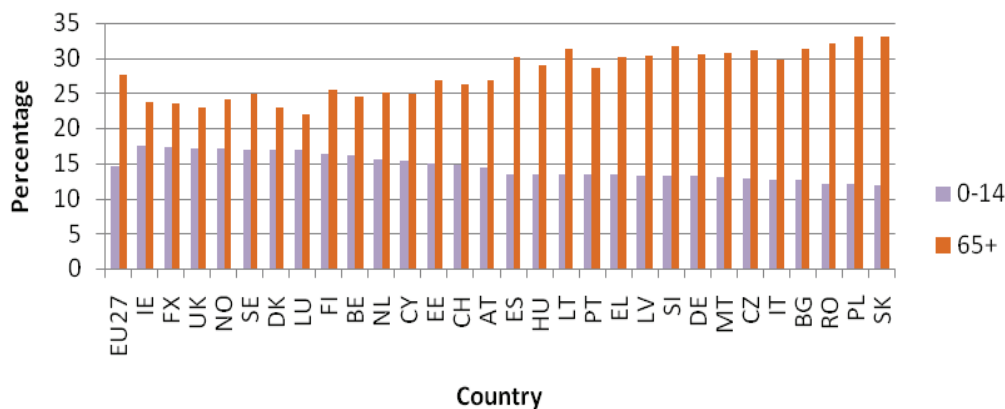
Fig. 1.3.6 Proportion of total male population in the 0-14 and 65+ age range, by country, 2008.



Source: Eurostat Demo_pjan

This picture changes markedly when the age dependency ratio is calculated for those countries that have population predictions done for 2060 (Fig. 1.3.7). Here we can see that in all the countries the number of over 65 year old men far outnumber the 1-14 year olds as a percentage of the total population.

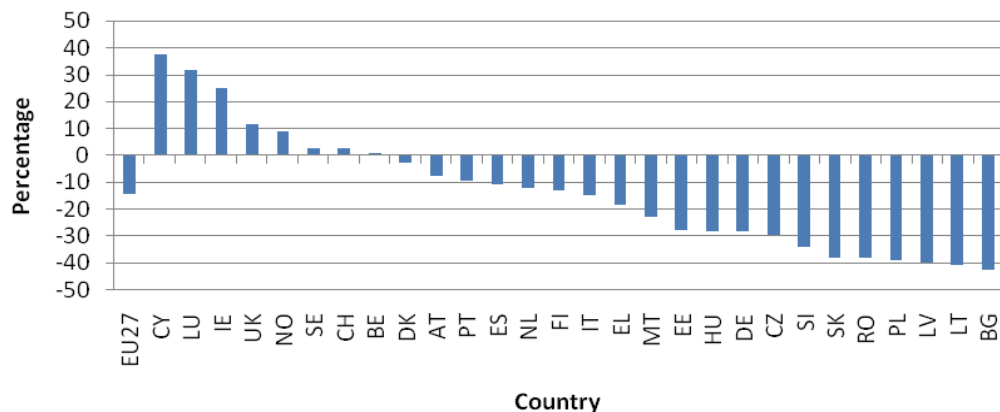
Fig. 1.3.7 Proportion of projected male population in the 0-14 and 65+ age range, by country, 2060



EUROSTAT: proj_08c2150p

With regards to the working age population (15-64 years) the majority of countries will see a marked reduction in the number of men available for work, with a 14.4% drop across EU27 as a whole (Fig. 1.3.8). The biggest reductions will be seen in the Eastern European countries, which will add an additional burden on their emerging economies.

Fig. 1.3.8 Percentage difference between the number of men aged 15-64 years, by country, 2010-2060



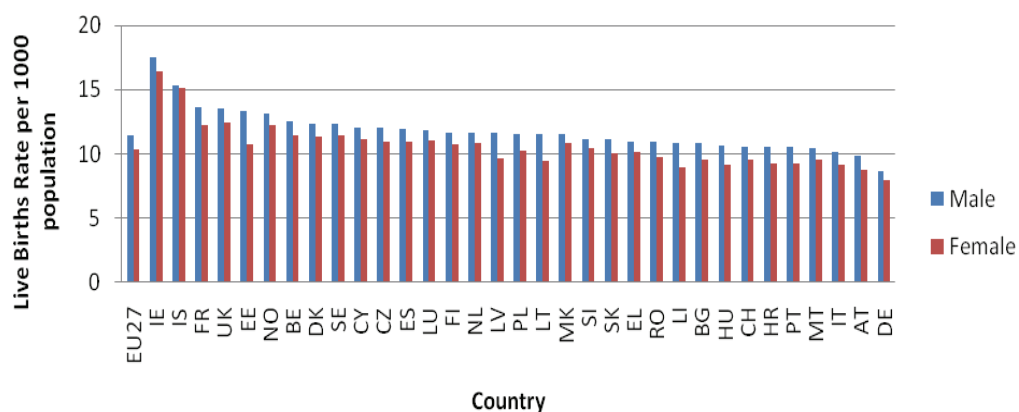
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1.3.5 Birth rate

The number of male embryos at gestation outnumbers that of girls by a ratio of about 120 to 100 but, due to the instability of the XY chromosome as compared to the XX chromosome, the number of foetuses surviving to a live birth decreases the ratio to 105 boys for every 100 girls.

From the available data it can be seen that Ireland and Iceland have male live birth rates above 15 per 1,000 population as compared to Germany with 8 per 1000 population (Fig. 1.3.9) and the EU27 average of 10 per 1000 population. A falling birth rate has been noted (EC, 2007) and highlights changing trends in the age of having children, and the numbers of children being born, rather than the survival of children at birth, which has seen a steady but continued fall over the years (see Infant mortality in Health Status section).

Fig. 1.3.9 Live births per 1,000 population, by sex and country, 2008



Source merged data from: Eurostat demo_magec and WHO Health for all database

1.3.6 Living arrangements

In 2008 half of the male population are still living at home at the age of 26 years (Eurostat, 2010a). A study by the Office of National Statistics (Berrington et al., 2009) in Britain has found that 25% of men aged 25-29 years are still living with their parents (almost double that of women, 13%), with 10% of men still in the family home past the age of 30 years. The majority of these men tend to have lower educational attainment and to be economically inactive. However another group is men who left home to go to university and have had to return home through inability to find work.

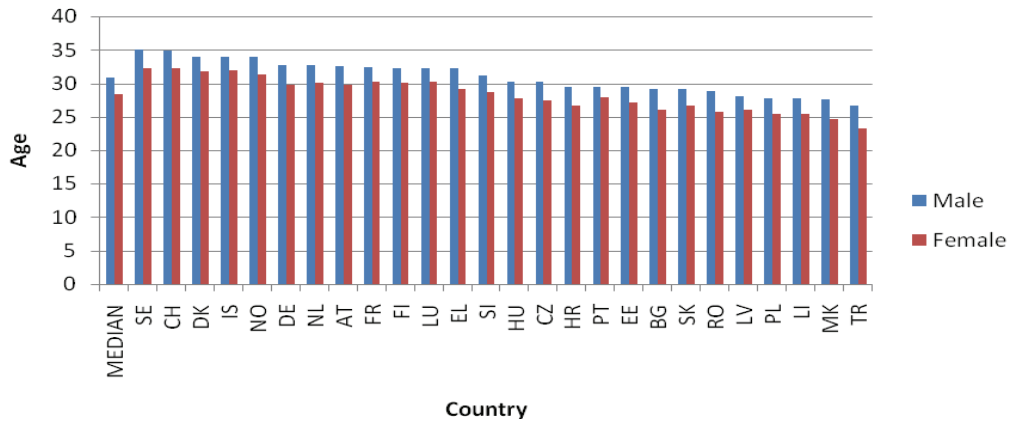
A Flash Eurobarometer report (2007) found that the most common reason for young people staying at home was due to an inability to afford to move out and a lack of affordable housing. In contrast a further study on men and women's timing for leaving home found a stronger influence on the dynamics within the family home and the educational level and social status of the parents had a greater influence (Blaauboer et al., 2010). Decreasing levels of parental support and being more romantically active have also been found to be strong indicators of when a child may leave the home (Seiffge-Krenke, 2010). There has been a suggestion that the 'Hotel Mama' phenomena is also at play.

1.3.6.1 Marriage & Divorce

There is an overall trend across Europe that men are getting married later as compared to 1995, with Denmark and Poland having the lowest increase (just over 2 years), and Hungary now seeing a 5 year delay as compared to 1995

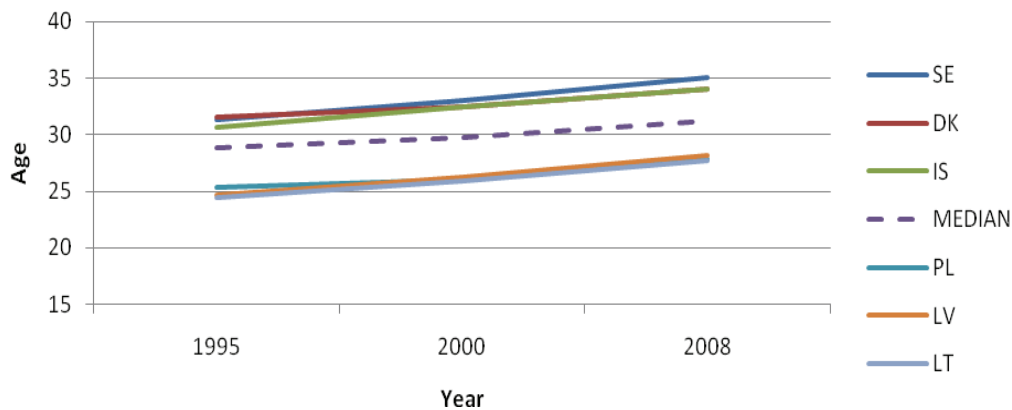
(for most countries it is just over 3 years). Fig. 1.3.10 demonstrates the country by country variation in mean age of marriage for men and women in 2008, with Fig. 1.3.11 showing the highest and lowest average mean age of marriage over the time period 1995 to 2008.

Fig. 1.3.10 Mean age of 1st marriage, by sex and country, 2008



Source: Eurostat Demo_nsinager

Fig. 1.3.11 Time trends in mean age of marriage for men, selected countries, 1995–2008



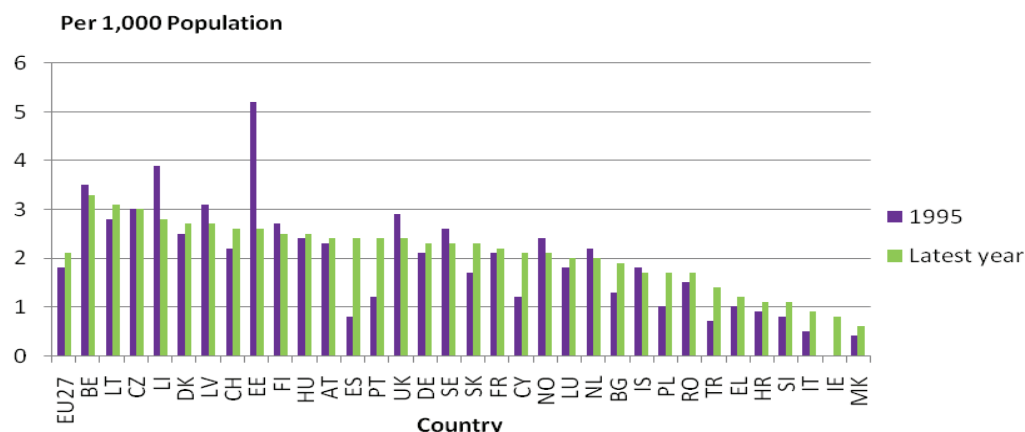
Source: Eurostat Demo_nsinager

There is a trend for more couples to co-habitat either as a permanent alternative to marriage or prior to marriage.

The rate of divorce over the last ten years has continued an upward trend in the majority of countries across Europe, with Spain seeing the biggest increase (see Fig. 1.3.12), but there are countries where there is either a very small increase or a decrease with Estonia seeing the biggest decrease in those getting

divorced. A review of partnership duration in the UK found that 16 to 54, around four in five adults (82 per cent) that were married in 1991 were living with the same partner in 2001, with a smaller number (61%) of those who were cohabiting retaining the same partner over this time period (Wilson & Stuchbury, 2010).

Fig. 1.3.12 Trends in divorce rate per 1000 population, by country, 1995-2008



Source: Eurostat demo_ndivind

The importance of being in a stable relationship is particularly important for men as it has been found that men who were never-married, divorced and separated are more likely to report poorer health, and also more likely to die prematurely, than men who are married (Young et al., 2010, Martikainen, 2005, Lund et al., 2004).

A further notable consequence of the higher divorce rate is that a greater number of grandfathers and paternal grandparents have fewer contacts with their grandchildren, take part in fewer activities with them and feel less close than those grandparents who have never been divorced. This has been suggested as being a consequence of less close relationships between older people who have experienced divorce and their adult children (Glaser et al., 2010).

1.3.6.2 Men as fathers

It is a new phenomenon in human civilisation for men to be present at the birth of their own children, to be involved to any great extent in caring for their small children, and taking parental leave, not to mention being primary caregivers for newborn babies and infants. Men's participation at deliveries and in infant care

is a revolution in men's behaviour, in gender relations, and in men's relations with their children.

Among the European countries the number of fathers who take parental leave is still low but considering the fact that cultural norms and stereotypical gender roles have existed for hundreds of years, the number of men taking an active parental role can also be seen as relatively high. Men's participating at the deliveries of their children has become generally common in several European countries (Madsen & Munck, 2001). The Nordic countries are in front of European fathers taking parental leave thanks to many years of gender equality cultures and to father quotas in some of the Nordic countries and other incentives to engage men. In Iceland fathers take an average of twelve weeks leave, in Sweden and Norway they take six weeks, while it is four weeks in Denmark. Around 80 percent fathers in the Nordic countries take parental leave (Madsen, 2009). According to the report 'Can Men Do It?' by the Nordic Council of Ministers most Nordic men want an extended care period for fathers, and there is gradual movement toward that goal. At the same time the majority of men want a caring and family-friendly development both in the workplace and at home (Holter, 2003).

In other European countries the percentages are significantly lower. Gender stereotypes regarding parent/child-relations, differences in men's and women's abilities to nurture children as well as men's (and their partners') wishes for equality play a central role in the inequalities affecting men in this area: interaction with labour-market obstacles and the ways health systems and -professionals serve men as fathers, the ways economic and structural conditions hinder men's engagements in family life as well as the ways cultural practices and traditions prevent men from changing. However there are movements all over to change this (European Fatherhood, 2007). For example The Council of the European Union on March 2010 adopted a directive extending workers' rights to parental leave from three to four months for each parent of which at least one of the four months cannot be transferred to the other parent. This is explicitly motivated by the wish to encourage fathers to take the leave in the revised Framework Agreement on parental leave (Council Directive, 2010/18/EU).

These changes and initiatives around Europe are mirroring the challenges in professional and family life as they are and are reflecting developments of

gender equality on the labour market. Studies on the ability of fathers to take care of newborns and infants show that the fathers are fully capable of doing so and that the care they provided for their infants was similar to the mothers'. Fathers can be just as loving, caring, and effective parents as mothers (Geiger, 1996; Madsen, Lind & Munck, 2002).

Fatherhood has been and is central to changes in masculinity in Europe. These changes have shown that care giving and close relationships are possibly part of a multifaceted masculinity in which a man does not need to lose any of his masculine identity but gain more features.

Men's engagement in family life and upbringing seem to also have positive effect on men's health and lives in general. Men who avail of parental leave are less likely to get divorced, and men living with partners generally have better health. Furthermore it has been established (WHO, 2007), that men engaging in parenthood have better physical and mental health. It is also established that men's health is improved for men engaging in different positions as husbands, parents and professional workers, and that men who are active in the domestic sphere and engage themselves as fathers in relations with their children develop less negative health behaviour and have lower associated risks of death and ill health (WHO, 2007).

1.3.7 Education

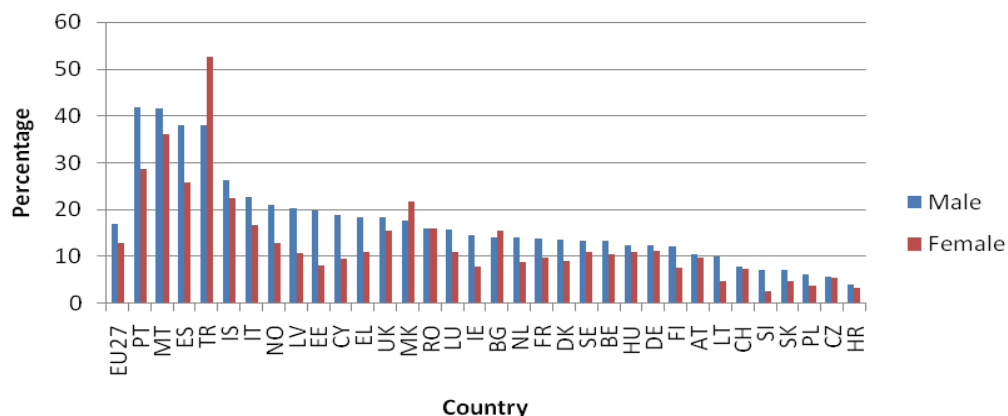
Educational attainment influences overall health and wellbeing: men with professional qualifications have a much higher life expectancy and lower levels of long term health problems. Having limited education also increases the degree of social exclusion experienced. Boys are much more likely to be early school leavers.

Boys have a higher number of developmental disorders, such as Autism, Asperger syndrome, delayed reading, stammer, ADHD, Tourette's Syndrome, dyslexia, which can affect their educational attainment (Kramer, 2000). There are also cultural factors that can be seen to influence how boys view education (Frosh et al., 2002). The legal obligation to attend schools means that there is little difference across the countries for boys and girls through ISCED⁷ 1 and 2,

⁷ International Standard Classification of Education (ISCED)

however, where an element of choice is available we see that boys are much more likely to be early school leavers (Fig. 1.3.13).

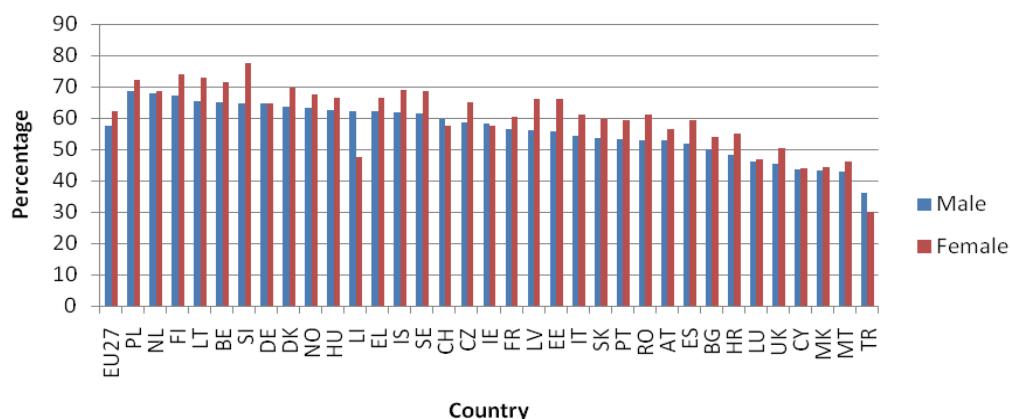
Fig. 1.3.13 Early school leavers, percentage of males and females aged 18-24 years with at most lower secondary education and not in further education or training, by country, 2008



Source: Eurostat educ_iatt

This trend is seen in the data relating to those who are still engaged in education in the 15-24 age range, where there are both gender and national differences evident (Fig. 1.3.14).

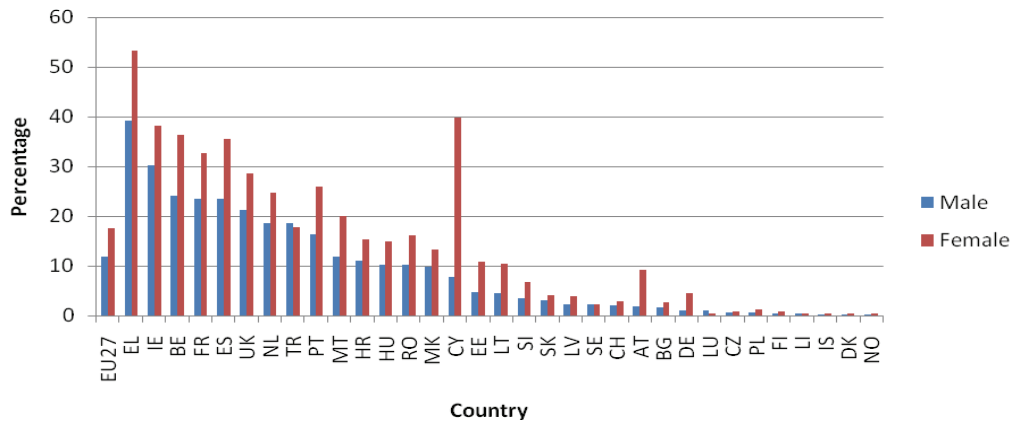
Fig. 1.3.14 Students (ISCED 1_6) aged 15-24 years - as a percentage of corresponding age population, by sex and country, 2008¹



Source: Eurostat Educ_ipart_s, ¹except MT (2007)

Once upper secondary education commences we see a growing gender and country divide, with more girls continuing their studies at this level (Fig. 1.3.15).

Fig. 1.3.15 Students (ISCED 5-6) aged 18 years - as a percentage of corresponding age population, by sex and country, 2008¹

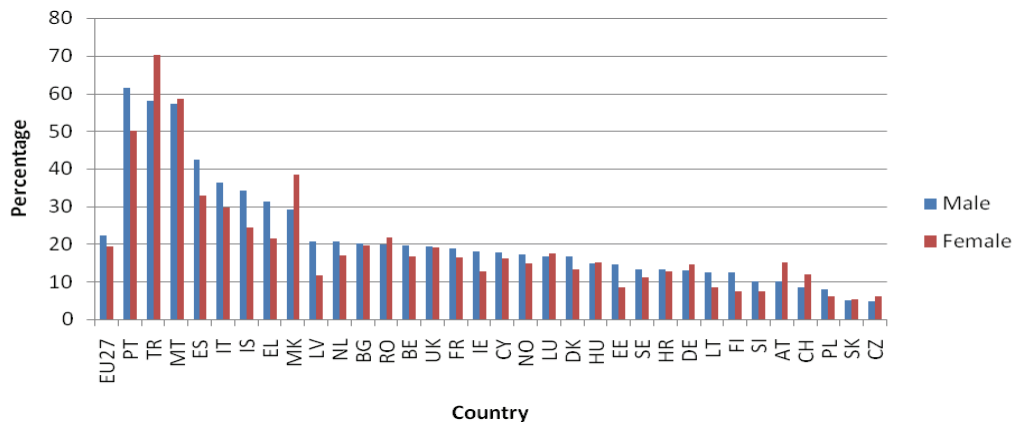


Source: Eurostat Educ_ipart_s ¹except MT, RO (2007)

Boys tend to choose vocational programmes of study and girls opt more for the general programmes. Boy's secondary education is more likely to prepare them to move directly into the labour market, specifically commerce and industry, as compared to girls who are mainly being prepared for tertiary education, where they outnumber the boys by a ratio of 1.23:1 (Eurostat, 2009a p78). The choice of courses is again divided by the sexes in the majority of countries, where men are concentrated in the sciences, engineering, manufacturing and construction while women are more likely to be in education, humanities and arts, health and welfare. There remains a higher number of men studying at the post-graduate level (ISCED 6), but these tend to be in science based subjects.

When the educational attainment data is broken down by age we can see there are still over 20% of men aged 25-39yrs with only basic level education (Fig. 1.3.16), with this Fig. rising to over 60% for men in Portugal.

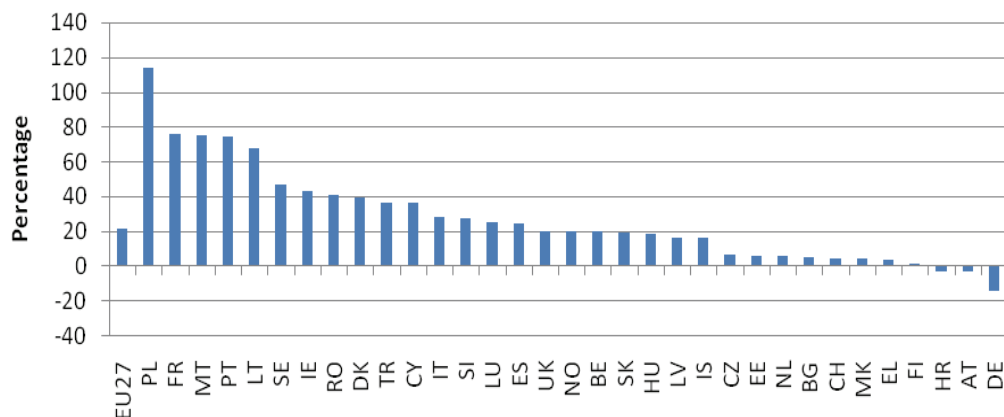
Fig. 1.3.16 Percentage of young males and females (ages 25-39 years) with pre-primary, primary and lower secondary education - levels 0-2 (ISCED, 1997), by country, 2009



Source: Eurostat Ifsa_pgaed

There has, however, been an increase (see Fig. 1.3.17) of some 22% across the EU27 in the number of younger men (25-39 years) having had a tertiary level education as compared to older men (40-59 years). This jump is most marked in Poland where there has been a 114% increase, but large changes have also been seen in France, Malta, Portugal and Lithuania. There are some countries (most notably Germany, 14.3%) that retain a higher number of older men with tertiary level education.

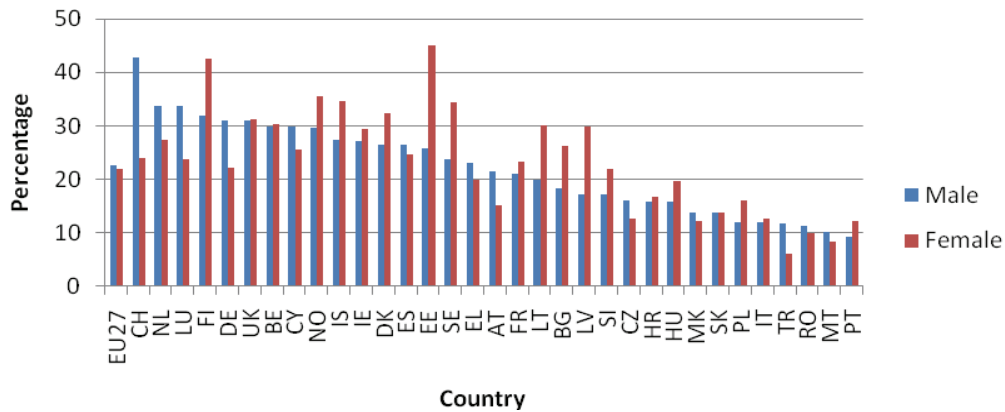
Fig. 1.3.17 Percentage difference of males with tertiary school experience between age group 20-39 and 40-59 years, by country, 2009



Source: Eurostat Ifsa_pgaed

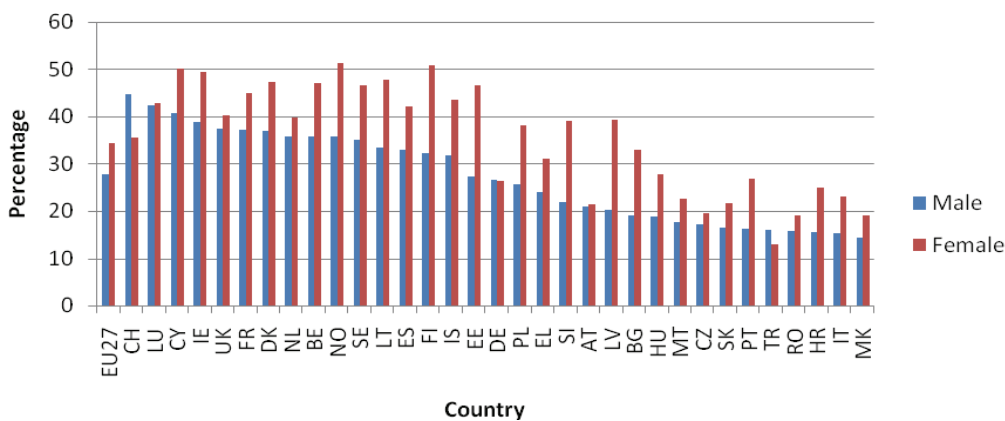
When comparison is made with women it can be seen that in the older age range (40-59yrs) there are slightly higher number of men with tertiary level education (Fig. 1.3.18), this pattern has been reversed in the younger age range (Fig. 1.3.19).

Fig. 1.3.18 Comparison between males and females with Tertiary education - levels 5-6 (ISCED, 1997), for 40-59 age range, by country, 2009



Source: Eurostat Ifsa_pgaed

Fig. 1.3.19 Comparison between males and females with Tertiary education - levels 5-6 (ISCED, 1997), for 25-39 age range, by country, 2009

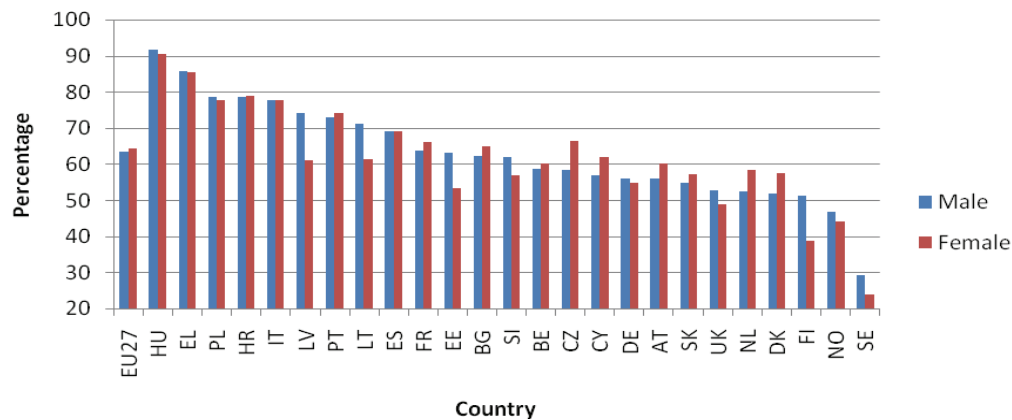


Source: Eurostat Ifsa_pgaed

The data relating to those who are not participating in Adult Education (Fig. 1.3.20) shows that there are similar numbers of men and women. However, marked differences exist between the countries; most noticeably between the

extremes of Sweden and Hungary where nearly all of the population in Sweden are engaged in Adult Education compared to less than 10% in Hungary.

Fig. 1.3.20 Percentage of males and females not participating in Adult Education and Learning, by country, 2007



Source: Eurostat trng_aes_106

1.3.8 Working Life

The employment status of men and women has changed considerably over time and it is now much more common for men and women living as couples to both be employed, either on a full time or part time basis (Eurostat, 2009b), especially when there are no children. When children are present then there is a shift to either more work for both partners or towards either the woman or man giving up their job. It should be noted however that, across the EU 27, employment rates for women drops 11.3% and for men increases by 7.7% when children are present (Eurostat, 2009b). With more children the rate of employment continues to fall for women, such that the task of child rearing is still very much seen as a female role across Europe, though there are hopes that this can be shared more equally (see above 1.3.6.2).

Analysis of the use of time for men and women highlights that work forms the major part of most men's active lives (Aliaga, 2006). Connell (2000) argues that in most capitalist societies men are defined as the 'breadwinner' and being at gainful work is a very important factor in a man's life bringing with it the associated advantages of being a wage earner. Johoda (1979 see Paul & Batinic, 2010) gives a useful framework for identifying the broader benefits of work. She identified that there is a 'latency of work', with the actual act of going to work creating:

- The imposition of a time structure on the waking day – 'traction';

- Shared experiences and contacts outside the home;
- A link for the individual to goals transcending his own purpose – ‘sense of purpose’; and
- The personal standing and identity – ‘status’

However, there are also disadvantages for example working longer hours reduces the amount of flexibility a man may need for accessing health care (see section 1.5) and the working environment itself may be hazardous, either to their physical or emotional wellbeing (see section 2.4).

Losing a job through unemployment though can have even more dire financial and emotional problems for the man and those who are dependant on his income. These effects are greater than just monetary:

- strain in relationships with family and friends
- community breakdown in the case of large layoffs (increased crime and other social problems)
- loss of self-esteem
- problems with structuring time and social identity
- where there are additional problems (e.g. psychosis/ disabilities) the experience of unemployment compounds psychological difficulties
- increase in suicide, depression, and acute episodes of schizophrenia

(Freund & McGuire, 1991)

In 2000 the Lisbon European Council set the EU the goal “to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion”. This Lisbon Strategy for Growth and Jobs and the Sustainable Development Strategy was based on a prediction of major structural challenges in Europe – globalisation, climate change and the ageing population. The goal of these two initiatives was to see survival through the economic downturn and to prepare for the demographic challenges emerging.

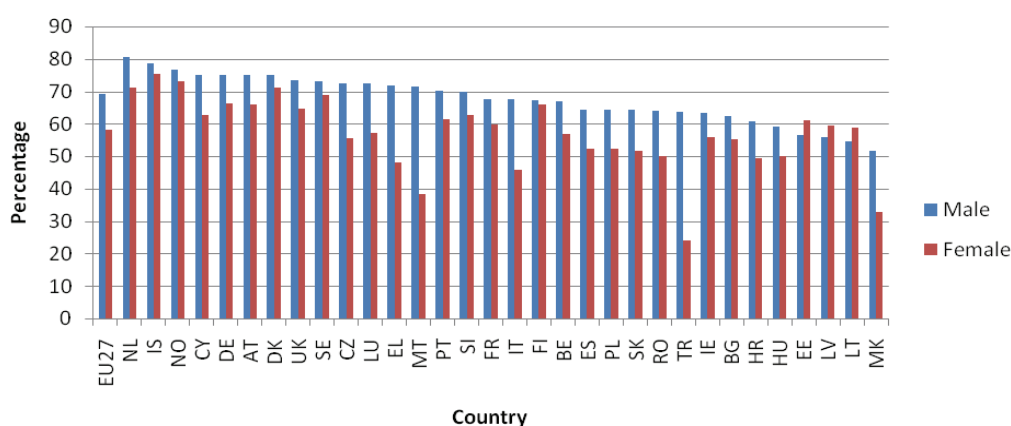
The aspiration was for the employment rate to reach 70% for men and over 60% for women by 2010, thus moving towards the reduction of the gender inequalities that had existed. Building on this the Europe 2020 strategy for jobs and growth was adopted in June 2010⁸ with the aim of raising to 75% the

⁸ <http://ec.europa.eu/eu2020/pdf/115346.pdf> last accessed 12/12/10

employment rate for women and men aged 20-64, through the greater participation of young people, older workers and low-skilled workers and the better integration of legal migrants. Amongst its other aims it set to improve education levels, in particular by aiming to reduce school drop-out rates to less than 10% and by increasing the share of 30-34 years old having completed tertiary or equivalent education to at least 40%.

By 2007 good progress was being made with more women entering the workforce and a period of relative stability saw an increase in men's jobs. In 2006 79.1% of Europeans aged 25 to 49 were in employment, but the biggest increase had been in female employment rates that had risen 3.6% since 2000 (Eurostat, 2009). Since then, however, a global recession has struck, affecting adversely the overall growth of the EU, although some countries were affected more than others (Eurostat, 2010b). The first quarter of 2010 saw the total population employment rate at 63.7%, a dip from the 64.6% in the same quarter for 2009. A breakdown of the employment rate for men and women (Fig. 1.3.21) show that men have a higher employment rate overall (EU27 69.3%) as compared to women (58%) and this tends to be the case for the majority of countries, the exceptions being Estonia, Latvia and Lithuania.

Fig. 1.3.21 Employment rates for 15-64 years old males and females, by country, 2010 (first quarter)

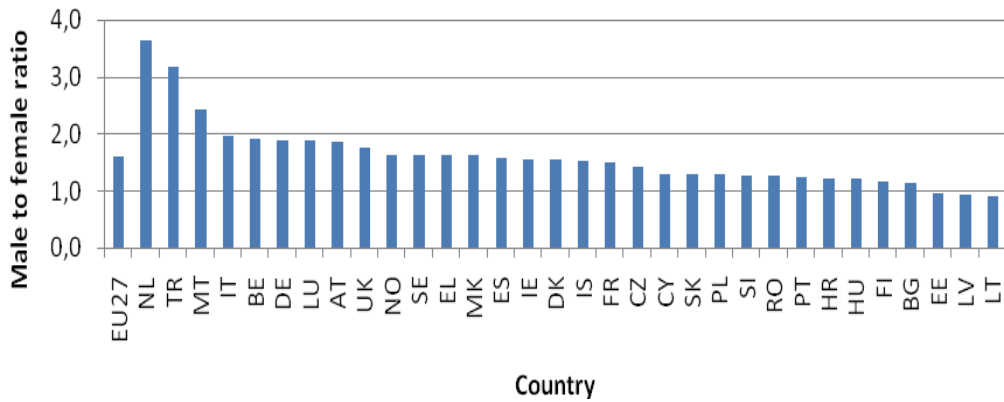


Source: Eurostat lfsi_emp_q

Across Europe the tendency is for there to be more men in full-time employment and more women in part-time employment, though this isn't always the case. In Estonia, Latvia and Lithuania there is a higher proportion of

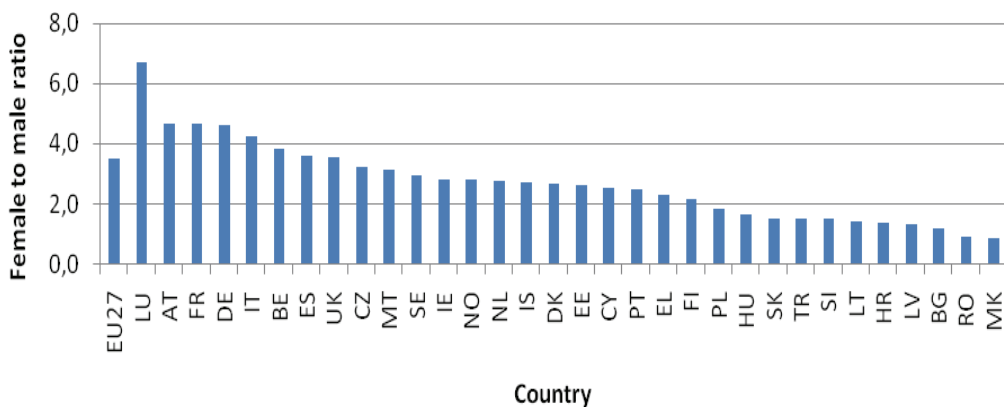
women in full time employment and in the majority of the Eastern European countries there are more men in part-time work than women.

Fig. 1.3.22 Ratio of males to females in full time employment, by country, 2009



Source: Eurostat lfsq_epgais

Fig. 1.3.23 Ratio of females to males in part time employment, by country, 2009

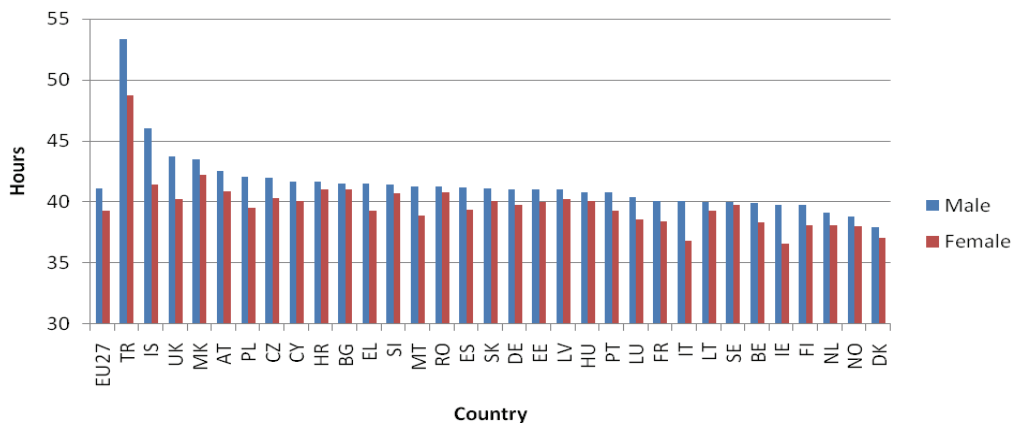


Source: Eurostat lfsq_epgais

For some men the move into part time work has been a result of a lack of full time employment, especially in Bulgaria, where over 55% of part-time work is seen as involuntary (Eurostat, 2010b). For men across EU27 in 2006 43% of men were in part time work because they could not find a full time job, however 16% had chosen this type of work due to a combining work with education (Eurostat, 2009).

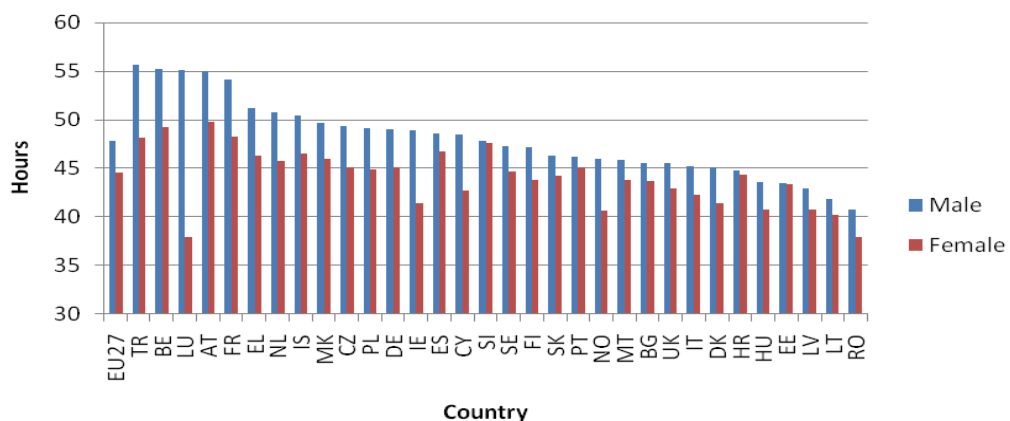
Across all the countries where men who are employed full time, longer hours are worked, with an EU27 average of 41.1 hours for men and 39.3 hours for females (Fig. 1.3.24). Those men who work self employed have the longest hours with the EU average of 47.8 hours for men and 44.6 hours for women. Turkey, with 53.3 hours, Iceland, with 46 hours and the UK and Malta with over 43 hours head the table, with Denmark with just under 38 hours working the least hours (Fig. 1.3.25).

Fig. 1.3.24 Hours worked by Full-Time employees, by sex and country, last quarter of 2009



Source: Eurostat lfsq_epgais

Fig. 1.3.25 Hours worked by Full-Time self employed males and females, by country, last quarter of 2009

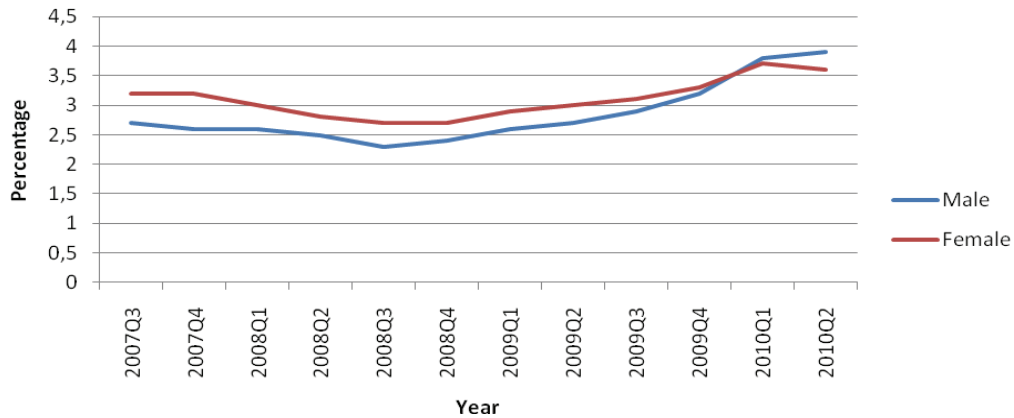


Source: Eurostat lfsq_epgais

There is, however, increasing unemployment in men, for the first time the male long term unemployment rate is greater than female unemployment (see Fig. 1.3.26). This highlights a feature of the most recent recession across Europe in

that it seems to have hit male employment quite hard due to manufacturing being much more affected than services, especially engineering and the construction industries, which employ many more men (Eurostat, 2010b).

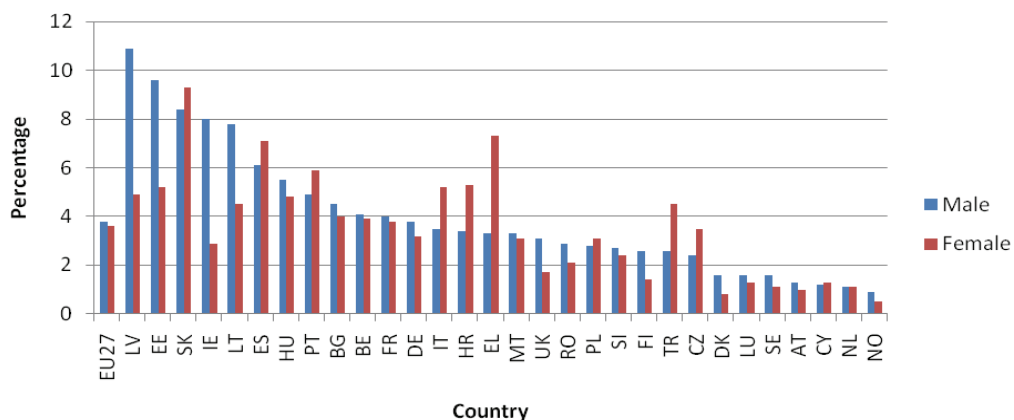
Fig. 1.3.26 Long-term unemployment - quarterly average, by sex



Source: Eurostat une_ltu_q

The long term unemployed (those out of work for 12 months or more) has risen for both men (from 2.6% to 3.8%) and women (from 2.9% to 3.6%) from the first quarter 2009 to the first quarter 2010. The current picture shows that Latvia has nearly 11% of its male population in long term unemployment whereas Norway has less than 1% (see Fig. 1.3.27)

Fig. 1.3.27 Long term unemployment, percentage of active population, by sex and country, first quarter 2010

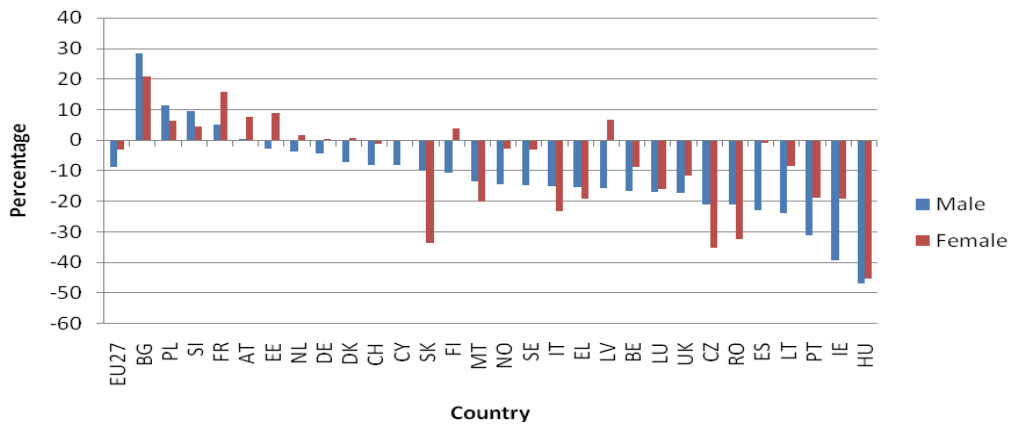


Source: Eurostat une_ltu_q

When the age breakdown is applied to the data on employment it can be seen (Fig. 1.3.28) that in the 15-24 age range there are only a few countries that

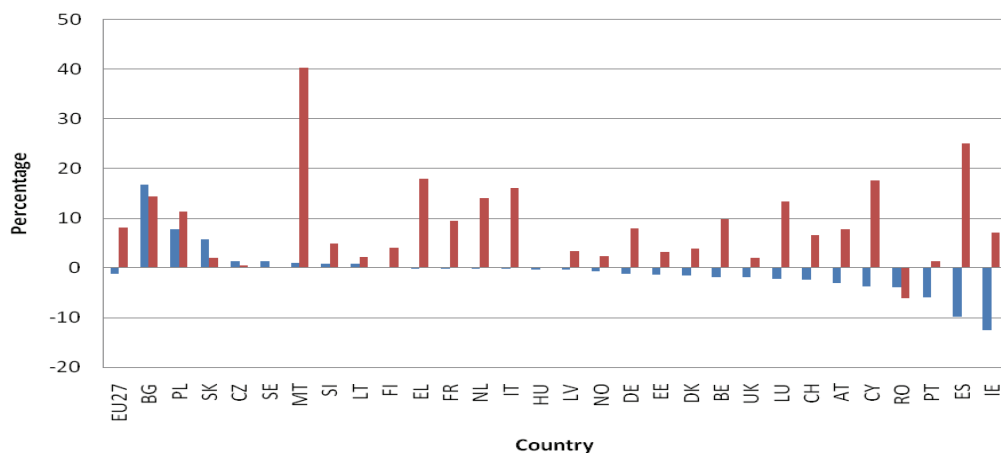
have seen a growth in youth employment since the year 2000, with the rest of the countries showing a fall, with Hungary seeing nearly 47% reduction. In the age range 25-54 (Fig. 1.3.29) we see an overall reduction in male employment (-1.2%) and an increase in women's employment (8.14%). There are some countries where the male employment has gone up, but the majority are seeing a fall. The picture in the 55-64 age range is more positive with a growth of 16.35% for males and nearly 38% for females for EU27 (Fig. 1.3.30). When this is coupled with the fact that we are also seeing a rapid ageing of the workforce the ability for industry to keep their older men in the workforce for longer is of prime importance.

Fig. 1.3.28 Percentage change in full time employment rate for males and females, ages 15-24 years, by country, 2000-2009



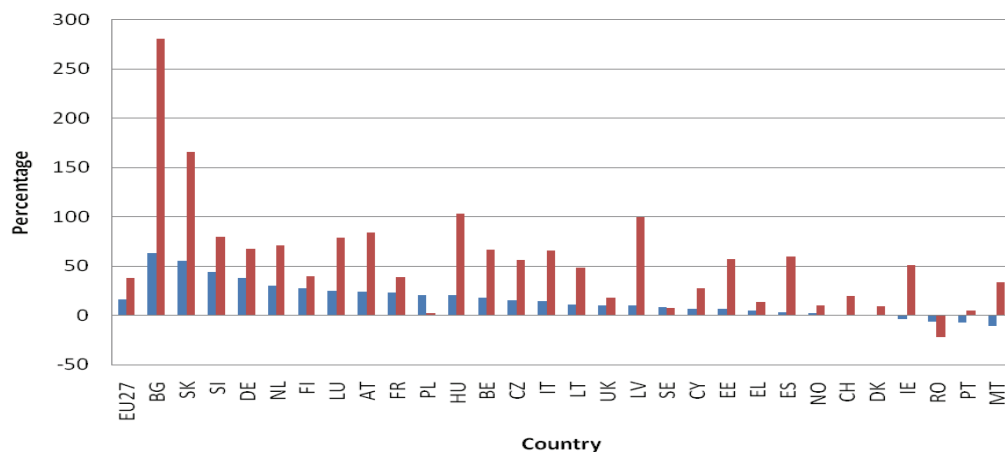
Source: Eurostat lfsi_emp_a

Fig. 1.3.29 Percentage change in full time employment rate for males and females, ages 25-54 years, by country, 2000-2009



Source: Eurostat lfsi_emp_a

Fig. 1.3.30 Percentage change in employment rate for males and females, ages 55-64 years, by country, 2000-2009.



Source: Eurostat lfsi_emp_a

1.3.9 Migrants & asylum seekers

A wide range of health issues are connected to the migration of men, including communicable and non-communicable diseases, maternal and child health, work accidents, and psychological problems. The migratory process as well as the economic and social conditions of migrants can have a negative impact on health. Many of health problems of migration relate to the specific features of health care utilisation. The health of migrants might have significant social and economic consequences for host countries as well.

The migration process is usually a stressful event. It places migrant men at increased risk of morbidity. Social, economic, cultural and linguistic barriers may pose obstacles using health services and to the capacity of services to meet the needs of migrant workers. Many migrant men also find themselves working and living in hazardous conditions.

Migrant men are not necessarily disadvantaged in all aspects of health. Many studies have shown that chronic diseases are less prevalent in some migrant groups compared to host European populations. Many European countries have selection processes which deny admission to individuals with existing illness or support self-selection of healthier individuals. Another reason relates to a difference in timing between the health benefits and the health risks of migration. For several conditions, many migrants may display better health indicators than the host population. However, over time these advantages

decrease and migrants begin to assume the characteristics of the host populations.

The healthy immigrant effect is in fact on the basis of the literature a consequence of several health and social factors. Many immigrants arrive from regions of the world where lifestyle-associated risk factors contributing to chronic diseases, particularly obesity, inactivity and diet, are less prevalent than those observed in the developed world. European countries that have complex immigration selection processes often search for younger and better educated immigrants, who may also be better able than older, less healthy immigrants to cope successfully with the physical, psychological and sociological challenges of immigration. Immigration medical requirements and screening for chronic diseases may deny admission to individuals with existing illness or support self-selection of healthier individuals.

For several conditions and illnesses, many migrants, for example, on arrival, display better health indicators than the host population.⁹ Examples of this include body mass index, dietary practices, some STIs, the use of health services and self-reported health status. Longitudinal studies in some major receiving countries suggest that over time these advantages decrease and migrants begin to assume the characteristics of the host populations. Studies on this effect in Europe are limited but there is growing evidence of the healthy migrant effect in several conditions.

The following explanations for the differences in health between ethnic groups have been identified

- genetic differences;
- cultural differences;
- socioeconomic position;
- short term migration history;
- ethnic identity.

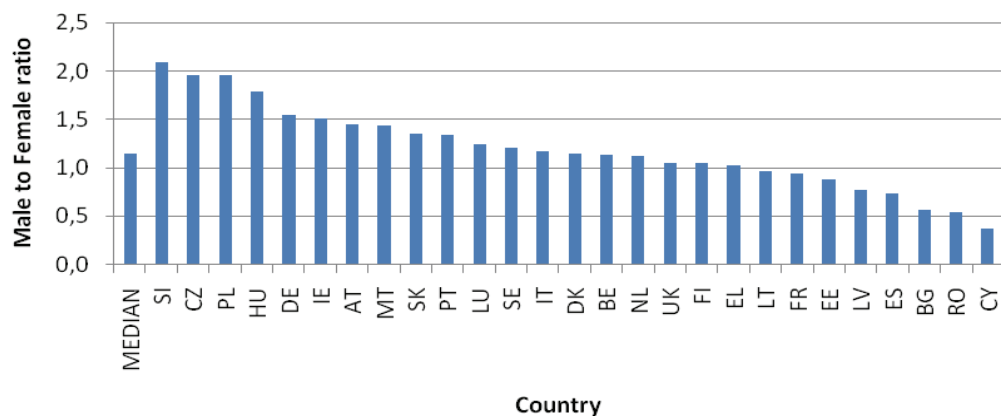
⁹ Kennedy S et al., (2006) The Healthy Immigrant effect and immigrant selection evidence from four countries. Available at: <http://www2.carleton.ca/sppa/ccms/wp-content/ccms-files/chesg-mcdonald.pdf> last accessed 15/12/10

In terms of determinants, varying patterns in risk factor prevalence (smoking, inactivity, alcohol consumption and so on) are also important explanatory factors for the specific features of migrant's men health.

On arrival being in hazardous working and living conditions coupled with being unaware of how the host countries health services works and younger men's attitudes to risk taken and reluctance to seek help makes them particularly vulnerable (Carballo & Mboup, 2005) (see also Section 1.5 - Accessing Health Services).

Across Europe, about a third more men than women emigrate (fig 1.2.31), with Slovenia having over twice as many men than women leave the country. There are nine countries where more women leave: these tend to be in Eastern Europe.

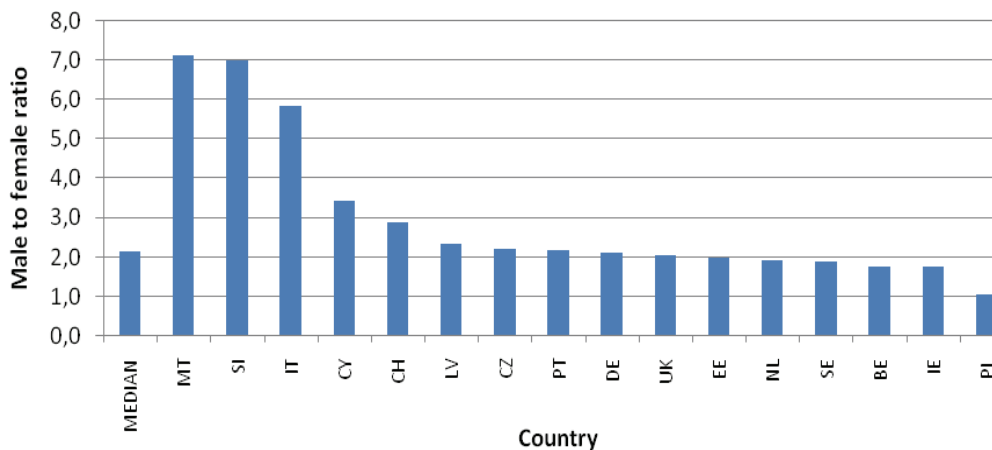
Fig. 1.3.31 Male to female ratio of emigration, by country, 2008



Source: Eurostat migr_emi2

The number of asylum seekers across Europe varies considerably, with just 20 men seeking asylum in Latvia compared to 22670 in Italy and 12015 in the UK. In all countries there are higher numbers of male asylum seekers compared to female (Fig. 1.3.32).

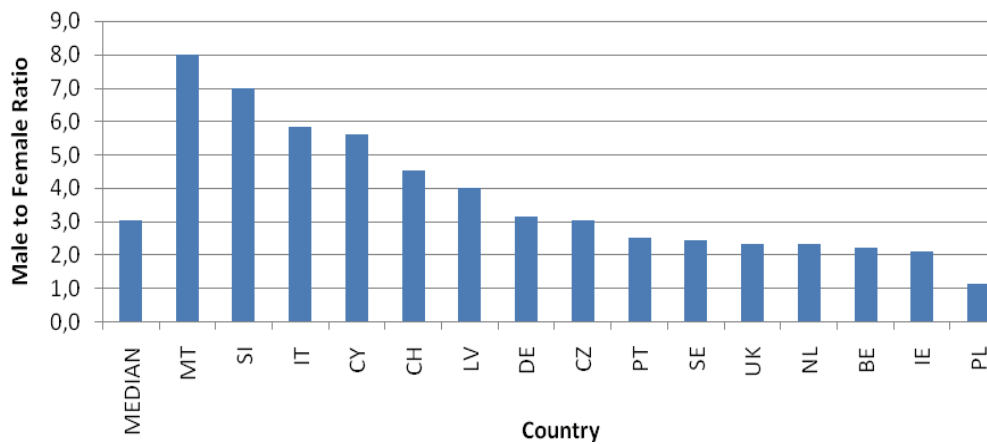
Fig. 1.3.32 Male to female ratio of new asylum applicants, by country, 2008



Source: Eurostat migr_asyappctza

Predominately it is in the younger age group that we see higher levels of men seeking asylum (Fig. 1.3.33)

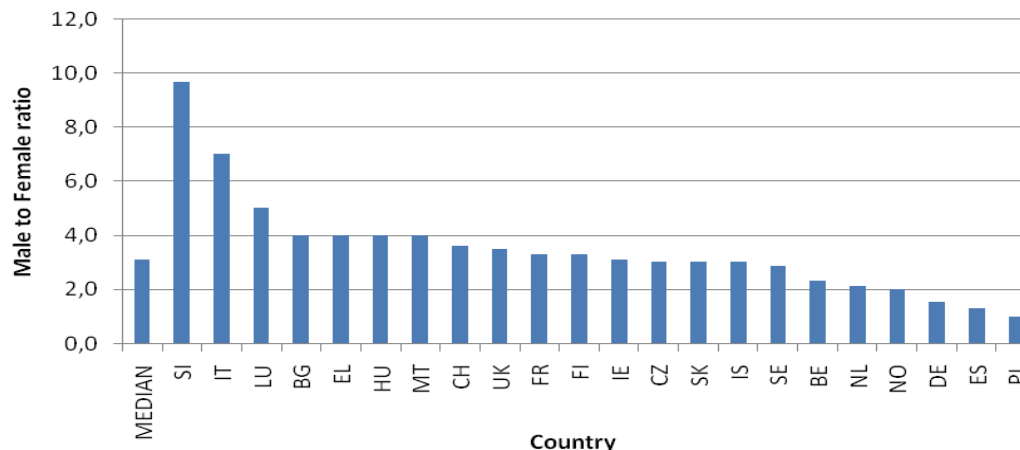
Fig. 1.3.33 Male to female ratio of new asylum applicants, ages 18-34 years, by country, 2008



Source: Eurostat migr_asyappctza

Men also feature more highly in the failed asylum data; the majority of those who are rejected are male (Fig. 1.3.34).

Fig. 1.3.34 Male to female ratio of asylum applications withdrawn, by country, 2008



Source: Eurostat migr_asywitha

The different groups of migrant men, such as students, economic migrants, posted workers or irregular mobile workers are likely to have specific patterns of health.

PROMINSTAT (Promoting Comparative Quantitative Research in the Field of Migration and Integration) is a research project funded under the 6th Framework Programme of the European Commission (2007-2010). It compiled meta-information on statistical datasets on migration, integration and discrimination in 29 European Countries (EU-27 plus Norway and Switzerland). Through country reports and a series of comparative studies on particular topics of data collection PROMINSTAT provides in-depth analyses of the scope, quality and comparability of statistical data collection on migration in a wide range of thematic fields. These include: population stocks and general demographic characteristics, migration flows, residence permits, acquisition and loss of citizenship, asylum seekers and refugees, irregular migration, employment, income, transfers and social benefits, housing and residential patterns, health and access to healthcare, education, family and household, political participation and crime and justice. The main aim of PROMINSTAT is to promote comparative quantitative research on migration, integration and discrimination in Europe, to enhance the knowledge base on statistical data collection in this field and thus to contribute to the improvement of statistics on migration, integration and discrimination. PROMINSTAT may offer a sound ground for further men's health research activities.

1.3.10 Prisoner and Offenders

Men constitute the majority of the world's prison population, which currently stands at some 9.8 million people (Walmsley, 2009). Across Europe, approximately 2 million people are imprisoned many of whom will have multiple health and social problems (WHO, 2010). Those entering the criminal justice system have been often been subjected to a lifetime of social exclusion, including poor educational backgrounds, low incomes, meagre employment opportunities, lack of engagement with normal societal structures, low self-esteem and impermanence in terms of accommodation (including bouts of homelessness) and relationships with family members (Social Exclusion Unit, 2002). Research has also consistently demonstrated that the prevalence of ill health in the prison population is higher than what is reported in the wider community (Senior & Shaw, 2007) and international evidence shows that prisons in Europe hold a very high proportion of prisoners with mental health disorders and drug dependency problems (WHO, 2008). Factors within prison systems can demote aspects of prisoners' health. Examples include long periods of time locked in a cell; overcrowded conditions; a lack of privacy; limited autonomy, choice or control; bullying and violence and limited amounts of exercise (Woodall, 2010a).

Paradoxically, prisons can be both places of health risk and health improvement for men. The risks are many and varied:

- Violence – physical and sexual
- Emotional – through separation from families and the effect of incarceration
- Long term social harm through separation from families and work
- Availability of drugs
- Close proximity to infections such as TB and HIV.

Prisons can offer the opportunity for rehabilitation, both in terms of tackling the high proportion that go on to re-offend. They can also give opportunities for working with men to help to improve their health and well-being. Prisons can represent an escape from the toxic environments from which many prisoners have come, whilst drug rehabilitation and the teaching of life skills such as anger management and work skills can provide a basis for the successful re-integration within society (Woodall, 2010b).

Prison health is now firmly on the public health agenda of Europe and this has been mainly due to the work of the WHO and their Health in Prisons Project (HiPP), which was initiated in 1995 (Gatherer et al., 2005). The HiPP has a number of aims but functions through creating and disseminating good practice and working towards influencing prison policy and practices in its member countries. Currently, thirty-eight countries across Europe are participating at a policy making level to reduce public health risks through improving health in prisons (Møller et al., 2009).

1.3.11 The homeless

Being homeless is seen as one of the most extreme examples of poverty and social exclusion in European society (Eurostat, 2010a). There are many reasons for experiencing homelessness and housing deprivation, which include:

- structural factors, such as lack of access to, or unavailability of, affordable housing; limited access to the labour market; lack of social services;
- social factors, such as barriers to social inclusion or the marginalisation of a particular group in society;
- personal factors, such as poor mental health, alcohol or drug addiction, a low level of education and lack of qualifications, gambling problems, a criminal record, exposure to domestic violence or lack of family support.

(Eurostat, 2010b)

The key factors that emerge from a number of countries experience is that homelessness is usually associated with parents, other relatives or friends no longer being able or willing to accommodate them (Hughes, 2010), with alcohol and drug abuse also being strongly implicated. The numbers who are affected are difficult to determine, as many do not enter the official statistics as many countries do not collect the data or use differing definitions of homelessness (Edgar & Meert, 2006). A further problem with identifying numbers is that many are living in over crowded conditions or with friends and relatives (or 'sofa surfing'), an estimate is that there are 380,000 hidden homeless in the UK alone (Crisis, 2004).

Though many women are affected by homelessness (often as a result of domestic violence). more men find themselves having to sleep rough. A study in the Netherlands found that 88% of the homeless were men (van Laere et al., 2009) whilst a UK based study found that young men were twice as likely to be

homeless than young women (Stephens, 2002) with a further study for the UK Government found that 90% of those who sleep rough are male (Social Exclusion Unit, 1998).

There is a particular problem with men who have found it difficult making the transition from an institution back into civilian life. A high number of ex-servicemen are affected by this through a combination of alcohol abuse and the reaction to the psychological trauma makes it difficult for families to cope and they end up homeless (Busuttil, 2010). In the 1990 research from a UK charity (Randall & Brown, 1994) estimated that 25% of the homeless had been in the armed forces, but through a concerted effort this has been reduced down to less than 6% (Johnsen et al., 2008). Prison leavers are also a group who feature high in the data on the homeless, with 34% of London's rough sleepers having been in prison. Some of their problems are due to their lack of accommodation prior to imprisonment, some due to losing tenancy whilst in custody and for others due to loss of family contact as a result of their crimes (Social Exclusion Unit, 2002).

Immigrants are also at risk (Edgar & Meert, 2006) through their precarious working conditions as outlined above or through arriving in a country without accommodation or support being available. In some countries, illegal immigrants constitute the greatest proportion of those sleeping rough or using overnight shelters, the majority of whom are male.

The health implications of sleeping rough are profound, with increased risk of premature death, serious illness including increased risk of pneumonia, TB, sexually transmitted infections, new and compounded effects of existing mental health problems and the importance of active support to help the homeless is acknowledged:

“What happens to these people once they lose their home depends not only on the friends and relatives that they are able to call on for help but also the accommodation and wider support provided by public authorities and voluntary organisations. This support is not only crucial in preventing them ending up on the street but also in enabling them to get out of the situation they are in, in particular to find a job and to avoid becoming marginalised in society” (Eurostat, 2010a, p 179)

Services are being set up to cater for homeless men (see for example McCullagh, 2010) but these are limited, with many countries having no specific assistance for men or programmes in place to help prevent men who are at risk of homelessness or are on the streets already.

1.3.12 Men who are disabled

Disability has a marked affect on the health of men, their masculine identities, and the interaction between masculinity and health (e.g. Burns at al., 2009; Sparkes & Smith, 2002).

Disability comes in many forms and men are seen to have high levels of accident and work related disability. For instance it is estimated that about 7% of European workers have some form of work related hearing problem. The WHO considers adult onset hearing loss as the 15th most serious health problem (Mathers, 2002). The sectors identified as having the biggest problems are those mainly employing men: agriculture, forestry, fishing, mining and quarrying, extraction, energy and water supply, manufacturing, and construction (EASHW, 2005).

With the changes in modern warfare and improvements in battlefield health care there are a significant number of young men returning from conflict with severe disabilities.

Improvements in the care of the young disabled have resulted in a growing number of men entering adulthood with profound physical and learning disabilities. In addition to these men with very special physical and emotional health needs there are a much larger cohort of men with mild to moderate learning difficulties trying to negotiate themselves through an increasingly complex society (Cambridge & Mellan, 2000; Elliott at al., 2003).

1.3.13 References

- Aliaga C (2006) How is the time of women and men distributed in Europe? Statistics in Focus. Population and Social Conditions 4/2006. Eurostat, Luxembourg
- Berrington A, Stone J, Falkingham J (2009) The changing living arrangements of young adults in the UK. Population Trends 138 (winter): 27- 37
- Blaauboer M, Mulder CH Aslan Zorlu A (2010) Distances between Couples and the Man's and Woman's Parents. Available at

- <http://onlinelibrary.wiley.com/doi/10.1002/psp.648/abstract> last accessed 14/12/10
- Burns SM, Hough S, Boyd B et al., (2009) Sexual desire and depression following spinal cord injury: Masculine sexual prowess as a moderator. *Sex Roles* 61: 120-129
- Busuttill W (2010) Combat related stress. In Conrad D, White A, (Eds) *Promoting Men's Mental Health*. Oxford, Radcliffe Publishing
- Cambridge P, Mellan B (2000) Reconstructing the sexuality of men with learning disabilities: Empirical evidence and theoretical interpretations of need. *Disability & Society* 15:293-311
- Carballo M, Boup M (2005) International migration and health A paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration. Global Commission on International Migration
- Connell RW (2000) *The men and the boys*. Polity Press, Cambridge
- Council Directive (2010) European Commission available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:068:0013:0020:EN:P> DF last accessed 16/12/10
- Crisis (2004) *Hidden Homelessness: Britain's invisible city*: London: Crisis. Available at [http://www.crisis.org.uk/data/files/publications/HHBIC_report\[1\].pdf](http://www.crisis.org.uk/data/files/publications/HHBIC_report[1].pdf) last accessed 15/12/10
- EASHW (2005) *Noise in Figures*. European Agency for Safety and Health at Work, Luxembourg, Office for Official Publications of the European Communities
- Edgar B, Meert H (2006) *Fifth review of statistics on homelessness in Europe* European Federation of National Organisations working with the homeless. Belgium
- Elliott J, Hatton C, Emerson E (2003) The health of people with learning disabilities in the UK: evidence and implications for the NHS. *Journal of Integrated Care* 11: 9-17
- EC (2007) *Europe's demographic future: facts and figures on challenges and opportunities*. European Commission Directorate-General for Employment, Social Affairs and Equal Opportunities
- EU (2010) revised Framework Agreement on parental leave Council Directive 2010/18/EU
- Eurostat (2009a) *Youth in Europe: a statistical portrait*. Luxembourg: Publications Office of the European Union

- Eurostat (2009b) Reconciliation between work, private and family life in the European Union. Luxembourg: Publications Office of the European Union
- Eurostat (2010a) The Social Situation in the European Union 2009. Luxembourg: Publications Office of the European Union
- Eurostat (2010b) Combating poverty and social exclusion. Luxembourg: Publications Office of the European Union
- Flash Eurobarometer (2007) Young Europeans: survey among young people aged 15-30 in the European Union. Flash Eurobarometer (202) The Gallup Organisation
- Freund PES, McGuire M (1991) Health, Illness, and the Social Body. Prentice Hall.
- Frosh S, Phoenix A, Pattman R (2002) Young masculinities: understanding boys in contemporary society. Basingstoke, Palgrave
- Gatherer A, Møller L, Hayton P (2005) The World Health Organization European health in prisons project after 10 years: persistent barriers and achievements. *American Journal of Public Health* 95: 1696-700
- Geiger, B. (1996) *Fathers as Primary Caregivers*. New York: Greenwood Press
- Glaser K, Montserrat ER, Waginger U et al., (2010) Grandparenting in Europe. Institute of Gerontology, King's College London, Calouste Gulbenkian Foundation Beth Johnson Foundation
- Green Paper on an EU approach to managing economic migration (COM/2004/0811 final)
- Holter Ø (2003) Can men do it? Men and Gender Equality. The Nordic Council of Ministers,
- Hughes M (2010) *Social Trends No 40*. Office for National Statistics. Houndmills Basingstoke, Palgrave Macmillan
- Johnson S, Jones A, Rugg J (2008) *The Experiences of Homeless Ex-Service Personnel in London* Centre for Housing Policy. York, University of York
- Kraemer S (2000) The fragile male. *BMJ* 321: 1609-12
- Lund R, Evald Holstein B, Osler M (2004) Marital history from age 15 to 40 years and subsequent 10-year mortality: a longitudinal study of Danish males born in 1953. *Int. J. Epidemiology* 33 (2) 389-397
- Martins JO, Maisonneuve Cdl, Bjørnerud S (2006) Projecting OECD health and long-term care expenditures: What are the main drivers? Paris, OECD
- Madsen S Aa, Munck H (2001) Une étude au Danemark. La présence des pères à l'accouchement. *Santé Mentale au Quebec* XXVI (nr 1):27-38
- Madsen S Aa, Lind D, Munck H (2002) Fædres tilknytning til spædbørn [Fathers' Attachment with Infants] København, Hans Reitzels Forlag.

- Madsen S Aa (2009) Men's Mental Health: Fatherhood and Psychotherapy. *The Journal of Men's Studies* 17(1) (winter): 15-30
- Madsen S.Aa (2007) Men too are competent caregivers. *European Fatherhood*
Available at www.European-fatherhood.com last accessed 13/12/10
- Martikainen P, Martelin T, Nihtila E et al., (2005) Differences in mortality by marital status in Finland from 1976 to 2000: analyses of changes in marital-status distributions, socio-demographic and household composition, and cause of death. *Popul Stud (Camb)* 59(1):99-11
- Mathers CD, Stein C, Fat DM et al., (2002) Global burden of disease 2000: version 2 methods and results. Geneva: World Health Organization. Global Programme on Evidence for Health Policy Discussion Paper Number 50
- McCullough A (2010) Young runaways and adulthood: a difficult transition. *Housing Care and Support* 13(2):36-39
- Paul KI, Batinic B (2010) The need for work: Jahoda's latent functions of employment in a representative sample of the German population. *J Organiz Behav* 31:45-64
- Randall G, Brown S (1994) *Falling Out: A Research Study of Homeless Ex-Service People*. London, Crisis
- Seiffge-Krenke I (2010) Predicting the timing of leaving the marital home and related developmental tasks: parents' and children's perspectives. *J Soc & Person Relation* 27(4):495-518
- Senior J, Shaw J (2007) Prison healthcare. In Jewkes Y (Ed.) *Handbook on prisons*. Cullompton, Willan Publishing
- Social Exclusion Unit (1998) *Rough sleeping*. London, Social Exclusion Unit
- Social Exclusion Unit (2002) *Reducing re-offending by ex-prisoners*. London, Social Exclusion Unit
- Sparkes AC, Smith B (2002) Sport, spinal cord injury, embodied masculinities and the dilemmas of narrative identity. *Men and Masculinities* 4(3):258-285
- Stephens J (2002) *The mental health needs of homeless young people*. London, The Mental Health Foundation
- Walmsley R (2009) *World prison population list (8th edn)*. London, International Centre for Prison Studies
- Wilson B, Stuchbury R (2010) Do partnerships last? Comparing marriage and cohabitation using longitudinal census data. *Population Trends* 139(Spring):37-63
- WHO (2007) *Fatherhood and Health outcomes in Europe*. Copenhagen, WHO
- WHO (2008) *Background paper for Trenčín statement on prisons and mental health*. Copenhagen, WHO

- WHO (2010) Prisons and health. Available at <http://www.euro.who.int/en/what-we-do/health-topics/health-determinants/prisons-and-health>. Last accessed 7th November, 2010.
- Woodall J (2010a) Working with prisoners and young offenders. In Conrad D, White A (Eds.) Promoting Men's Mental Health. Oxford, Radcliffe Publishing
- Woodall J (2010b) Control and choice in three category-C English prisons: implications for the concept and practice of the health promoting prison. Unpublished PhD thesis. Leeds, Leeds Metropolitan University
- van Laere IR, de Wit MA, Klazinga NS, (2009) Pathways into Homelessness. Amsterdam, GGD Municipal Public Health Service
- Young H, Grundy E, O'Rielly, D et al., (2010) Self-rated health and mortality in the UK: results from the first comparative analysis of the England and Wales, Scotland and Northern Ireland Longitudinal Studies. Population Trends 139 (Spring): 11-36

1.4 Lifestyle & preventable risk factors

1.4.1 Main points

- Poor lifestyles and preventable risk factors are still some of the principal causes of premature death and morbidity in men, with over 50% of premature deaths being avoidable.
- There are strong links between the socioeconomic and educational background of men and their available health choices, which impact on their wellbeing.
- A gender element exists with regards to men's lifestyle choices, with social pressure increasing the likelihood of adopting risky behaviour.
- There has been a steady reduction in smoking across Europe – but the levels are still highest amongst men in lower socioeconomic groups and in the Eastern European country's.
- Alcohol consumption remains high in men, but differences are most noticeable for drunkenness and binge drinking.
- Illicit drug use varies across Europe, but men tend to have greater use of cannabis, ecstasy and steroids, with more drug related deaths in men.
- Though men have higher levels of activity than women generally, there are too few men taking sufficient exercise for health maintenance.
- Men tend to have less nutritiously balanced diets, with above the recommended levels of dietary cholesterol and saturated fatty acids and lower levels of polyunsaturated fat, carbohydrate, and fibre. Higher than advised salt and other mineral levels adds to the negative health consequences of men's diets.
- Obesity is increasing across Europe and the male form of overweight with central fat deposition increases the risk of many health problems [with links to cardio-vascular disease, cancer and diabetes].
- Men tend to accumulate fat at a faster rate than women, becoming more overweight at an earlier age.
- It is difficult to make international comparisons relating to Sexually Transmitted Infections.
- Programmes that target young men regarding screening for STI's are proving successful.
- Men tend to have a lower age of sexual initiation, have more partners, with condom use being greater in young men and those with higher levels of education.

1.4.2 Summary

The way men live their lives has a major effect on their overall health and well-being. From childhood onwards the lifestyles that many men develop are building up problems for their future, whether it's smoking, excess alcohol intake, illicit drug use, poor diet or limited physical activity the effect is seen in their high rates of premature death and chronic morbidity.

Young men feel they are living invulnerable lives, able to eat, drink and take risks without fear of the consequences; sometimes the reality is immediate, through the sudden death of alcoholic poisoning, or it may be cumulative effect as in the rising incidence of ischemic heart disease or cancer in their early adult years. The risks men face are not only the consequence of the life choices they take, there are anatomical and physiological, social and environmental, and service provision factors that can compound the problems. An instance of this relates to the health problems men have when they are overweight, which are a complex blend of the availability of the right food, a socialisation process of boys with regard to their body size and their diet, an increasing sedentary lifestyle coupled with the male form of obesity comprising central (or visceral) fat deposition increasing the risk of the metabolic syndrome and the fat related cancers. This is then linked to the tendency for weight-loss health promotion and services being focused onto women.

There is difficulty in agreeing the extent of sexually transmitted diseases, but it is apparent that the number of cases is increasing. However the targeting of men with regard to Chlamydia is showing that if the screening is done appropriately then men will engage. Getting men to use condoms is more effective in the young.

Understanding men's lifestyles is a significant factor in the development of health strategy aimed at supporting men to lead less damaging lives.

1.4.3 Introduction

The growth in recent years in the fields of preventative medicine and health promotion bears testimony to the critical role that lifestyle factors and health behaviours play in influencing health. Epidemiological studies implicate particular lifestyle patterns as a major factor in premature death rates (WHO, 2002), particularly among men (White & Homes, 2006). This has been confirmed by a growing shift in international health care policy towards the

importance of individual health behaviours, disease prevention and lifestyle in determining health outcomes (WHO, 2004). At both EU and individual member state level, policy statements clearly implicate cigarette smoking, excess alcohol consumption, physical inactivity and poor diet in the aetiology of many of the principal causes of mortality and morbidity, including cardiovascular and respiratory diseases, and some cancers. It is, however, crucially important to understand that lifestyles are not simply the product of individual choice. They are influenced by much broader economic, social, environmental and cultural factors (CSDH, 2008, Dowler, 2001). Across and within Member States that those who are in poorer material and social conditions eat less healthily, exercise less, consume more alcohol and are more likely to smoke or misuse drugs. In the context of addressing premature mortality rates among men, there is a growing awareness of the need to target lifestyle modification early in life among those men engaged in damaging health behaviours (White & Holmes, 2006).

1.4.4 Tobacco Smoking

Tobacco use is the major causes of preventable death. It has been estimated that 15% of all deaths in the European Union-including 25% of all cancer deaths - could be attributed to smoking (Directorate General for Health & Consumers, 2010). Every year, over half a million Europeans die prematurely because of tobacco use or exposure to environmental tobacco smoke. In addition to the loss of human life, smoking-related deaths and illnesses impose enormous economic burdens - over €100 billion per year.

The data presented in this report focus on tobacco smoking. However, it is important to note that many men use smokeless tobacco (e.g., snus, snuff). Although use of smokeless tobacco does not appear to increase the risk of respiratory diseases, it may increase the risk of some cancers - particularly oropharyngeal cancers (Lee & Hamling, 2009; Weitkunat et al., 2007).

Smokers have a significantly elevated risk of a range of cancers. The most obvious of these are cancers of the respiratory system, but there is also an increased risk of cancers of the stomach, pancreas, liver, renal system, and bladder. Smoking also increases the risk of a range of other illnesses, including chronic obstructive pulmonary disease (COPD), acute respiratory illnesses (including pneumonia). Smoking is also a major risk factor for coronary heart disease and cerebrovascular disease. Because men are more likely than women

to smoke on a daily basis, they are more likely to experience a range of smoking-related illnesses. For example, mortality rates for chronic obstructive pulmonary disease are two to three times higher for males than for females (European Respiratory Society, 2003). However, changes in smoking prevalence among men and women mean that in most European countries COPD mortality rates are decreasing among men but increasing among women. Similarly, mortality rates for cancers of the respiratory system are markedly higher among men, but rates are falling among men at the same time as they are rising in women.

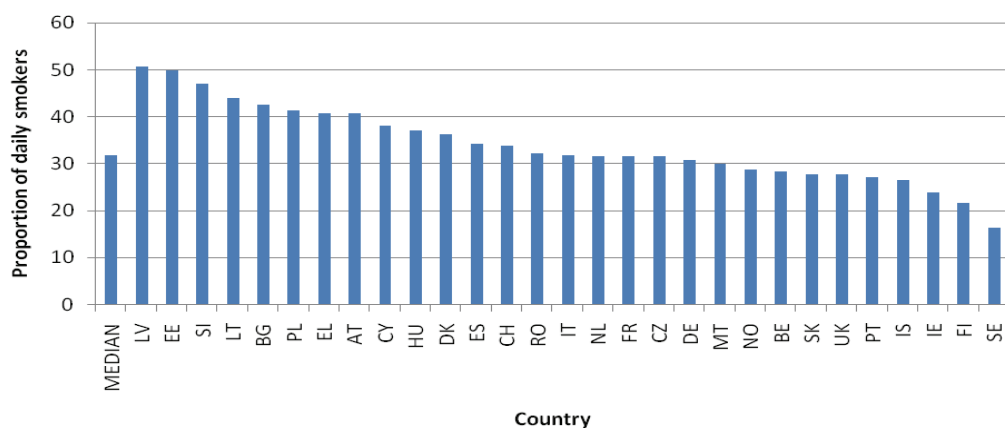
Across Europe, men are more likely than women to have ever smoked tobacco and to be current smokers (European Commission, 2009). One Eurobarometer survey of over 25,000 people in 28 countries revealed that 63% of men had smoked tobacco at some point in their lives, compared to 45% of women (European Commission, 2009). The same study revealed that men were considerably more likely to be smokers (32% vs 21%). However, some countries have seen a reduction in the sex gap in smoking over recent years due to decreases in the number of male smokers and increases in the number of female smokers (EUGLOREH, 2007). Indeed, in several countries girls are more likely than boys to smoke (Hibell et al., 2009, WHO, 2009b), and whereas trends in smoking prevalence among young men in Europe have been variable, there has been a clear trend for the increased prevalence of smoking among young women in nearly all European countries (Mladovsky et al., 2009).

Although men are more likely than women to smoke, it is important to acknowledge variability in smoking prevalence between men in different countries and among men within the same country. The proportion of men who smoke on a daily basis ranges from a low of 17% in Sweden to a high of 51% in Latvia (Fig 1.4.1). In some countries half of the male population smoke; in others only 1 in 6 men do so. Most men who smoke do so on a daily basis. When daily smokers and occasional smokers are combined, the proportion of men who smoke ranges from a low of 27% in Finland to a high of 56% in Latvia. In four countries - Slovenia (56 %), Lithuania (55%), Bulgaria (51%), and Estonia (51 %) the majority of men are smokers. In contrast, in no European countries do the majority of women smoke.

In all but one of these 29 countries for which valid data were available, men were more likely than women to be daily smokers. The average ratio of the

proportions of male and female daily smokers is 1.5:1. Although men are more likely than women to be smokers, there is wide variation in the ratio of male-to-female smokers, from 1:1 in Sweden to 4:1 in Portugal (i.e. 4 times more Portuguese men than women smoke). The data shown in the map 1.4.1 suggest a tendency for the sex ratio in smoking to be greater in countries in which smoking is more common among men. However, there are several clear deviations to this pattern - most notably Portugal, which has a relatively low level of smoking among men and the lowest levels of smoking among women.

Fig. 1.4.1 Proportion of daily smokers, by country, 2004



Source: Eurostat hlth_Is_smke

Daily smoking prevalence varies with education level (Fig. 1.4.2, Fig. 1.4.3). In nearly all countries, men with post-secondary education are least likely to smoke. In some countries smoking prevalence decreases with each increasing level of education, but in most countries this simple trend is not observed.

Other European data indicate that smoking is more common in lower socioeconomic groups (EUGLOREH, 2008; Idris et al., 2007). However there are not simple trends. One explanation for this variation is that patterns of smoking move through four stages, and that at each stage smoking is more prevalent in different segments of the population (Mackenbach & Kunst, 2004). The Central and Eastern European countries appear to be in the earlier stages, when smoking becomes common across all socioeconomic groups and smoking prevalence increases among women, but lags behind men (Map 1.4.1). Many countries in southern Europe appear to be in stage 3, a time in which smoking prevalence begins to decline in men (particularly higher SES men) and the peak in female smoking prevalence is reached. Many western and northern European

countries appear to be in stage 4, when smoking prevalence declines for both men and women, with higher prevalence found among people with lower SES.

Map 1.4.1 Male:Female ratio of proportion of daily smokers

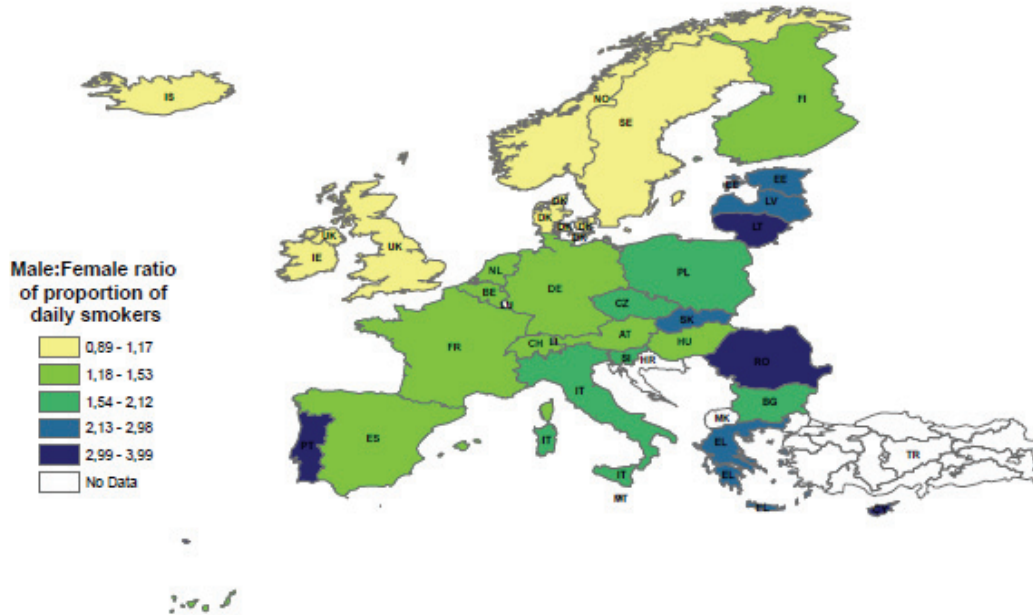
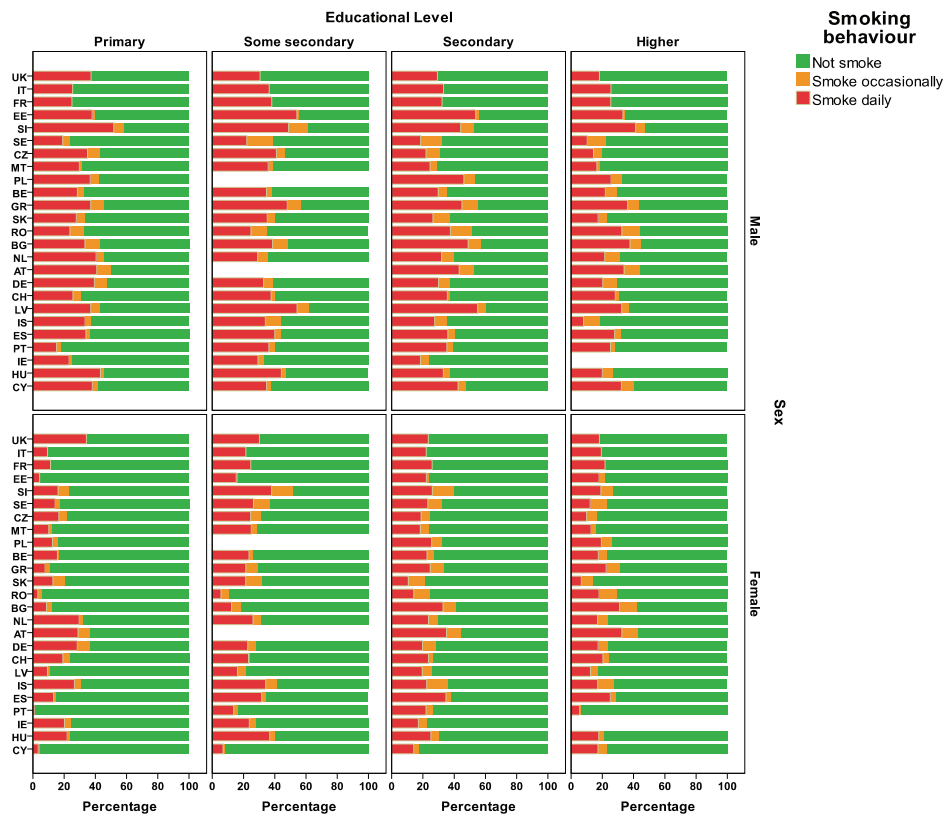


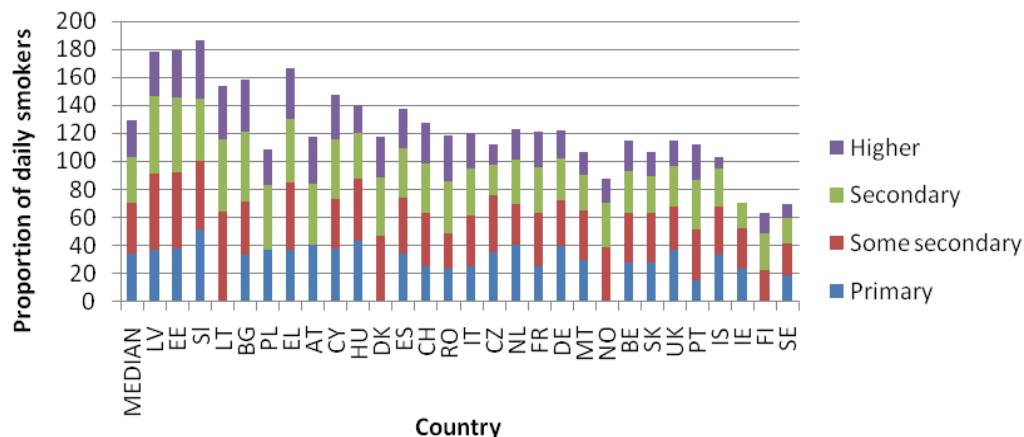
Fig. 1.4.2 Smoking behaviour, by educational group, sex and country, 2004



Source: Eurostat hlth_Is_smke

Among young people there is less clear evidence of sex differences. In the ESPAD survey of 35 countries, 29% of 16-year olds smoked cigarettes in the last 30 days (Hibell et al., 2009). In the majority of countries, girls were more likely to be smokers, but the sex differences are moderate in most. As observed among adults, there was wide variation in the prevalence of smoking among boys across Europe: the proportion of 16 year old male smokers ranged from 15% in Iceland to 44% in Latvia. Although there were no definitive patterns, rates of smoking among young men tended to be higher in central and eastern Europe, and lower in northern Europe. Other European surveys reveal that boys and young men perceive significantly less risk associated with smoking tobacco (European Commission, 2009-233).

Fig. 1.4.3 Proportion of daily smokers, male, by education level and country, 2004



Source: Eurostat hlth_Is_smke

In addition to being more likely to smoke, men - particularly manual workers - are more likely than women to be exposed to tobacco smoke at their place of work (ibid). Furthermore, there is wide variation between different countries within Europe in terms of the presence and comprehensiveness of restrictions on smoking in workplaces. Among people who work in enclosed workplaces, men are less likely than women to be employed in smoke-free workplaces (Ibid).

1.4.4.1 Action to reduce smoking

In order to reduce smoking and smoking-related illnesses, the European Community is active in developing a comprehensive tobacco control policy (Directorate General for Health & Consumers, 2009). This follows on from the WHO Framework Convention on Tobacco Control (WHO, 2003) which includes:

- legislation for tobacco control, including laws relating to sales to young people
- encouragement of - and legislation for - smoke-free environments
- health warnings and campaigns - such as warnings and graphic images on cigarette packets
- bans on tobacco marketing and advertising at the point of sale.

There is wide variation between European nations in terms of restrictions on smoking in enclosed public spaces. At one extreme, the United Kingdom and the Republic of Ireland have introduced total bans on smoking in enclosed public spaces. A number of countries - Finland, France, Italy, Latvia, Malta, the

Netherlands, Slovenia, Sweden, Romania - restrict smoking to separate designated smoking areas. However, in many of the countries a more relaxed approach to cigarette smoke is taken¹⁰.

1.4.5 Alcohol consumption

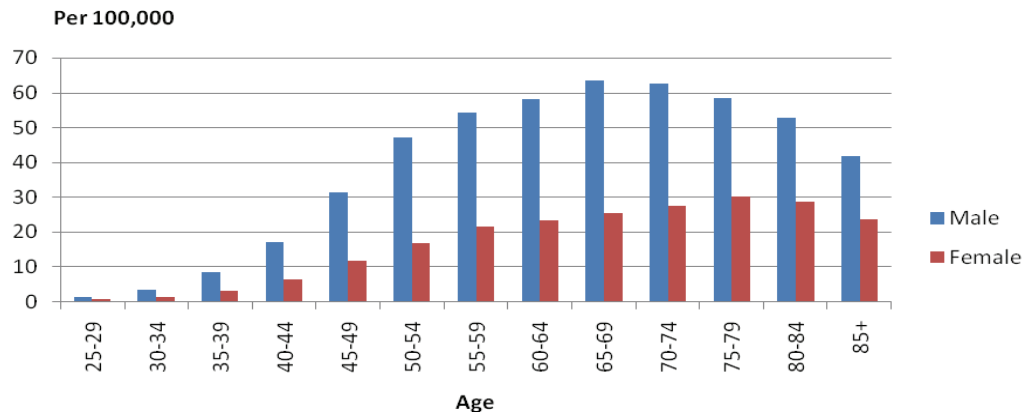
Alcohol related harm is a major public health concern in the EU accountable for over 7% of all ill health and early deaths¹¹. Excessive alcohol consumption is the third most important cause of morbidity and mortality in Europe (Mladovsky et al., 2009). Prolonged excessive alcohol consumption is related to an increased risk of liver cirrhosis, pancreatitis, and cancers of the gastrointestinal tract, liver, and breast. There is some evidence that moderate consumption confers health benefits in relation to stroke and coronary heart disease, but for other cardiovascular diseases there are more straightforward links between increased consumption and greater risk. Episodic heavy drinking increases the risk of accidental injury or death, and the risk of being the perpetrator or victim of violence. It is also often a contributing factor in antisocial behaviour. Excessive alcohol consumption may also lead to negative outcomes for relationships, family, friendships, employment, and finances.

Levels of per capita alcohol consumption in Europe are the highest in the world (Anderson & Baumberg, 2006). Although there is evidence from some areas of Europe that sex differences in alcohol consumption are decreasing, it is still the case that men are more likely than women to drink and to drink in ways that increase the risk of harm. Men are more likely than women to be dependent on alcohol, and alcohol related injury and mortality rates are significantly greater among men than women (Anderson & Baumberg, 2006). Across Europe deaths due to chronic liver disease are more common among men than women: in 23 out of 31 countries the male death rate is at least double that for women (Fig. 1.4.4 & Fig. 1.4.5).

¹⁰ Smoking legislation: http://ec.europa.eu/health/tobacco/help/index_en.htm - accessed 10/11/2010

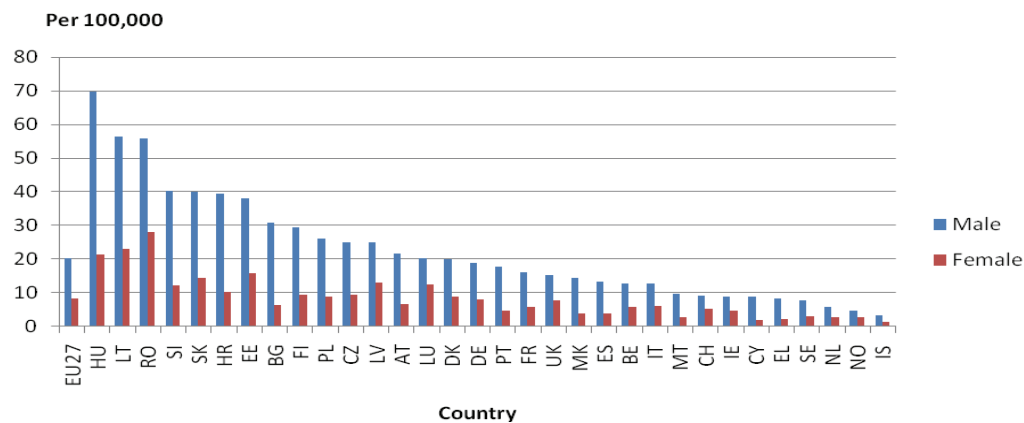
¹¹ http://ec.europa.eu/health/alcohol/policy/index_en.htm accessed 10/11/10

Fig. 1.4.4 Age specific death rates for chronic liver disease by sex, EU27, 2007



Source: Eurostat hlth_cd_acdr

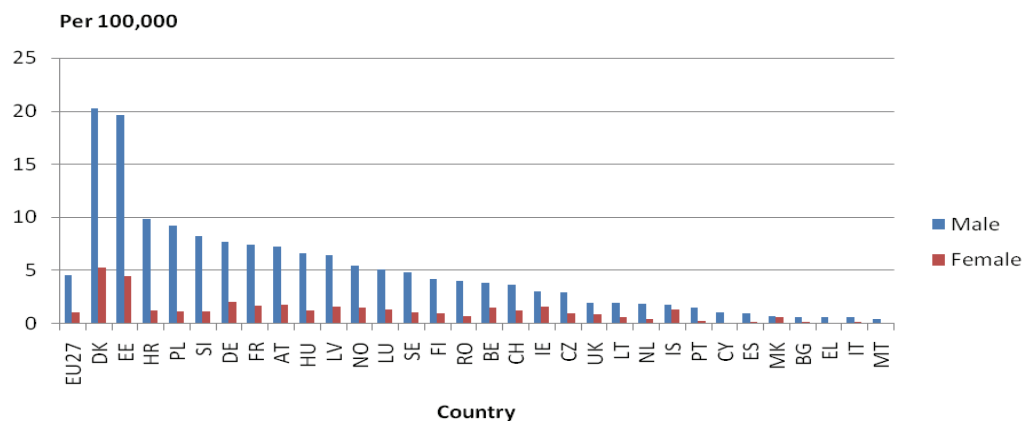
Fig. 1.4.5 Age standardised death rates for Chronic liver disease, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK, (2007). DK, LU, PT (2006). BE (2004)

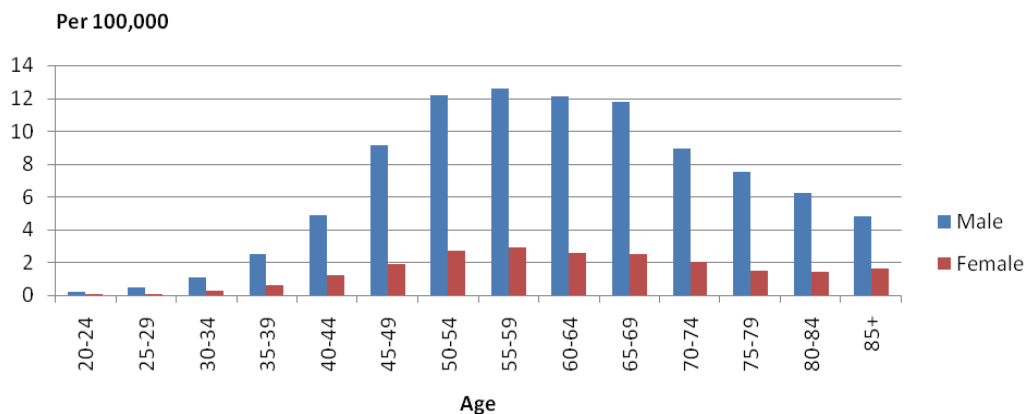
In addition deaths due to mental and behavioural disorders arising from alcohol use are more common among men than women: in 30 out of 31 countries the male death rate is at least double that for women (Fig. 1.4.6 & Fig. 1.4.7).

Fig. 1.4.6 Age standardised death rates for Mental and behavioural disorders due to use of alcohol, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK, (2007). DK, LU, PT (2006). BE (2004).

Fig. 1.4.7 Age specific death rates for Mental and behavioural disorders due to use of alcohol, by sex, EU27, 2007



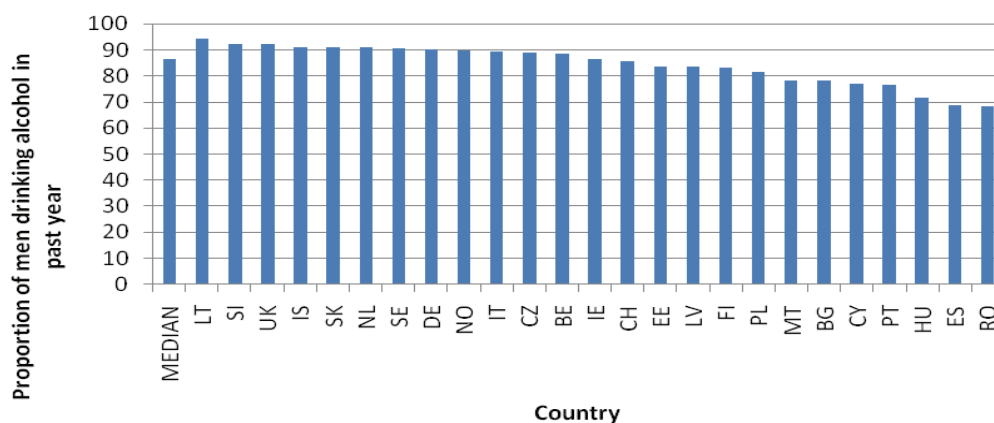
Source: Eurostat hlth_cd_acdr

A Eurobarometer survey of alcohol-related beliefs and behaviour among over 28,000 people in 29 European countries revealed that men are more likely than women to drink alcohol: in the last year 84% of men and 68% of women drank alcohol (Directorate General for Health & Consumers, 2007). The male: female ratios for alcohol consumption tend to be even greater in relation to patterns of heavier alcohol use. The proportion of men who drink on daily basis was 18% compared to 9% among women, and the proportion of men who usually drink 5 or more alcoholic drinks on a drinking day was 13% compared to 7% among women.

Although it is possible to say that men are more likely than women to drink and to drink excessively, it is also important to note that there are big differences in drinking habits between countries. Some of these reflect cross-European variation in drinking cultures, for example, the proportion of alcohol consumed as beer, wine, or spirits differs as does patterns of alcohol consumption with and without meals (Anderson & Baumberg, 2006).

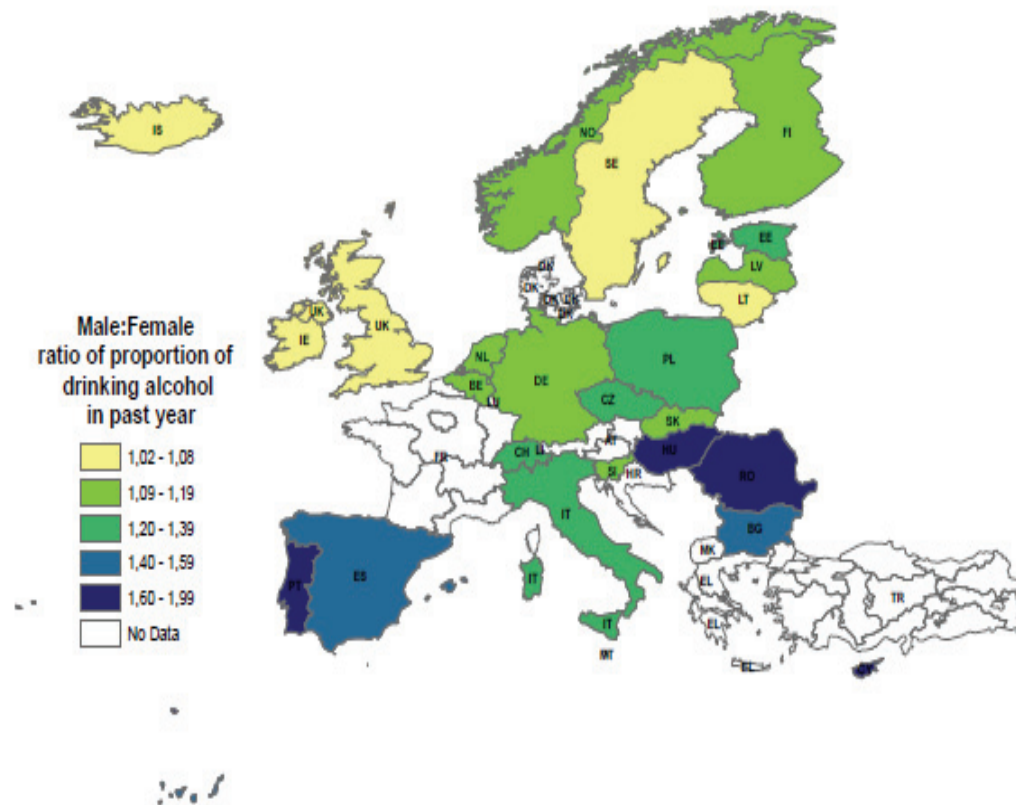
The proportion of men who have drunk alcohol in the last 12 months ranges from a low of 68% in Romania to a high of 94% in Lithuania (Fig 1.4.8). Furthermore, the male to female ratio of drinkers ranges from just over 1 to nearly 2. In countries with high prevalence the male to female ratio is practically constant and close to 1:1, increasing as the prevalence decreases (Map. 1.4.2).

Fig. 1.4.8 Proportion of men drinking alcohol in past year, 2004



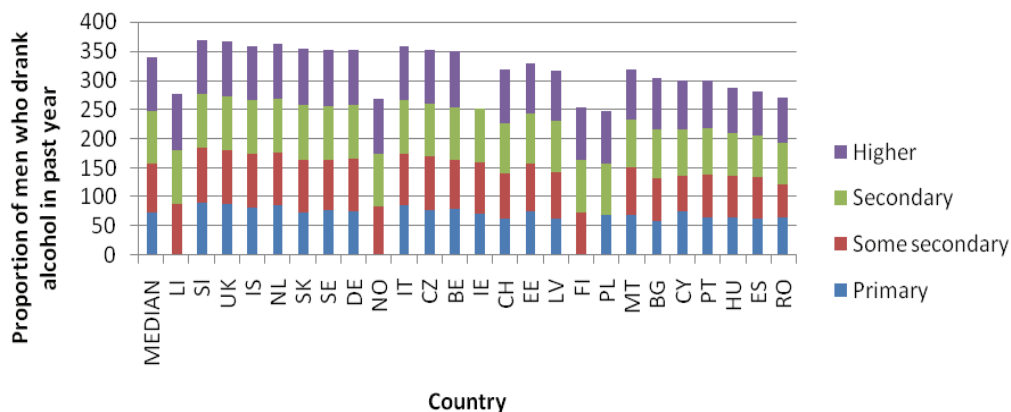
Source: Eurostat hlth_Is_dk12me

Map 1.4.2 Male: female ratio of proportion of drinking alcohol in past year



Further analysis revealed that across Europe, the proportion of drinkers increases with increasing education (Fig. 1.4.9). This pattern is found for all men in Europe, and is also observed within different age bands and across countries. In all 25 countries with valid data, men in the lowest education category were the least likely to drink, and in 20 of these countries, there were stepwise increases in alcohol consumption across the four education categories.

Fig. 1.4.9 Proportion of men who drank alcohol in past year, by country, all ages, 2004



Source: Eurostat hlth_Is_dk12me

Among men, alcohol consumption also varies according to age. The 2007 ESPAD survey of over 100,000 16-year olds revealed lower levels of alcohol use than among adults, but did also find clear sex differences for most measures for alcohol use, particularly excessive and unhealthy levels of consumption. In all countries, the majority of 16 year old boys had consumed alcohol in the last year (ranging from a low of 52% in Iceland to a high of 96% in Denmark). The graph below shows that the proportion of boys who had consumed alcohol in the last 30 days ranged from 28% in Iceland to 82% in Denmark. In most countries there were not large sex differences in terms of whether young people had consumed any alcohol.

However, data on volume of consumption revealed clearer and stronger sex differences. The data included in the graph below indicate that in 27 of the 31 countries with valid data, boys were more likely than girls to have drunk 5 or more drinks on at least one occasion in the last month. However, within young men there was wide variation from 20% in Iceland to 63% in Denmark.

In 30 countries with valid data, boys were more likely than girls to have been drunk in the last year. Within young men there was great international variation, from a low of 13% to a high of 75%. Excessive alcohol consumption among young men is worrying in its own right, but also because heavier drinking in adolescence predicts more problematic alcohol use in later life (Jefferis et al., 2005; Merline et al., 2004).

Thus, although men are more likely to drink than women, it is important to note that within men there is variation in alcohol consumption between countries and that within countries alcohol consumption among men varies according to demographic characteristics including age, education, and socioeconomic status. Drinking patterns also reflect different attitudes toward alcohol. For example, a survey of over 12,000 people in the 27 European Union Member States revealed that boys and young men perceived there to be significantly less risk associated with alcohol use (European Commission, 2008-233).

1.4.6 Illicit drug use

Certain drugs are controlled and their use is illegal because of known short or long-term harms associated with their use. Potential short-term harms include the risk of a fatal overdose, and increased rates of accidents and injuries. Potential long-term risks include psychiatric morbidity, an increased risk of suicide, and social effects related to employment. In the case of injecting drug use, there is also an increased risk of infection with HIV, Hepatitis C, and other communicable diseases.

In the section on alcohol use, it was found that sex differences were greater for patterns of use that were less common - so sex differences for drunkenness or "binge drinking" are larger than sex differences for any alcohol consumption. Similarly, it is perhaps not surprising that even larger sex differences are found for illicit drug use (EMCDDA, 2006, 2009). However, the data indicate that sex differences may be decreasing over time, and that sex differences are less marked among younger people (ibid). Parity of drug use in men and women is only found in young people, and only in some countries: in general drug use is considerably more common among men than women.

However, it is important to note that male to female use ratios vary for different drugs and that across Europe, there is wide variation in men's patterns of illicit drug use. The Annual Report of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2009) contains some descriptive information about sex differences in drug use, but not detailed statistical information. An appendix to the 2006 Annual Report (EMCDDA, 2006) provides more detailed information which is summarised below.

Men are more likely than women to have ever used cannabis and to have used cannabis within the last year (ibid). In no country were women more likely to

have ever used cannabis, and in only one country (Ireland) were women more likely to have used cannabis in the last year. Although overall men were more likely to have used cannabis, there was wide variation in the sex ratios. In relation to lifetime use, the male to female ratios range from a low of 1.3 in Finland to a high of 4.0 in Estonia. In relation to use in the last year, the male to female ratios range from a low of 1.5 in Finland to a high of 4.3 in Hungary. The data indicate that sex differences in cannabis use are larger for countries in which cannabis use is less common among men.

While these sex differences are striking, it is also important to acknowledge large differences in cannabis use between men in different countries. For example, the proportion of men using cannabis in the last months ranged from 1.1% to 18.1% (ibid).

In 18 of the 19 countries with comparable data Men are also more likely than women to have ever used ecstasy, the exception being Latvia where equal proportions of men and women had used this drug (ibid). Among young people, there is less clear evidence that boys are more likely than girls to have ever used ecstasy: of the 19 countries with comparable data, 9 show that more boys take this drug, 4 show that more girls do, and 6 show no sex difference. The data indicate that sex differences in ecstasy tend to be greater for countries in which ecstasy use is less common among men.

Research also reveals large sex differences in use of cocaine at any time. In all 21 countries with comparable data, men are more likely to have used cocaine, and in 9 of these countries, the male to female ratio is at least 2:1. However, there is also wide variation between men in different countries, ranging from less than 2% of men in Lithuania, Greece, Poland and Slovakia to 13% in Spain and 14% in the UK.

Unfortunately the EMCDDA data from general population surveys do not provide sex-specific data for use of amphetamines, tranquilisers, sedatives, or anabolic steroids. However, more information on sex differences is available from surveys of young people.

The 2007 ESPAD survey of over 100,000 16-year olds in 35 European countries revealed that boys are more likely than their female peers to have used illicit drugs (Hibell et al., 2009). However, it is important to note that there was very

large international variation in the proportion of boys who had ever used illicit drugs - from a low of 7% in Romania, Norway, and the Faroe Islands to a high of 48% in the Czech Republic. The male to female ratio was not strongly related to overall prevalence of drug use. Of particular interest to this study of men's health is the use of anabolic steroids, which are used to enhance muscle growth via physical training. Across the ESPAD sample boys were approximately twice as likely as girls to have used steroids (ibid). However, the proportion of young men who had used anabolic steroids ranged from 1% or less in 9 countries to 7% of boys in the Czech Republic. A clear exception to the general finding of higher levels of drug use among boys was the finding that girls were markedly more likely than boys to have used tranquilisers or sedatives without a prescription. There is little evidence that sex differences were affected by the prevalence of such drug use - in other words, the sex ratio was large regardless of how common use of tranquilisers/sedative was among girls.

Reasons for the observed sex differences in drug use are many and varied, and the likelihood of finding simple explanations is influenced by the findings of wide variation in patterns of drug use among men and women in different European countries. In many countries the proportion of women reporting illicit drug use is markedly higher than the proportion of men doing so in other countries: for example, although young men in the UK are approximately twice as likely as young women in the UK to have used cocaine, young women in the UK are twice as likely to have used cocaine as young men in 10 of the other 19 countries for which data are available.

Sex differences in patterns of illicit drug use correspond to sex differences in attitudes and beliefs about drugs. A Eurobarometer survey of over 12,000 people aged 15-24 years in the 27 European Union Member States revealed that although there were no sex differences in the perceived health risks of heroin and cocaine - the two drugs with the highest risk ratings - boys and young men perceived significantly less risk associated with use of ecstasy and cannabis (European Commission, 2008-233). Similarly, within the ESPAD sample, boys tended to perceive fewer risks from use of illicit drugs (Hibell et al., 2009).

A Eurobarometer survey of adolescents and young adults revealed wide variation between countries in terms of perceived access to illicit drugs (European Commission, 2008-233). Overall, there were no sex differences in

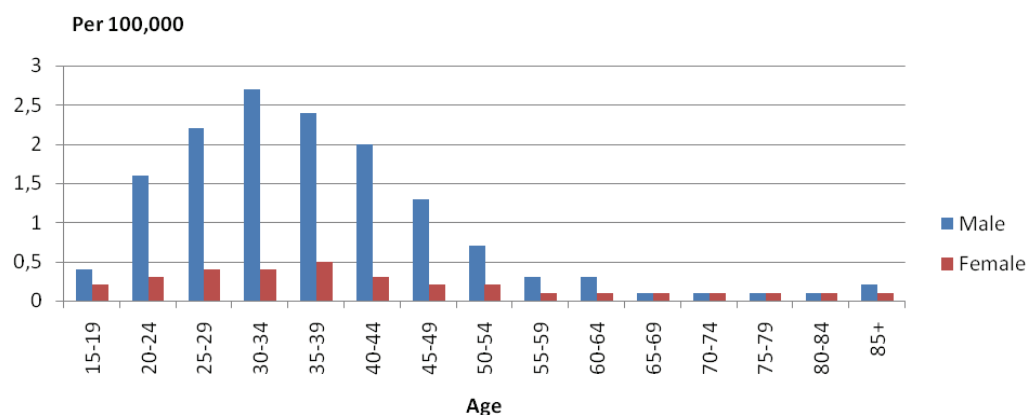
perceived ease of access to heroin or cocaine, but men reported a greater ease of access to ecstasy or cannabis. Men were also more likely than women to cite legalisation as the most effective way to deal with drug problems. Perceptions of harm help to explain differences in patterns of drug use, but these are also likely to be shaped by local and national variation in the legality, availability, and costs of various drugs (European Commission, 2008).

The ESPAD survey revealed significant associations between drug use and markers of psychological well being. The likelihood of smoking, drinking, getting drunk, and using a range of illicit drugs was associated with more depressive symptoms, more antisocial behaviour, more anomie, and lower self-esteem. Furthermore, individuals who exceeded cut-offs on more of these 4 psychological factors were more likely to smoke, drink excessively, or use illicit drugs - that is people who were depressed or had low self-esteem were less likely to use drugs than were people who were depressed and had low self-esteem. This indicates that in addition to being a concern in its own right (Mental Health Section 2.6), psychological wellbeing is an important influence on patterns of drug use linked to adverse health outcomes.

1.4.7 Drug-related harm

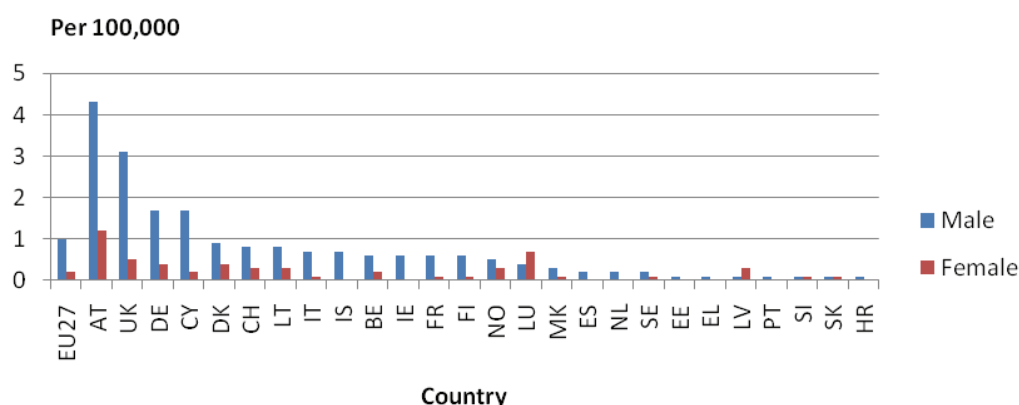
Reflecting the fact that men are more likely than women to use illicit drugs, there are clear sex differences in negative outcomes associated with illicit drug use (EMCDDA, 2009). For example 82% of heroin overdose deaths occur in men, with men in their 30s most likely to die from heroin overdoses. In all European countries, drug-induced mortality rates are higher among younger people (15-39) than in the rest of the population (EMCDDA, 2009). Furthermore, among younger people, drug-induced mortality rates and the proportion of all deaths attributable to drug use are greater among men (Fig. 1.4.10, Fig. 1.4.11). However, among young men there is enormous variation between countries in terms of absolute mortality rates and the proportion of all deaths due to drug use. These differences are likely to be a reflection of international variation in patterns of use of illicit drugs noted above.

Fig. 1.4.10 Age specific death rates for Drug dependence, toxicomania, by sex, EU27, 2007



Eurostat: hlth_cd_acdr

Fig. 1.4.11 Age standardised death rates for Drug dependence, toxicomania, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except: CH, CY, EU27, FR, IE, IS, IT, SE, SI, UK (2007). DK, LU, LV, PT (2006). EE, MK (2005). BE, SK (2004)

To address drug-related harm, the European Drugs Strategy for 2005-2012 (General Secretariat, Council of the European Union, 2004) places an important emphasis on reducing demand for illicit drugs via a multi-faceted approach directed toward: discouraging people from starting to use drugs; preventing experimental drug use from becoming regular use; implementing early intervention for potentially risky patterns of drug use; providing treatment and rehabilitation programs. It is therefore important to focus on sex differences in the use of such services. The results of some studies indicate a need for gender-sensitive approaches in interventions designed to prevent or change drug use. For example, Schinke (1994) found that interventions are more

effective for young men if they focus on improving social skills such as assertiveness. However, more recent reviews of the literature reveal inconsistent support for the differential efficacy of different kinds of brief interventions for men and women (Kaner et al., 2007).

The finding that men greatly outnumber women among users of drug treatment services may appear to counter the more common finding of the under-use of health services by men [see section 1.5] (EMCDDA, 2006). However, this sex difference in treatment use is a reflection of the observed sex differences in illicit drugs; substantially fewer women have a need for such services. Furthermore, it is difficult to determine whether there are sex differences in delays to use, or non-use of such services. Some data suggests that men may be less likely than women to seek treatment services: for example, women tend to be younger than men when they first seek treatment for drug use. Further evidence that male drug users may be less likely than female drugs users to seek treatment comes from the observation that most drug-related deaths occur in men.

1.4.8 Physical Activity

There is a long established positive relationship between physical activity¹² and health. After adjustment for confounding factors, evidence shows that physical activity prevents or ameliorates a range of chronic diseases, including cardiovascular disease, type 2 diabetes, some cancers and obesity. It has a positive effect on musculoskeletal health and psychological wellbeing (Bauman et al., 2009; Haskell, 2007). Physical activity also acts to modify other risk factors such as hypertension, total cholesterol and high-density lipoproteins (Stephenson et al., 2000) and is associated with other types of positive health behaviours such as healthy diet and non-smoking (WHO, 2009 European Health Report). Numerous epidemiological studies have reported a close relationship between physical activity and health. Growing health benefits are associated with increasing levels of physical activity, whilst, conversely, those who are least active have poorer health outcomes (Berlin & Colditz, 1990). Physical activity is known to confer a protective benefit even when adopted in middle or later life (Lee & Paffenbarger, 1997).

¹² Physical activity may consist of planned and structured movements or competitive sports, but also more routine activity associated with household tasks, work, leisure and commuting (World Health Organisation, 2009)

Physical inactivity, on the other hand, is recognised as a major independent risk factor for chronic non-communicable diseases, accounting for 3.5% of the disease burden and up to 10% of deaths in the European Region (WHO, 2006). In the 21st century, there are fewer opportunities for physical activity in everyday life, with the result that sedentary lifestyles have increased: approximately two-thirds of the adult population in the European Union do not reach recommended levels of activity. This has been paralleled by a fivefold increase in obesity between the beginning and end of the last century. A number of cost analyses studies have shown that physical inactivity is associated with significant economic costs. In England, for example, the annual costs of inactivity – including costs associated with health care, absence from work, and loss of income due to premature death - have been estimated to be €3-12 billion (WHO, 2006). This corresponds to a cost of €150-300 per citizen per year. An Australian report estimated the cost of inactivity to the Australian economy to be \$13.8 billion per year (Medibank, 2008). Conversely, economic studies indicate that physical activity is associated with, for example, improved productivity and reduced absenteeism (Shephard, 1996), improved capacity for independent living amongst older people (Canadian Fitness and Lifestyle Research Institute, 1996) and healthy ageing (Nusselder et al., 2008).

1.4.8.1 Determinants of physical activity

The principal determinants of physical activity include demographic factors (e.g. age, education, socioeconomic status), psychological factors (e.g. perceived competence, enjoyment, lack of awareness), social factors (e.g. encouragement from family or peers) and the physical environment (e.g. availability of opportunities to be active (WHO, 2006a). The quality and comparability of physical activity data is influenced by a number of factors, including; definition of physical activity, comparability of data sources, reliable trend data, lack of information on different settings where physical activity takes place and availability of data from accession countries (WHO, 2009; European Health Report, 2008). There has been very limited monitoring or surveillance of physical activity within the EU to date, with data from the accession countries being particularly sparse. Whilst international comparisons of key non-communicable disease (NCD) risk factors, such as obesity and tobacco use, are readily available, there is a dearth of physical activity data due to the lack of standardised and validated instruments (Bauman et al., 2009), which is only

recently beginning to be addressed¹³. The standardisation of physical activity data collection can make a very positive contribution to the gathering of quality and comparable data on physical activity across the EU in the years ahead.

In accordance with WHO guidelines, the EU recommends a minimum of 60 minutes of daily moderate-intensity physical activity for children and young people and a minimum of 30 minutes of daily moderate-intensity physical activity for adults (EU Working Group "Sport & Health", 2008). Evidence points towards an integrated multi-sectoral strategy with appropriate surveillance and monitoring systems, as being the most effective approach to promoting increased physical activity participation levels at a population level (Stephenson et al., 2000; EU Working Group "Sport & Health", 2008). However, in a review of physical activity policy within individual countries across Europe, Daugbjerg et al., (2009) reported limited evidence of intersectoral collaboration, a failure to target specific population groups most in need (e.g. the most sedentary and those economically disadvantaged), a lack of specific and measurable targets, and inadequate monitoring and surveillance within many policies.

1.4.8.2 Physical activity patterns of men in the EU

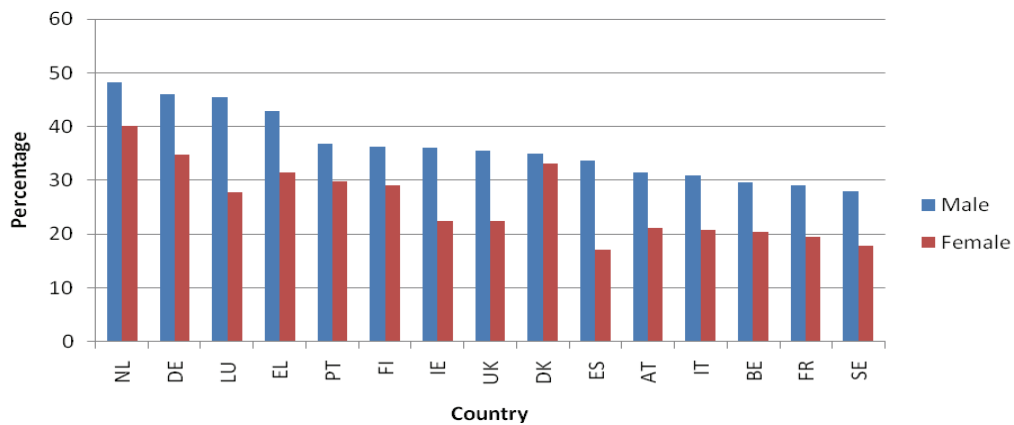
The first study to estimate the prevalence of physical activity during leisure time in adults from 15 Member States of the EU used the Paffenbarger physical activity questionnaire (Martinez-Gonzalez et al., 2001). The study showed a steep north-south gradient in leisure-time activity, with Sweden, Austria, Finland and the Netherlands as the most active countries and Greece, Italy Spain and Belgium and Portugal as the least active countries. A significantly higher percentage of men engaged in leisure-time physical activity (76%) compared with women (71%). Multivariate analysis also showed a significant trend to higher leisure time physical activity in participants with higher educational levels and in non-smokers. An inverse association was also reported between body mass index and leisure time physical activity.

The Eurobarometer (2003) report used the International Physical Activity Questionnaire (IPAQ) to assess the frequency, duration and level of intensity of physical activity in the last 7 days among 15 Member States of the EU. The findings from this study are not consistent with the patterns reported in the

¹³ 'ALPHA' (Assessing Levels of Physical Activity and fitness at population level <http://sites.google.com/site/alphaprojectphysicalactivity/Home>

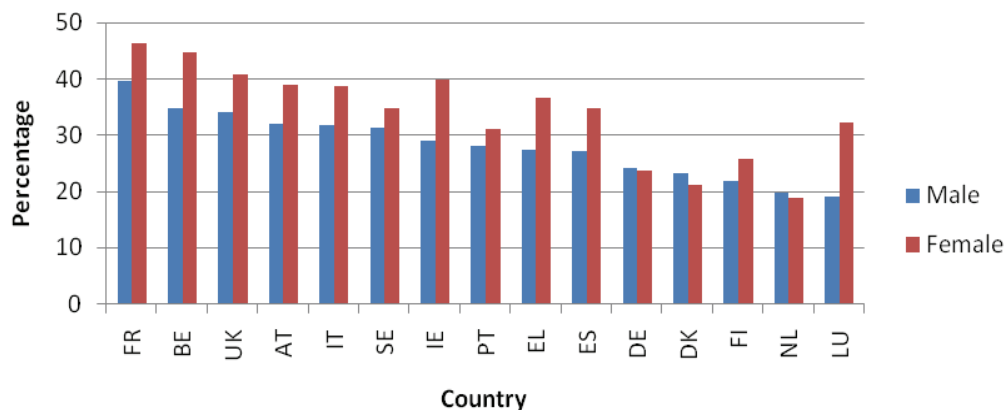
earlier study, which can be explained by the differences in the activity constructs used rather than true differences in prevalence (Bauman et al., 2009). Overall, the Eurobarometer study findings suggest that two-thirds of the adult population of the European countries surveyed are insufficiently active for optimal health benefits. Men were found to be 1.6 times more likely than women to be sufficiently active (Fig. 1.4.12), less likely to be sedentary (Fig. 1.4.13) and slightly more likely to sit for at least 6 hours daily (Fig. 1.4.14). There were no gender differences in regular walking (at least 5 days x 30 minutes per week) (Fig. 1.4.15).

Fig. 1.4.12 Prevalence of sufficient total activity in EU15 by sex and country



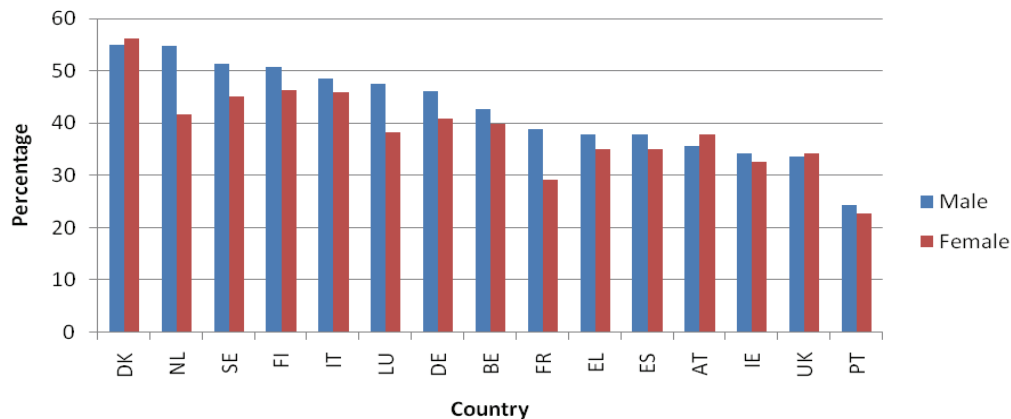
Source: Sjostrom et al., (2006)

Fig. 1.4.13 Prevalence of sedentariness, EU15 by sex and country



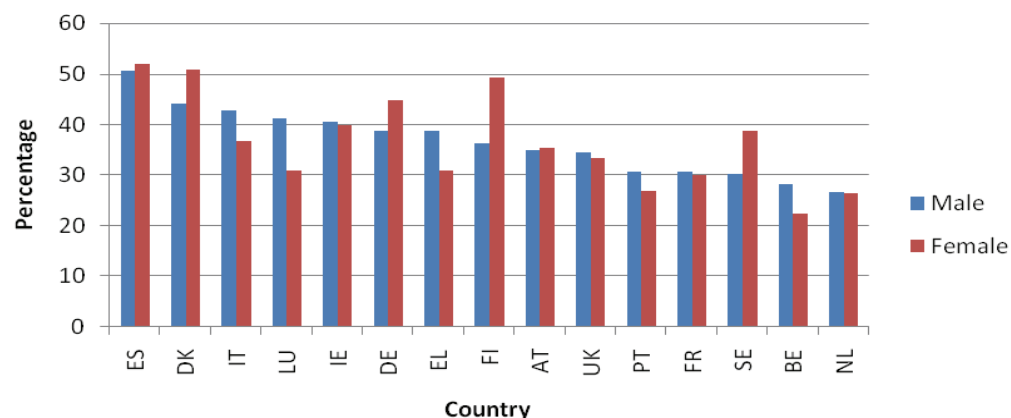
Source: Sjostrom et al., (2006)

Fig. 1.4.14 Prevalence of sitting 6 hours per day, EU15 by sex and country



Source: Sjostrom et al., (2006)

Fig. 1.4.15 Prevalence of walking 5x30 mins per week, EU15 by sex and country



Source: Sjostrom et al., (2006)

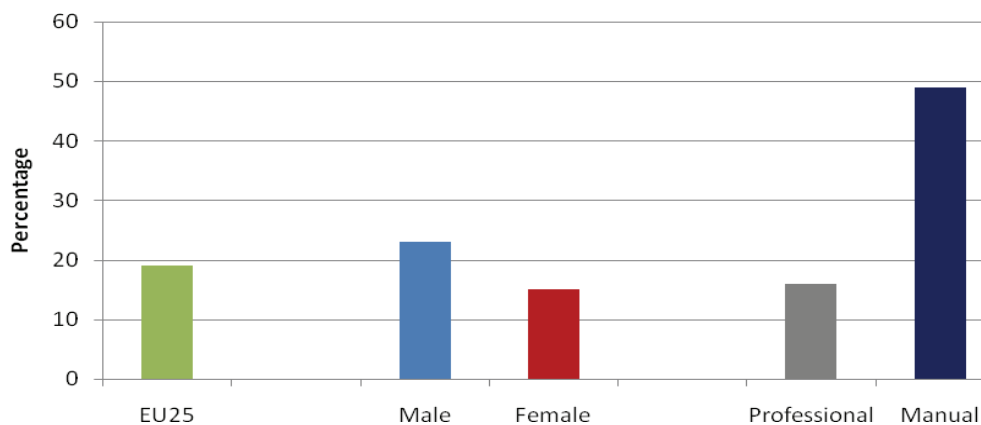
Notwithstanding the higher prevalence of physical activity among men, it is important, from a men's health perspective, to interpret such findings in the overall context of a majority of European men being insufficiently active for health. In particular, it appears that total physical activity in most countries remains insufficient to ensure energy balance and prevent obesity or that the ratio of energy expenditure to dietary intake is unbalanced to maintain weight stability (Bauman et al., 2009). These findings point to a level of urgency for increased physical activity promotional measures.

The variability in physical activity patterns in the 2003 Eurobarometer study, both between men in different countries and among men within the same

country, should also be acknowledged. The prevalence of health enhancing physical activity among men ranged from 28% in Sweden to 48% in the Netherlands, whilst more than twice as many men were sedentary in France as compared to Luxembourg (40% v 19 %). The prevalence of sitting for 6 hours or more per day was 55% among men in Denmark compared to just 24.% among men in Portugal, whilst regular walking was most prevalent among men in Spain (51%) and least prevalent among men in the Netherlands (27%). The likelihood of being sufficiently active decreased and the likelihood of being sedentary increased with increasing age. A more recent study focusing on physical activity prevalence in 20 countries (including 7 countries from the EU), reported that age-related declines in physical activity were much more frequently observed among men than among women (Bauman et al., 2009). In the 2003 Eurobarometer study, increasing educational level was associated with less sedentariness but at the same time with more sitting time – reflecting more sedentary occupations among those with higher levels of education.

In a later Eurobarometer (2006) study, less than one quarter (23%) of men in the EU25¹⁴ reported getting ‘a lot’ of physical activity at work (15% for women), with manual workers being three times more likely than professional workers (49% v 16%) to report in this way (Fig. 1.4.16).

Fig. 1.4.16 Physical activity in the last 7 days at work – (A lot)

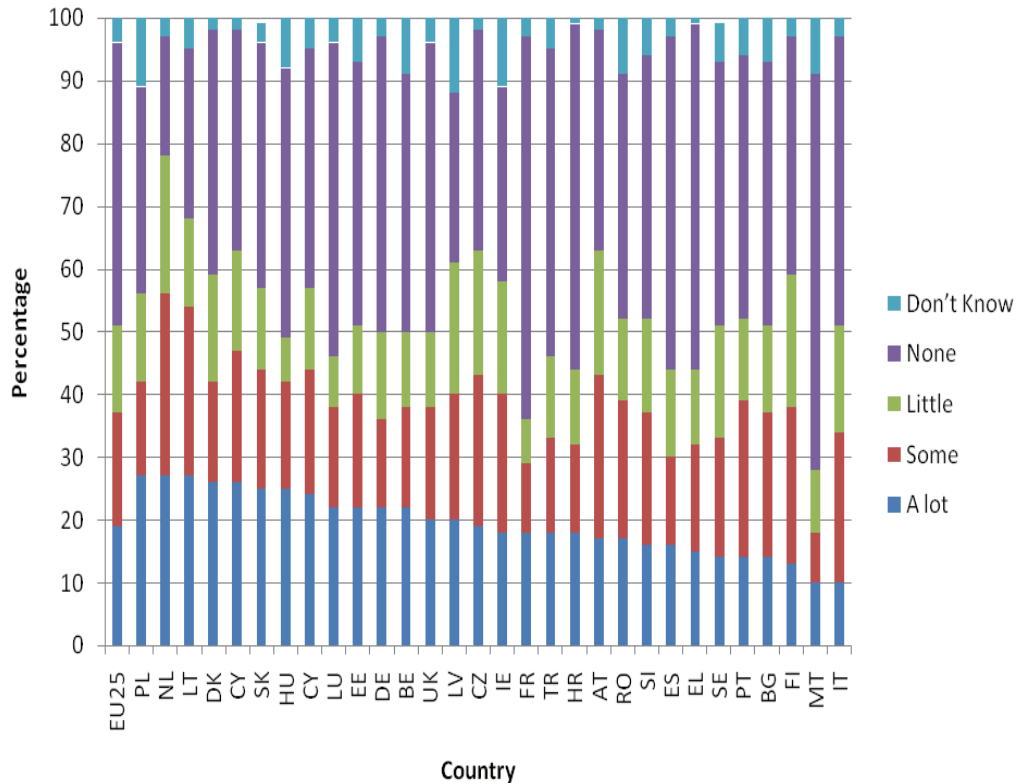


Source: Eurobarometer 2006

¹⁴ This is the first EU study on physical activity/sport to include data from the 12 new Member States

There were also large variations across countries (see Fig. 1.4.17), with Malta standing out with 63% of their male population reporting that they had no physical exercise in the previous 7 days.

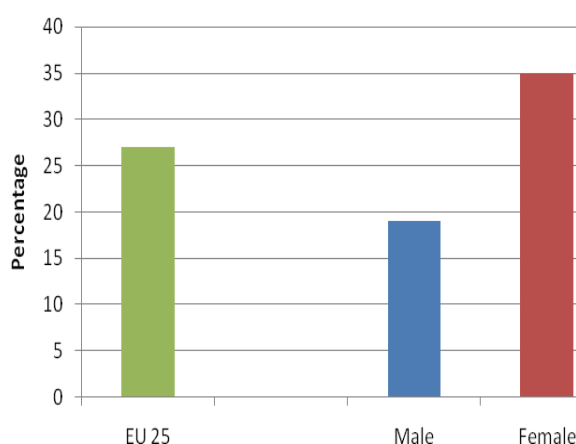
Fig. 1.4.17 In the last 7 days how much physical activity did you get at work, by country, male



Source: Eurobarometer 2006

Similar low levels of habitual physical activity (22% reporting 'a lot' of physical activity moving from place to place) and household physical activity (19% reporting 'a lot' of housework, gardening and general maintenance work) were reported by men in the EU in the same study (with corresponding figures being 22% and 35% respectively for women; see Fig. 1.4.18). The continuing shift towards sedentary occupations and more sedentary lifestyles generally for men has been paralleled by a fivefold increase in obesity between the beginning and end of the last century (Helmchein, 2001).

Fig. 1.4.18 Physical activity in and around house (A lot), by sex, EU25

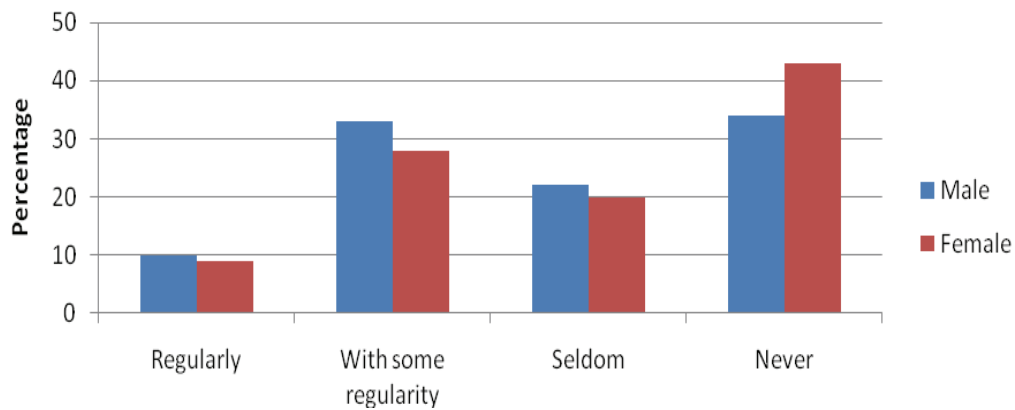


Source: Eurobarometer 2006

In a more in-depth analysis of the 2003 Eurobarometer data, those countries with the best infrastructure for active commuting as part of active lifestyles (the Netherlands, Denmark and Germany) were found to be the most active, pointing towards the role of getting the right environment on physical activity levels (Sjostrom et al., 2006). Bauman et al., (2009) also reported that the most physically active countries in their study had better developed facilities for recreational activity and a history of long-term promotion of exercise. The same study found that different patterns of physical activity were associated with high overall prevalence estimates, leading the authors to conclude that physical activity promotion strategies should be tailored to local infrastructure, available programmes and culture.

A more recent study (Eurobarometer, 2010) focused on assessing levels of physical activity and sport in the EU, with a particular emphasis on the context in which people exercise. Whilst men in the EU were found to exercise or play sports more than women, nevertheless, 56% of men in the EU were found not to engage in exercise/sport weekly (i.e. Seldom/Never) (Fig. 1.4.19).

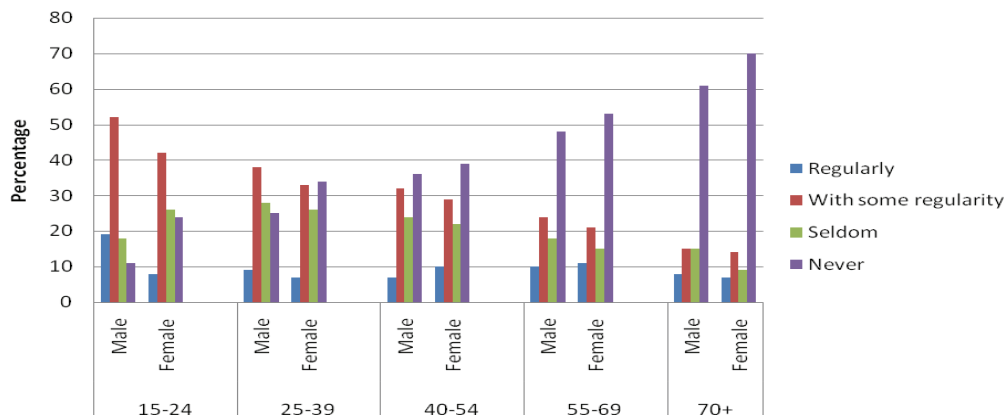
Fig. 1.4.19 How often do you exercise or play sport by sex, EU27, 2010



Source: Eurobarometer 2010

Disparities between males and females were particularly marked in the 15-24 age group (Fig. 1.4.20).

Fig. 1.4.20 How often do you exercise or play sport, by sex and age, EU27, 2010



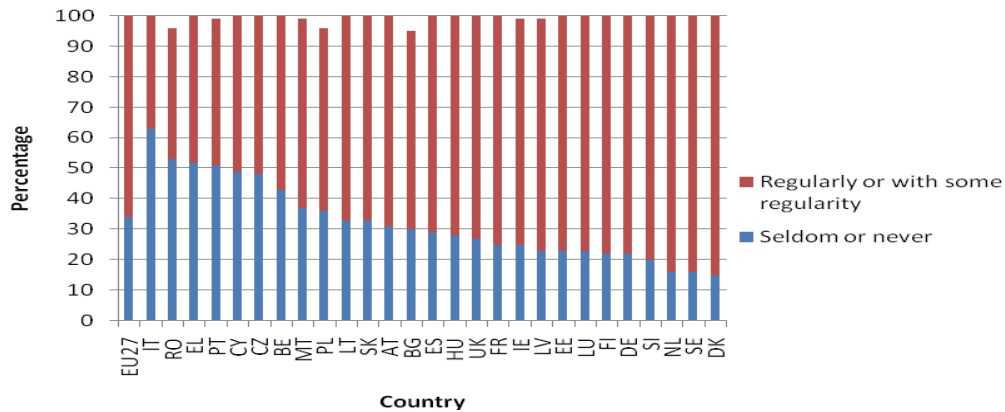
Source: Eurobarometer 2010

Participation levels in exercise/sport were generally higher among citizens of the Nordic countries and the Netherlands compared to the Mediterranean countries and accession countries. The earlier Eurobarometer (2006) report found that, although men were more likely than women to have reported engaging in sport, recreation and leisure activities in the past 7 days (18% v 12%), the majority of EU citizens (57%) reported little or no such activity.

With regard to non-sport related physical activity, the Eurobarometer (2010) study showed that 34% of men in the EU were found not to engage in physical

activity weekly (34% also for women), and this ranged from 15% in Denmark to 66% in Italy. Just 27% reported being physically active 5 or more days per week (27% also for women), and this ranged from 7% in Italy to 44% in Latvia (Fig. 1.4.21).

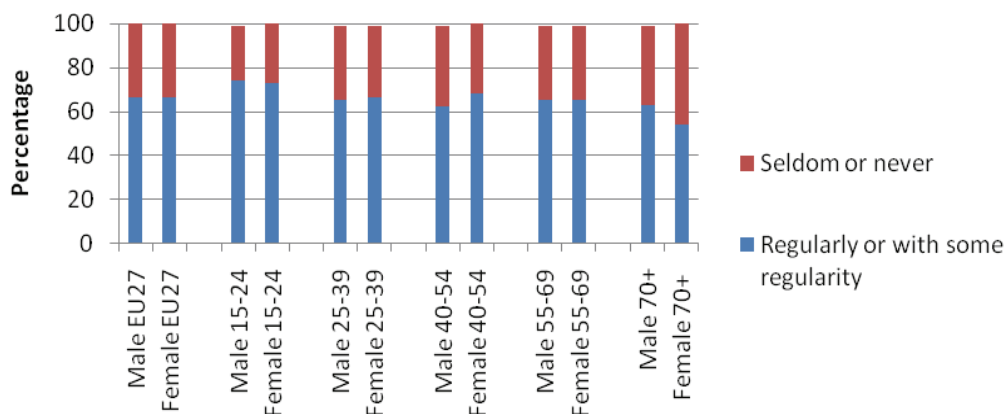
Fig. 1.4.21 Non-sport related physical activity, by country, 2010



Source: Eurobarometer 2010

Although physical activity patterns were broadly similar for men and women, women tended to be more active in the 40-54 age group, suggesting higher levels of health-consciousness or perhaps more time for physical activity among women in this age group (Fig. 1.4.22).

Fig. 1.4.22 Non sport related activity, by age and sex, EU27, 2010



Source: Eurobarometer 2010

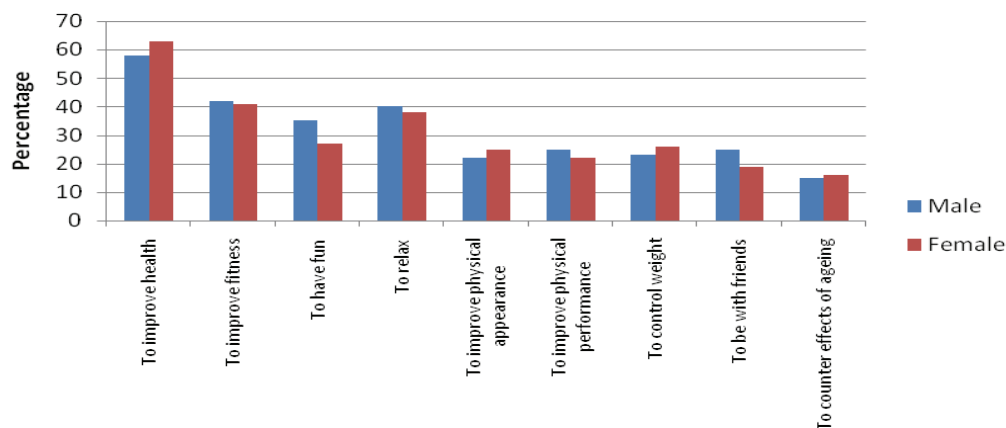
It has also been posited that men's retirement from competitive sport – often associated with an inability to maintain more youthful levels of physical fitness and sporting performance - may coincide with their retirement from physical

activity in general (Richardson, 2004). Although the Eurobarometer (2010) data shows that physical activity levels decrease after the 15-24 age group, the levels then stabilise, suggesting that those who develop regular physical activity patterns early in life are likely to remain active in later life. Low educational attainment and living alone were associated with lower levels of physical activity.

1.4.8.3 Factors influencing physical activity among men

In the context of influencing factors to engage in sport or be physically active, data from the Eurobarometer (2010) report demonstrates that women, more than men, were motivated by health reasons, to improve physical appearance and weight control; men more by having fun, to improve physical performance and to be with friends (Fig. 1.4.23).

Fig. 1.4.23 Influencing factors to engage in sport or physical activity, by sex, EU27, 2006



Source: Eurobarometer 2006

The Eurobarometer (2006) report highlighted that three quarters of EU citizens (76% of men and 71% of women) reported having sufficient opportunities to be physically active, although notably, just over half (53% of men and women) reported not having enough time to take advantage of such opportunities to be physically active.

Men are much more likely than women to engage in episodes of vigorous physical activity (2.1 v 1.3 times in past 7 days) and to spend more time engaged in vigorous physical activity (124.4 v 61.1 minutes), (Eurobarometer, 2006). It has been posited that men's preference for more vigorous physical

activity compared to women is associated with a desire to increase their muscularity, in the belief that a muscular body is a sign of status and engenders respect and professional success (Morrison et al., 2003), as well as enhancing their feelings of masculinity, confidence and attractiveness (Edwards & Launder, 2000). There is a growing amount of evidence demonstrating the importance of being muscular in both adolescent males (Jones, 2001) and adult men (Fisher et al., 2002). Indeed, the desire to gain muscle mass is often the driving factor for many men, and in particular adolescent boys, to engage in resistance training activities (Ricciardelli & McCabe, 2003). Men are also more likely than women to engage in sports that are physically dangerous such as scuba diving, parachuting, hand gliding and body contact sports (Zuckerman, 1983; 1994), to take greater risks in sport (Kraus & Conroy, 1984), and consequently to suffer more sporting injuries as a result (Bauer & Steiner, 2009). (See Section 2.4 on Accidents, Injuries and Violence).

Given the potency of physical activity as a defence against all of the chronic illnesses associated with modern living, it is imperative that men and boys throughout the EU are supported to remain physically active throughout their lifespan. From the point of view of weight management, men tend to see physical activity and sport as more relevant than nutrition (Kiefer et al., 2005) and are therefore more likely to seek to manage their weight by means of exercise than by dieting (Westenhöfer, 1996). This is also borne out by the statistics on dieting, with women (26%) being much more likely than men (15%) to have been on a diet over the past 12 months (Eurobarometer, 2006). Policy measures that are directed at increasing physical activity levels should focus on physical activity in the broadest sense, should be multisectoral, employ population-level solutions, improve the environment for physical activity and improve equity in access and the range of possibilities available for physical activity (Cavill et al., 2006).

The Annual Report of the EU Platform on Diet, Physical Activity and Health (2009) profiles a range of physical activity initiatives across Member States that can provide an impetus for promoting increased physical activity levels within the EU. Physical activity initiatives targeting men should emphasise the health, performance, social and fun aspects of physical activity and sport. Ireland's National Men's Health Policy stresses that the intrinsic value of staying active to maintain strength, power, virility and good health should be highlighted, and calls on national governing sporting bodies to provide a range of activities for

men to stave off their retirement from competitive sport (Department of Health and Children, 2008). The promotion of veterans football has been associated with significant health and fitness benefits among older men (Knoepfli-Lenzin, et al., 2010).

1.4.9 Diet

Unhealthy diets and physical inactivity are among the leading causes of the major non-communicable diseases including cardiovascular disease, type 2 diabetes and certain types of cancer, and contribute substantially to the burden of disease, death and disability within the EU (WHO, 2009). With over 50% of the adult population in the EU now overweight or obese, the WHO estimates that excessive body weight, derived from excessive food consumption and inadequate physical activity is responsible for more than 1 million life-years of ill-health every year within the EU (ibid).

Overweight and obesity are associated with excessive food consumption and, in particular, with the intake of excessive energy-dense food (i.e. food containing large amounts of saturated fats and free sugars). High energy dense diets lead to passive over consumption – that is when individuals do not recognise they are eating an energy dense food or drink (Stubbs et al., 2001). As incomes rise and populations become more urban, traditional high complex carbohydrate diets have been replaced by energy-dense, nutrient-poor foods that are high in saturated fats, sugar and salt. Higher intakes of fruit and vegetables are linked to lower levels of weight gain, while a high intake of meat together with its associated fat is linked to a greater risk of weight gain (WHO, 1998). Limiting dietary fat is considered a primary means to improve health, reduce weight, and prevent heart disease, stroke, diabetes and cancer.

The report of the WHO/FOA (Food Agricultural Organisation, 2003) on Diet, Nutrition and the Prevention of Chronic Diseases, pays particular attention to the importance of a balanced diet and its ability to prevent chronic diseases. There have also been concerted efforts within Member States to improve nutritional practices at a population level, through, for example, the development of nutrition policies, the formulation of dietary guidelines for healthy nutrition and the development of nutritional information and educational campaigns. At a food/health policy level, there have also been calls for better labelling of food, increased education on healthy food options, controls on food advertising, increased pro-healthy eating campaigns to

counterbalance private-sector advertising, and for the use of taxes and subsidies to manipulate relative prices in favour of healthy eating (Schmidhuber & Traill, 2006).

Whilst most European countries have carried out national dietary surveys that inform national nutrition policy, these differ in their ability to provide comparative dietary intake between countries. The comparability of food consumption data depends on a number of parameters, including the demographics of participating populations, the age and duration of different surveys used, the methods used to collect dietary data, and the food categorisation system and the food composition table used (EFCOSUM, 2001). The European Health Report (WHO, 2009) has stressed the importance of increasing the compatibility of sampling designs, dietary methods and selected population descriptors. Since 1993, the EU DAFNE¹⁵ (DAta Food NETworking) project has been tasked with harmonising international level dietary data from household budget surveys. Further endeavours to build on this have included the European Food Consumption Survey Method (EFCOSUM Group, 2001) and the European Food Consumption Validation (EFCOVAL¹⁶) project.

1.4.9.1 Dietary patterns among men in the EU

The European Food Safety Authority (EFSA) provides the first fully harmonised European database on the energy and nutrient intake of adults, based on the individual level, among 21 of the 31 countries representing the North, Central and East, West and South regions (Elmadfa, 2009).

1.4.9.2 Energy and Macronutrients

Overall, men's diets are generally less healthy and less nutritiously balanced than women's diets. Despite the high prevalence of overweight/obesity within the EU, the daily energy intake for males (8.5 – 13.9 MJ) was below reference values (D-A-CH, 2000) in most of the participating countries¹⁷ (Fig. 1.4.24).

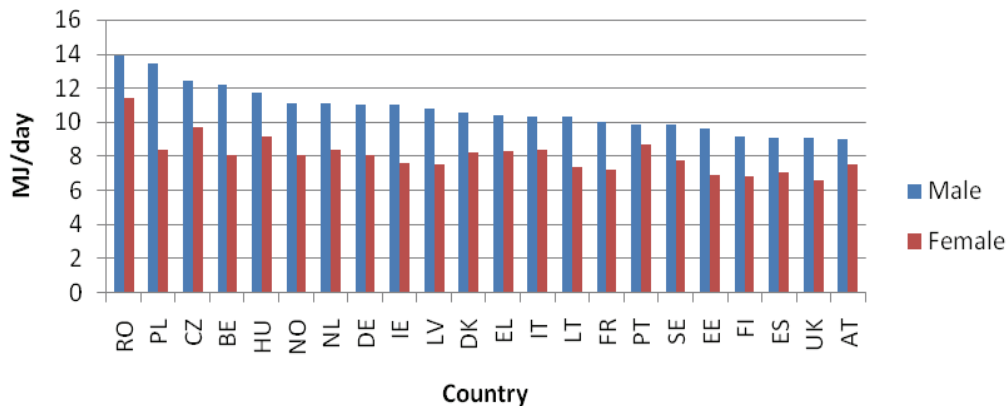
¹⁵

http://ec.europa.eu/health/ph_information/implement/wp/morbidity/docs/ev_20051213_co05_en.pdf last accessed 15/12/10

¹⁶ ¹⁶ <http://www.efcoval.eu/> last accessed 15/12/10

¹⁷ This may partly be due to under-reporting of food intake and may also be explained by the fact that a majority of EU males do not meet recommended guidelines for physical activity.

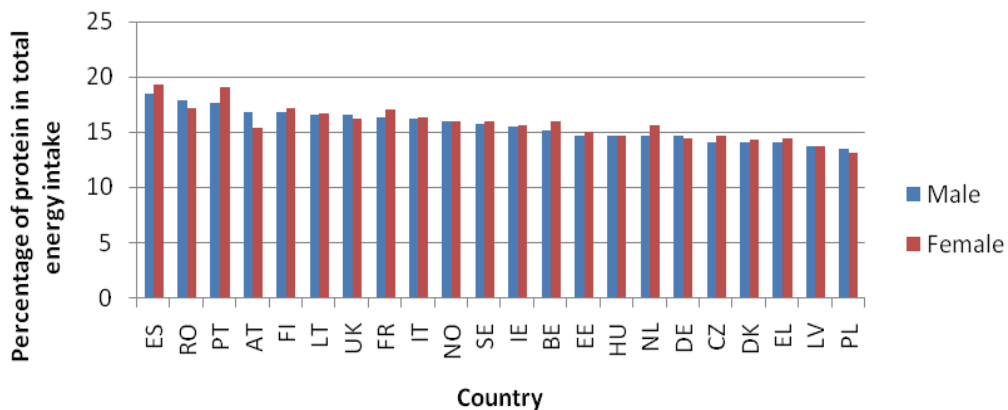
Fig. 1.4.24 Intake of energy (MJ) in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

The share of protein in total energy intake (E) is between 13.5 and 18.5% in males, which is within or slightly above the recommended range of the WHO (WHO, 2003) (Fig. 1.4.25).

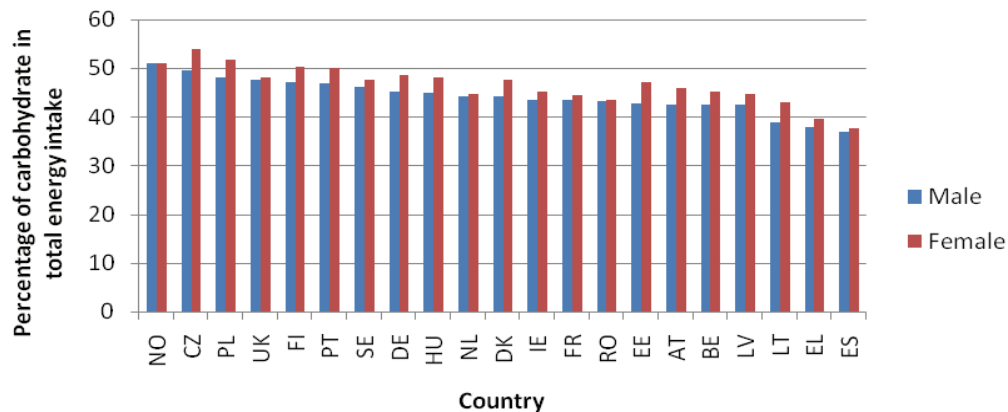
Fig. 1.4.25 Intake of protein in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

Only men from Norway were within the recommended range for carbohydrate intake (50-75%E/day; WHO, 2007), with values for males ranging from 37-51% (Fig. 1.4.26).

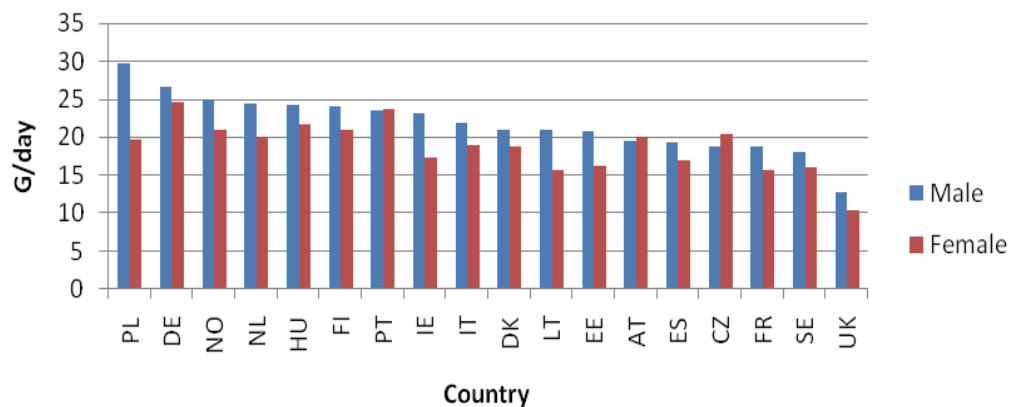
Fig. 1.4.26 Intake of carbohydrates in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

Likewise, only German, Norwegian and Polish males met the recommended daily dietary fibre intake (Fig. 1.4.27).

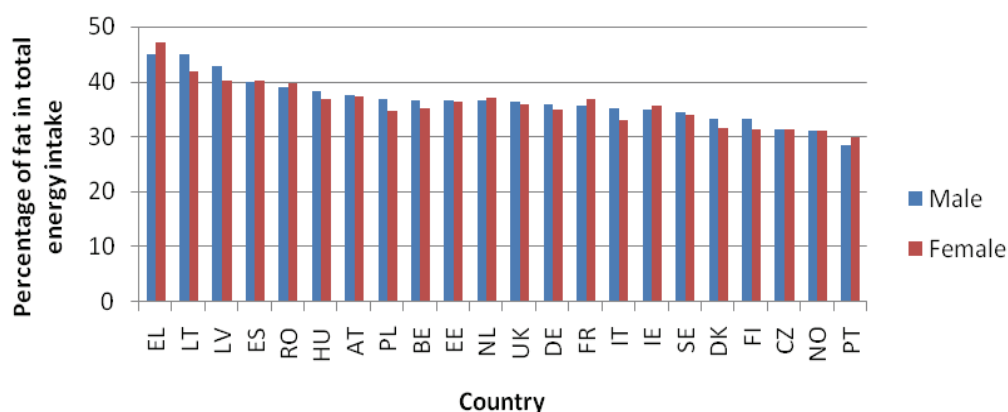
Fig. 1.4.27 Intake of fibre in adults (ages 19-64), by sex and country



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

The share of fat in total energy intake for males is between 28% and 45% E, with the majority of European countries being above the recommended range of the WHO (WHO, 2003a) (Fig. 1.4.28).

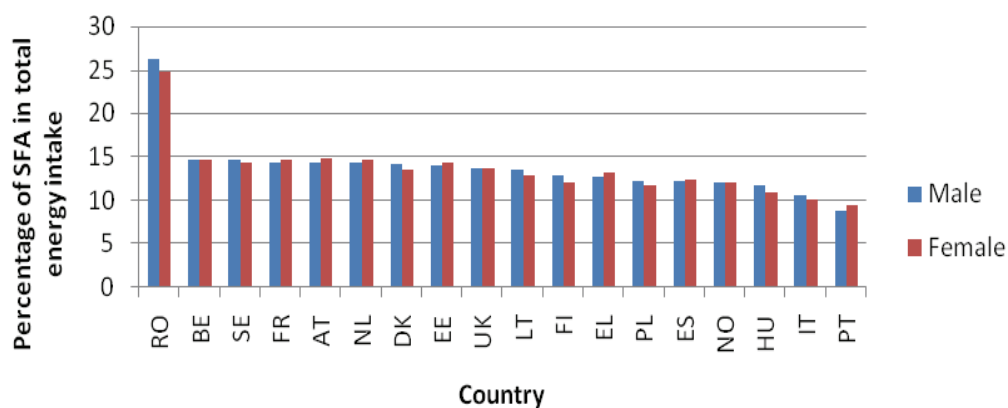
Fig. 1.4.28 Intake of fat in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

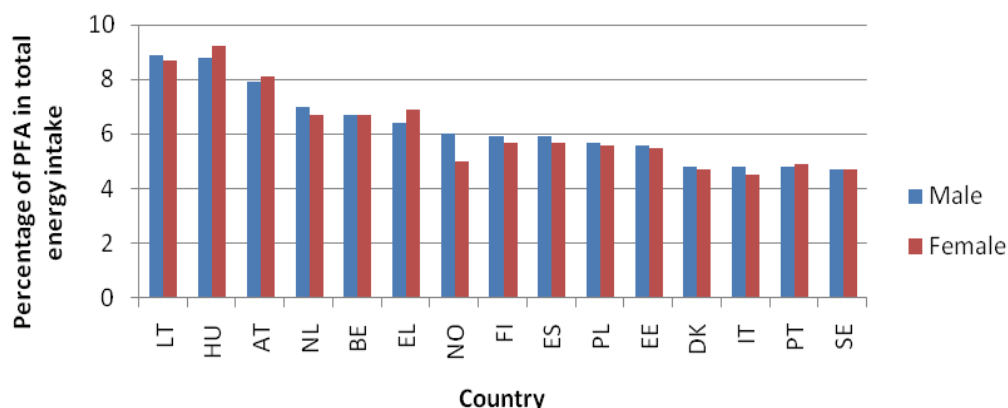
In general, the share of saturated fatty acids (SFA) is above WHO (2003) recommended levels (<10%E) (Fig. 1.4.29) and the share of polyunsaturated fatty acids (PUFA) below the recommended intake range (6-11%E) in most of the participating countries (Fig. 1.4.30).

Fig. 1.4.29 Intake of saturated fatty acids in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

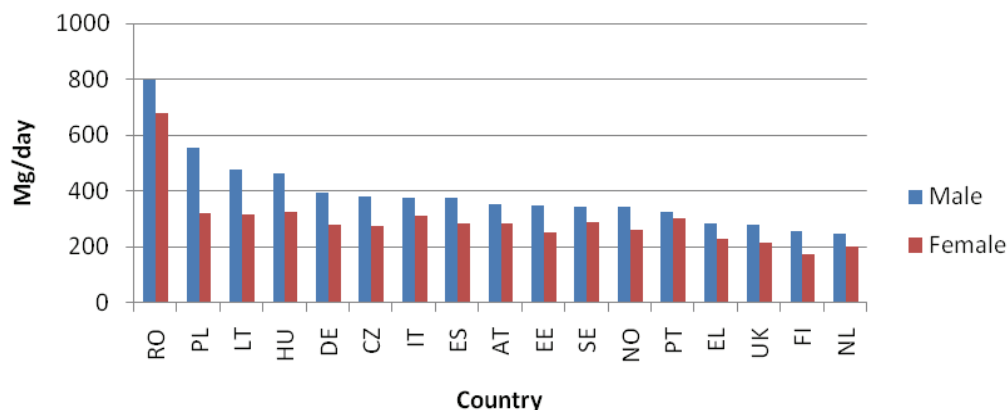
Fig. 1.4.30 Intake of polyunsaturated fatty acids in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

The intake of cholesterol is higher in males than in females (211-800 mg/day v 176-680 mg/day) and above recommended levels (WHO, 2003a) in most countries (Fig. 1.4.31).

Fig. 1.4.31 Intake of cholesterol in adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK = 25-64

Between regions, the overall energy intake and share of protein in total energy intake were broadly similar.

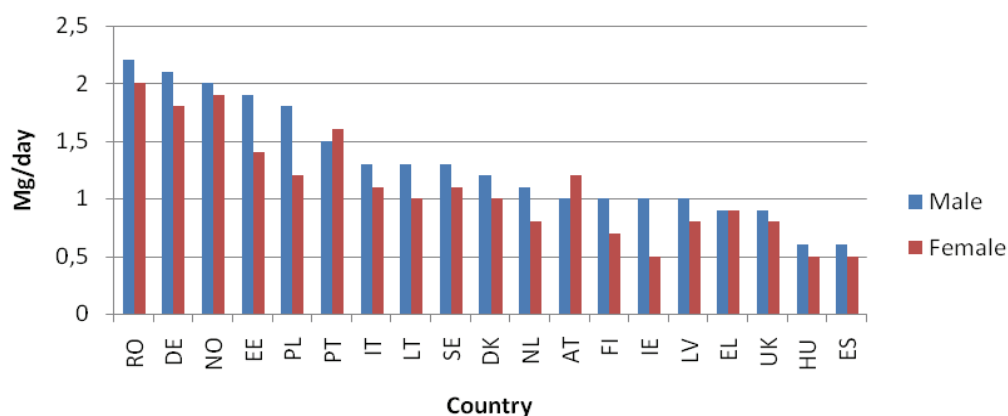
The share of carbohydrate in total energy intake was lower in the Southern region, whilst the highest as well as the lowest intake values of fat in total energy intake were observed in the Southern region (28-47%E). The highest intake values of SFA were found in the Central and Eastern region. The intake

of PUFA is relatively similar between regions, whilst the intake of cholesterol is higher in the Central and East region.

1.4.9.3 Vitamins

There are a number of instances of vitamin deficiencies among men in the EU and the intake of certain minerals is at odds with recommended levels. The intake of Vitamin A is between 0.5 and 2.2 mg/day in males, with Greece, Hungary, Spain and the UK (25-54 years) being the only countries below the recommended levels (D-A-CH, 2000) (Fig. 1.4.32).

Fig. 1.4.32 Mean Vitamin A intake of adults (ages 19-64), by sex and country, 2009

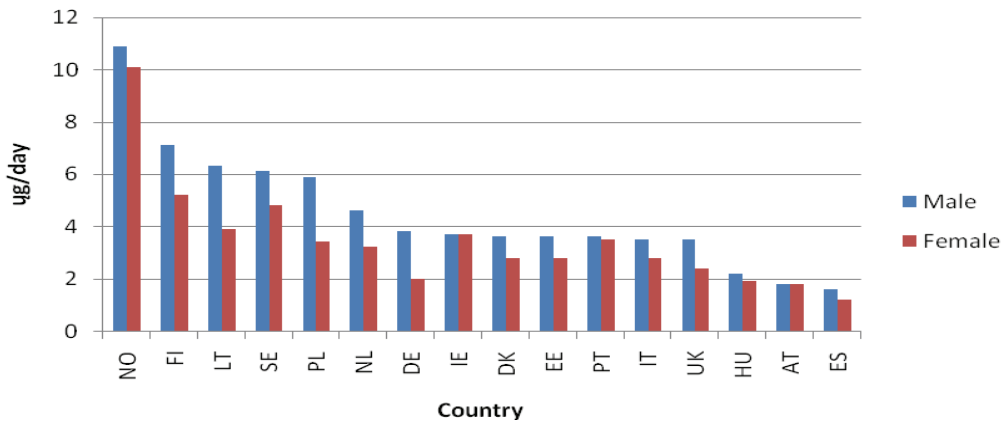


Source: Elmadfa, 2009. GR 22±2, HU ≥ 18, UK 25-64

Vitamin D intake for males ranges from 1.6-10.9µg/day, with only males from Finland, Lithuania, Norway¹⁸ and Poland meeting the recommended intake of 5µg/day (D-A-CH, 2000) (Fig. 1.4.33).

¹⁸ The recommended intake of 7.5µg/day in Nordic countries (NNR, 2004) was only met by Norwegian males)

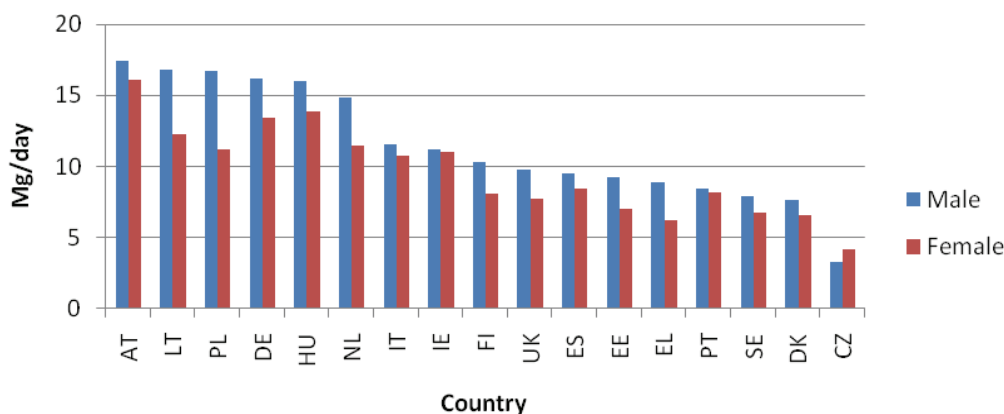
Fig. 1.4.33 Mean Vitamin D intake of adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK 25-64

The intake of Vitamin E is between 3.3 and 17.4mg/day in males (recommended levels 13 to 15mg/day for males, D-A-CH, 2000), with only Austrian, German, Hungarian and Lithuanian males meeting recommended levels (Fig. 1.4.34).

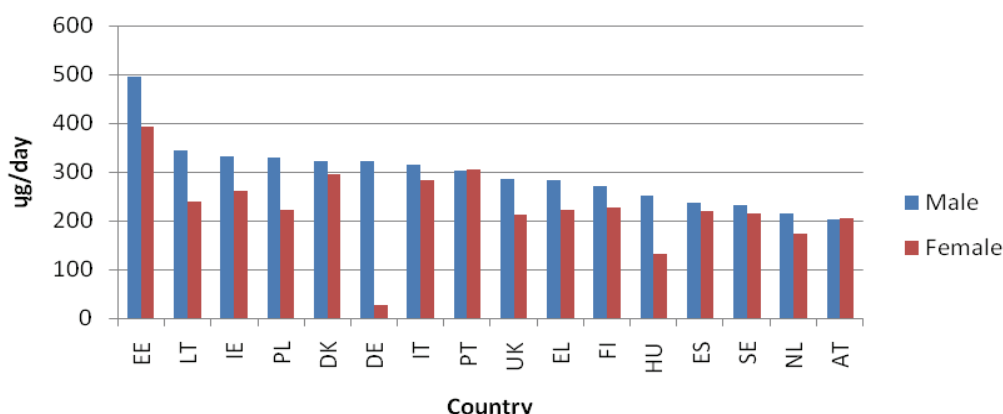
Fig. 1.4.34 Mean Vitamin E intake of adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK 25-64

Whilst the intake levels of thiamine, riboflavin and vitamin B₆ are within the recommendations (D-A-CH, 2000) for all participating countries, the intake of folate equivalents for males, which ranged from 203 – 494ug/day, is below the D-A-CH reference value of 400ug/day in most countries (Fig. 1.4.35).

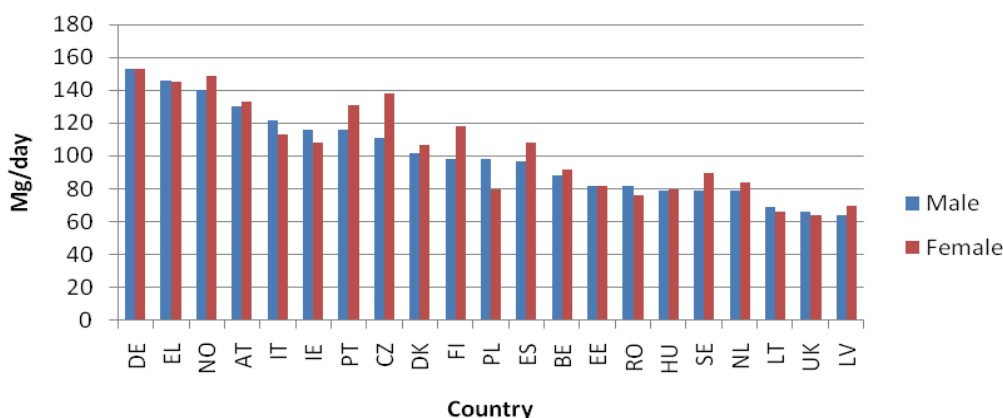
Fig. 1.4.35 Mean folate intake of adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK 25-64

Men in nine of the participating countries meet the central European recommendation of 100mg/day (D-A-CH, 2000) for ascorbic acid (Fig. 1.4.36).

Fig. 1.4.36 Mean ascorbic acid intake of adults (ages 19-64), by sex and country, 2009



Source: Elmadfa, 2009. HU ≥ 18, UK 25-64

1.4.9.4 Minerals

The intake of certain minerals is at odds with recommended levels among a number of participating countries. The intake of sodium ranges from 3.6 to 7.3g/day for men, exceeding recommended levels (0.55g/day - D-A-CH, 2000; <2g – WHO, 2003) in all countries. Potassium, manganese and phosphorous intake levels are within recommended levels (D-A-CH, 2000). The intake of calcium ranges from 687 to 1,171 mg/day in men, with males from just six of

the participating countries meeting recommended levels for central Europe¹⁹ (D-A-CH, 2000). Men in approximately one third of participating countries do not meet recommended levels for magnesium (D-A-CH, 2000), whilst males in almost all participating countries met recommended levels of iodine (Eurodiet, 2000) and copper (D-A-CH, 2000).

1.4.9.5 Overall dietary patterns and trends within the EU

In terms of overall dietary trends, Schmidhuber & Traill (2006) assessed the diets of Member States (EU 15) within the context of the WHO/FAO (2003) recommendations, with a particular focus on reviewing how diets had changed between 1961 and 2001. The predominant trend was that of convergence towards a more homogenous European diet, with Mediterranean countries having increased their intake of free sugars, saturated fats and cholesterol, with the highest-intake Northern European countries having moderated their consumption of these nutrients. Overall, the data confirm the excessive consumption by almost all countries of saturated fats, cholesterol and sugars. The main positive finding was that of a marked increase in the consumption of fruit and vegetables. In a review of DAFNE data from 10 European countries, Naska et al., (2006) similarly reported a progressive narrowing of differences in the food choices of Northern and Southern European countries, particularly in relation to fruit consumption. Pulses and olive oil remain the only two food items that characterise Mediterranean countries from Northern European countries.

A systematic review of the literature suggests that the dietary habits of some ethnic groups living in Europe have become less healthy due to acculturation and the adoption of a Western lifestyle (Gilbert & Khokhar, 2008). This has resulted in the healthy dietary components of the native diet, such as fruits, vegetables, nuts, and grains, being replaced by increased consumption of processed foods that are energy dense and contain high levels of fat, sugar, and salt. Giskes et al., (2010) conducted a systematic review of socioeconomic inequalities in intakes of dietary factors associated with weight gain and overweight/obesity among adults in Europe. Whilst the direction of associations between socioeconomic position (SEP) and energy intakes were inconsistent, overall, the findings suggest that dietary behaviours may contribute to socioeconomic inequalities in overweight/obesity in Europe. Approximately half

¹⁹ The recommendation for Nordic countries is lower (800 mg/day [NNR, 2004])

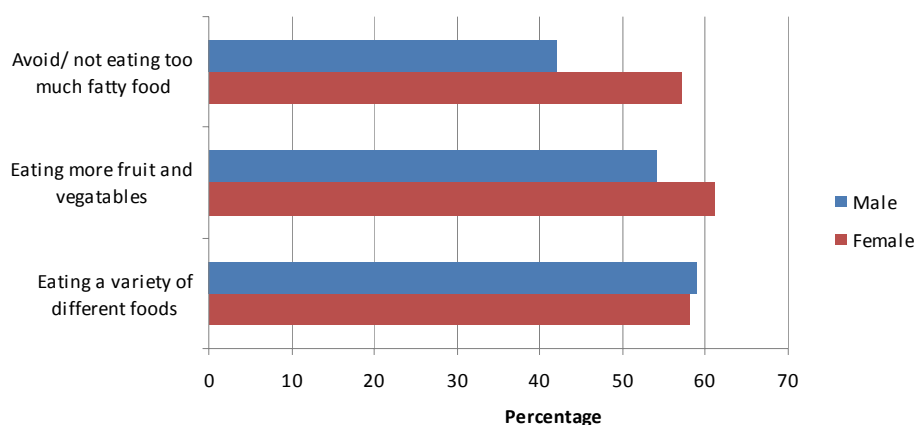
of the associations showed higher total fat intakes among socio-economically disadvantaged groups. The most consistent evidence of dietary inequalities was for fruit and vegetable consumption, with lower socioeconomic groups being less likely to consume fruit and vegetables. The WHO (2004) estimates that 2.7 million lives could be saved each year if fruit and vegetable consumption were significantly increased.

The most consistent result of epidemiological studies on diet and cancer is that a diet rich in fruit and vegetables is associated with a reduced risk of a range of different cancers (Riboli & Kaaks, 1997). Pomerleau et al., (2006) investigated the burden of disease attributable to low fruit and vegetable intake in the EU (EU25). On the basis of fruit and vegetable intake increasing to 600 g person⁻¹ day⁻¹, it was estimated that the burden of ischemic heart disease and stroke could be reduced by up to 17% and 10%, respectively, in the EU-15 and by 24% and 15%, respectively, in the EU-10. The potential reductions for selected cancers varied from 1% to 12% in the EU-15 and from 2% to 17% in the EU-10. These findings emphasise the potential health gain of increased fruit and vegetable intake in reducing cardiovascular diseases. In a study of food security in the Baltic Republics, Pomerleau et al., (2002) found that cost was the most commonly reported reason for choosing foods, especially among people with lower income levels. These findings draw attention to the importance of access to affordable, high-quality fresh foods, particularly among lower socioeconomic groups.

1.4.9.6 Gender differences in relation to diet

The Eurobarometer (2006) report compiled data on the meaning that EU citizens ascribed to 'eating a healthy diet'. The factors most strongly associated with a healthy diet were 'eating a variety of different foods' (59%), 'eating more fruit and vegetables' (58%) and 'avoiding too much fatty foods' (45%) (Fig.1.4.37).

Fig. 1.4.37 What do you think eating a healthy diet involves?



Source: Eurobarometer 2006

Men were less likely than women to associate a healthy diet with eating more fruit and vegetables (54% v 61%) or with not eating too much fatty foods (42% v 47%). Whilst the vast majority of EU citizens (81% of men and 84% of women) reported having a healthy diet, there were quite striking east/west differences between Member States (Eurobarometer, 2006). For example, whilst almost all citizens in the Netherlands (95%) and Denmark (91%) considered that they had healthy eating habits, this was much lower among citizens in Latvia (58%) and Lithuania (55%). Individual countries have undertaken analyses of their countries dietary consumption, including Lithuania who identified that there was insufficient consumption of fresh vegetables and fruits, grain products, fish and it's products, as well as a traditional over consumption of meat and meat products. The high intakes of fat (45% of energy for men and 42% for women), as well as of saturated fatty acids (13.5% of energy for men and 12.9% for women) and proteins (16.5% of energy for men and 16.7% for women) were detected. Food taste (33.6%) and cost (32.6%) were the most commonly reported reason for choosing food.

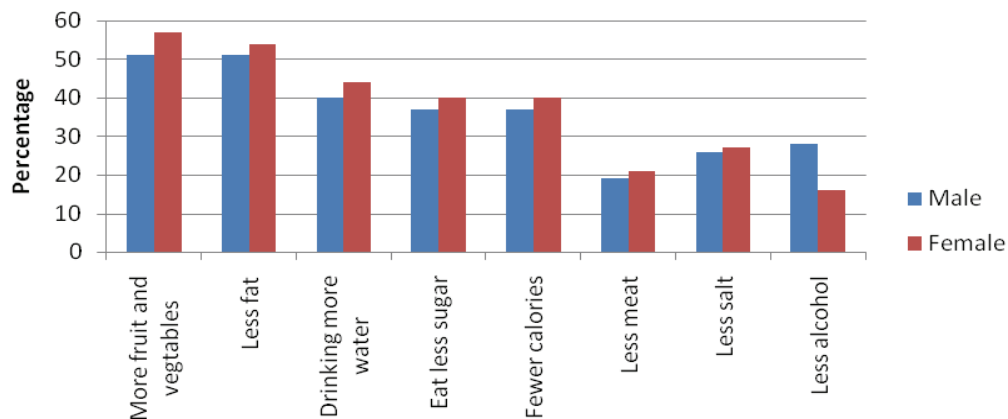
Similarly, whilst two-thirds of EU citizens (64% male and 67% female) considered that it was easy to eat a healthy diet, this ranged from 79% in the Netherlands to just 44% in Hungary. For men in the EU, lack of time for food preparation (29% v 33% for women), lack of control over diet (29% v 24% for women) and the perception that healthy food is bland and unappetising (23% v 22% for women) were highlighted as the main impediments to eating a healthy diet, with considerable variations within Member States.

Individual countries have undertaken analyses of their countries dietary consumption, including Lithuania who found insufficient consumption of fresh vegetables and fruits, grain products, fish and it's products, as well as a traditional over consumption of meat and meat products. The high intakes of fat (44.9% of energy for men and 41.9% for women), as well as of saturated fatty acids (13.5% of energy for men and 12.9% for women) and proteins (16.5% of energy for men and 16.7% for women) were detected. Food taste (33.6%) and cost (32.6%) were the most commonly reported reason for choosing food (Barzda et al., 2009).

In a qualitative study that examined barriers to healthy eating among men, Gough and Connor (2006) also reported a perception among the men that healthy food tasted bland, and that the very notion of healthy eating was associated with 'hassle', 'self-denial' and being 'boring'. There was also a scepticism and cynicism among the men toward health promotion messages filtered through the media, with many viewing such information as misleading or contradictory and as an affront to their freedom of individual choice in terms of what they ate. In reacting against such messages and choosing to forge their own paths with regard to their dietary habits, the authors concluded that endeavours to promote healthy eating among men could, paradoxically, lead to a rejection of healthy food choices. More dominant constructions of masculinity tend to be associated with autonomous decision-making over obedience to authority, and plenitude and fulfilment over scarcity and self-denial (Connell, 1995).

The Eurobarometer (2006) report also highlighted that, with the notable exception of having attempted to reduce alcohol consumption, men were less likely than women to have attempted to make changes to their diet over the past 12 months (Fig. 1.4.38)

Fig. 1.4.38 Have you changed what you eat in the last year? Answer: Yes. What are those changes?



Source: Eurobarometer 2006

The motivation for making such changes was prompted more by the desire to lose weight for women (39% v 26% for men) compared to staying healthy for men (34% v 27% for women). Irish data shows that, despite two-thirds (66.4%) of Irish males surveyed being overweight/obese, 55% felt that they did not have to make changes to their diet as it was healthy enough, while only 37% reported having modified their eating habits in the year prior to the study (IUNA, 2001). Resistance to altering diets, for men, may be reduced when there are medical grounds to do so (Gough & Connor, 2006), which highlights the potency of appropriate medical advice in altering the dietary behaviours of men.

Previous studies have highlighted that men's nutritional knowledge tends to be more limited than women's (Kiefer, 2005; Parmenter et al., 2000), and men are less likely than women to read food labels (Satia et al., 2005). This may have particular negative consequences for the dietary habits of single men living alone (Gough & Connor, 2006). Men also tend to lack control over their diet as the purchasing and the preparing of food have traditionally been the responsibility of women (Harnack et al., 1998), which may reinforce more traditional gendered norms for men, depicting them as naïve about healthy food choices (Parmenter et al., 2000). Dietary habits are also influenced by working hours, in particular for those working shift hours, and commuting long distances, which tend to be associated with an increased reliance on convenience foods, snacking and eating out (Department of Health and Children, 2005).

Against a backdrop of a growing obesity epidemic among men in the EU, it is imperative that there is an increased and gender-specific policy focus on promoting healthy eating and balanced nutrition throughout the lifespan of men and boys. Sjöström & Stockley (2001) report that the most effective interventions to promote healthy eating at a population level are those that (i) adopt an integrated, multidisciplinary, and comprehensive approach; (ii) involve a complementary range of actions; and (iii) work at an individual, community, environmental and policy level. Such an approach has implications for a whole of government and cross-sectoral approach to nutrition policy at Member State level. The application of a gender lens to nutrition policy and to dietary health promotion measures directed at men in particular, should (i) emphasise personal choice and responsibility, (ii) encourage men to reflect on their dietary habits, (iii) provide links to further health promotion information and (iv) create an association between health foods and substance/satiation to counter perceptions of healthy food as bland or unappetising (Gough & Connor, 2006).

It is well established that eating habits adopted early in life can have a marked influence on those carried into adult life – indeed, childhood obesity is an important predictor of adult obesity (Branca et al., 2007). Therefore, nutrition and dietary policy measures should have a strong focus on boys and young men. For example, reducing access to vending machines and fast food outlets during schools breaks and lunchtime, and the promotion of healthy lunch policies have been identified as important mechanisms in this regard (Department of Health & Children, 2005). The Annual Report of the EU Platform on Diet, Physical Activity and Health (2009) profiles a range of examples from individual Member States that can provide an impetus for promoting an increased focus on nutrition policy and practice within the EU.

1.4.10 Obesity

As can be seen in the previous sub-section on diet many men have a different relationship to food than women and that difference extends to the socialised images of men and women and their relationships to their own weight. However the issue with regard to men and their weight goes beyond their self perception.

The relevance of weight to men is that they tend to deposit fat intra abdominally leading to the android form of obesity characterised by the apple shape of men as compared to the gynoid form (or pear shape) of women (WHO,

2000, p.6), whose fat tends to be deposited in their hips and thighs. Though this position is changing with more women developing central obesity, especially from premenopause on (Ervin, 2009).

This visceral fat is not an inert substance but has its own endocrine function, with the creation of fat toxins (see box 1) that can lead to the fat related cancers, such as prostate, testis, bowel, liver, kidney, oesophagus. It also leads to a higher risk of developing hypertension, hyperlipidaemia, and diabetes as a result of the metabolic syndrome. Erectile dysfunction, increased risk of dementia and sleep apnoea are also seen as a consequence of excess weight.

In addition the mechanical consequences of the mass of fat within the abdomen in overweight men can lead to acid reflux, which increases the risk of oesophageal cancer (Haslam & James, 2005), disruption to gall bladder function, which increases the risk of gall bladder cancer and a high girth measurement has been found to increase risk of pancreatic cancer. A relationship has also been found between being overweight or obese and the risk of kidney cancers and reduced plasma sex-steroid-binding globulin increases risk of prostate cancer (CRUK, 2006). Calle et al., (2003) have also found that Category I obese men (BMI, 30.0-34.9 kg/m²) were 20% more likely to die from prostate cancer than normal weight men (BMI, 18.5-24.9 kg/m²), whereas men who were category II obese (BMI, 35.0-39.9 kg/m²) were 34% more likely to die from prostate cancer.

Box 1 – secretions from visceral fat cells (Chung & Leibel, 2006)

- Leptin,
- Tumor necrosis factor- α (TNF- α),
- Adiponectin,
- Interleukin-6 (IL-6),
- Inducible nitric oxide synthase (iNOS),
- Macrophage migration inhibitory factor (MIF),
- Transforming growth factor- β (TGF- β), and
- Insulin-like growth factor-1 (IGF-1)

There has been rapid increase in the number of overweight men across Europe which can be partially attributed to societal changes such as:

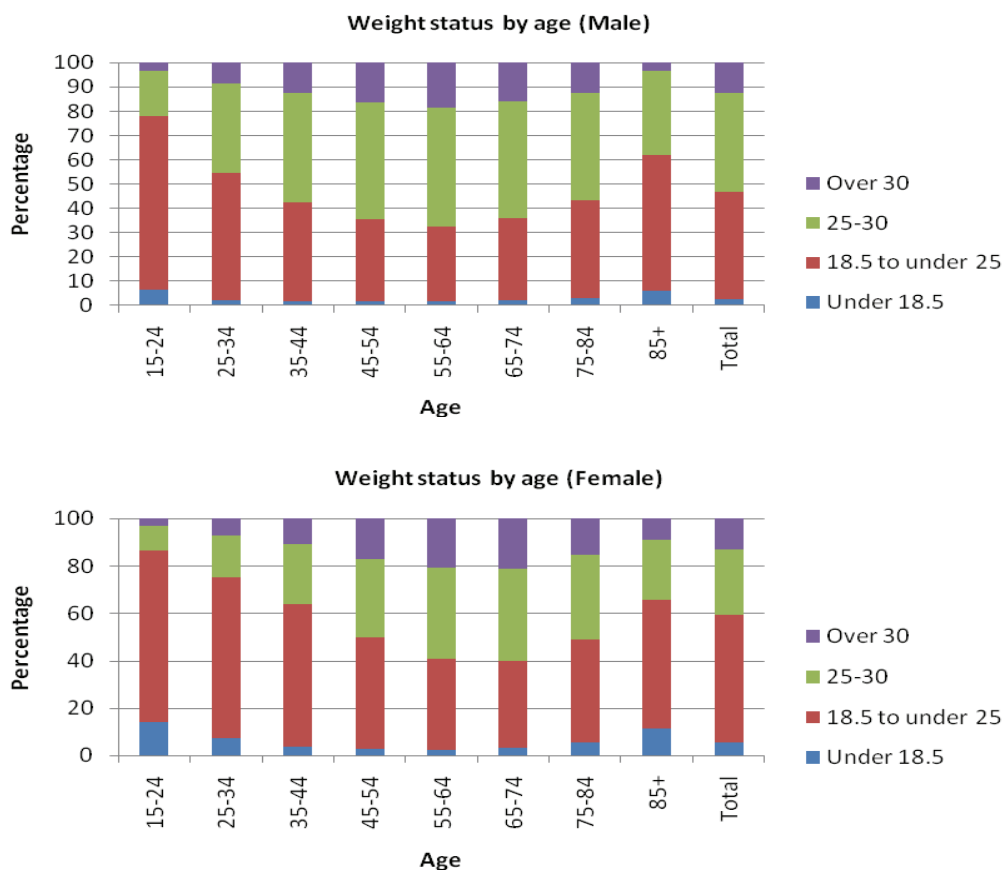
- Increasingly sedentary lifestyle
- Decline in manual labour

- Reduction in walking
- Reduced opportunity for exercise
- Changes in eating patterns
- Alcohol consumption
- Long working hours

There is also an aspect of male socialisation that can be seen to play a part in the difficulties men have with their weight. Studies exploring the differences between boys and girls perceptions of their weight and of dieting have suggested that normal weight boys tend to see themselves as underweight and normal weight girls see themselves as overweight (McCreary & Sadava, 2001).

Men's weight tends to be accumulated at a faster rate than women; there are already more men overweight by age 15-24 than women, with a mean of 22% over a BMI of 25 in men and 14% in women. The rate of increase in overweight in men is also noticeable (Fig 1.4.39) with an increase to 46% over BMI25 in the 25-34 age range in men compared to 25% in women.

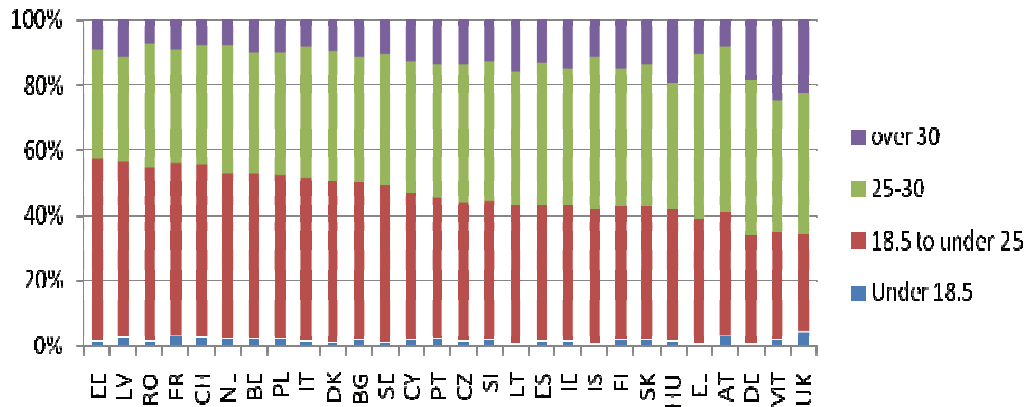
Fig. 1.4.39: Weight status by age and sex, 2004



Source: Eurostat hlth_ls_bmia

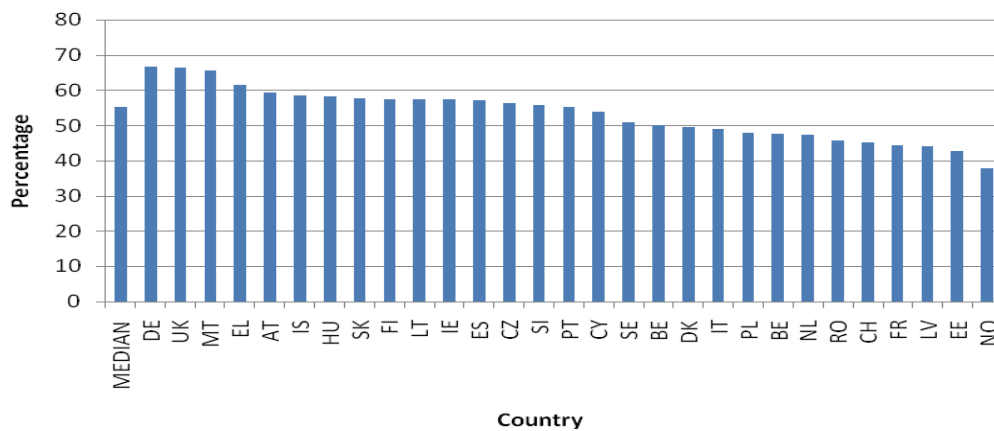
Across Europe the burden of overweight varies (Fig. 1.4.40 & Fig. 1.4.41). In Germany, UK, and Malta over 65% of men have a BMI greater than 25. In Norway, Estonia, Latvia and France all have less than 45% of their male population overweight or obese.

Fig. 1.4.40 Weight status for males, by country, 2004



Source: Eurostat hlth_ls_bmia

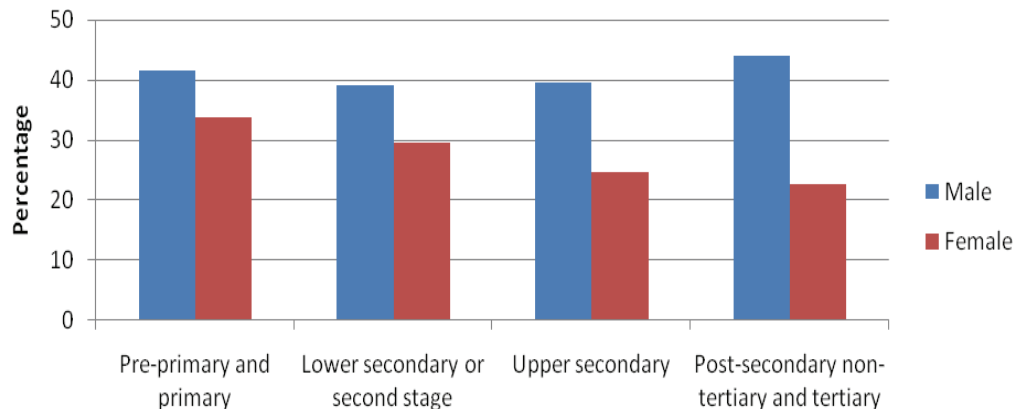
Fig. 1.4.41 Overweight & obese males (BMI > 25), by country, 2004



Source: Eurostat hlth_ls_bmia

It appears that the level of educational attainment seems to have a different relationship with levels of obesity and overweight in men as compared to women (Fig. 1.4.42). With regard to overweight (BMI 25-30) the median for the 29 countries with data available in Eurostat, suggests that the higher the educational attainment in men the greater the proportion who are overweight, and the converse for women.

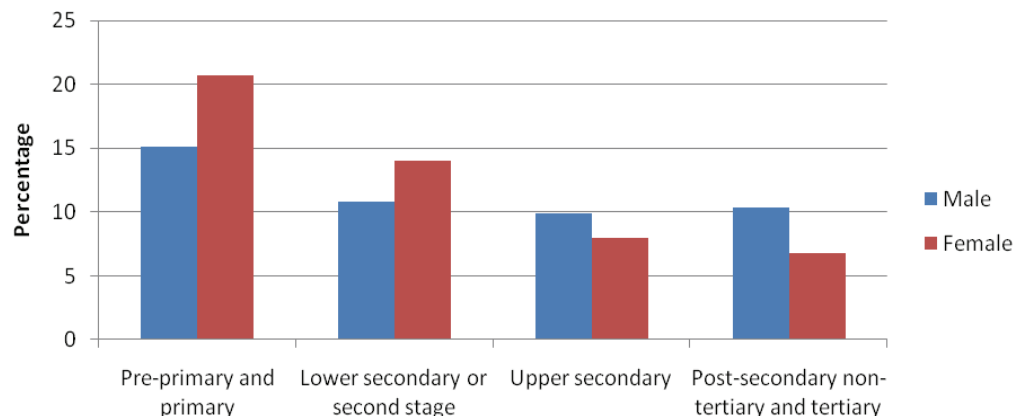
Fig. 1.4.42 Median percentage of population overweight (BMI 25-30), by sex and educational attainment, 2004



Source: Eurostat hlth_ls_bmie

Whilst for the obese category (BMI over 30), though those with the lowest educational attainment fall into this category there is more similarities between the educational groups in men than for women (Fig. 1.4.43).

Fig. 1.4.43 Median percentage of population obese (BMI over 30), by sex and educational attainment, 2004



Source: Eurostat hlth_ls_bmie

These seemingly anomalous trends may be due to men in lower socioeconomic situations being engaged in more manual work and therefore having greater energy expenditure, or due to lifestyle factors, including higher smoking levels. There may also be issues in relation to greater social acceptance of overweight in men than overweight women. Persistent obesity is not been associated with any adverse adult social outcomes in men, though in women it is associated with a higher risk of never having been gainfully employed and not having a

current partner (Viner & Cole, 2005). There is also a strong cultural component, with being big being seen as a sign of strength and prosperity.

More men being overweight across Europe is a challenge that needs to be addressed as the high visceral fat leads to many significant health problems including diabetes, hypertension, hyperlipidaemia and the fat related cancers – amongst many other health conditions. With the surprising result that increasing education does not lead to lower weight in men then this is not just an issue of lack of knowledge, but a more fundamental issue with regard to how men view their diet, activity levels and their body weight and how society has created an obesogenic environment that traps many into overweight and obesity.

1.4.11 Sexual behaviour and condom use

Sexual behaviour is another important health-related aspect of lifestyles. Large-scale population-based surveys confirm that the majority of people consider sexual activity and a pleasurable and satisfying sex life to be an important component of their overall life satisfaction or quality of life (Laumann et al., 2006; Mulhall et al., 2008; Rissel et al., 2003).

Men have more permissive attitudes toward sexuality and are more likely than women to agree that an active sex life is important for their sense of well-being (Rissel et al., 2003). Men place a greater value on the role of sex in their lives: they give higher ratings of the importance of a range of aspects of their sexual lives, and to the importance of sex in general (Laumann et al., 2006; Mulhall et al., 2008). They also help to explain why erectile dysfunction and other reproductive health problems can have such a strong impact on many men as reported in section 2.6 (see also Gurevich et al., 2004; Kunkel et al., 2000).

Sexually Transmitted Infection (STI) rates (see section 2.7) are affected by a range of factors: age of first sexual experiences, higher rates of change of sexual partners, more diverse sexual networks, and inconsistent patterns of condom use. In the absence of vaccines or effective cures for many STIs (including HIV/AIDS), an important aspect of epidemiological control entails promoting safer sexual behaviour. It is therefore important to monitor risk behaviour. However, it is often difficult to make simple comparisons because of variations in sampling, modes of data collection, and measurement methods.

There have been two efforts to coordinate collection of data on sexual behaviour in Europe. The European Concerted Action on sexual risk behaviour for HIV collected and presented information on key sexual behaviours among people aged 18-49 in 11 European countries between 1989 and 1993 (Hubert et al., 1998). Although these data are useful because of their comprehensiveness and comparability, they are limited by now being quite old. Nevertheless, the data do describe patterns of sex differences indicating more risk behaviour among men than are corroborated by other studies. Furthermore, the analyses include consideration of socioeconomic variation in patterns of sexual behaviour. More recently, the EU "Europe against AIDS" programme funded the "New Encounter Module" (NEM) for monitoring sexual risk behaviour (Bajos et al., 2003). Surveys were conducted among 18-49 year olds in England, France, Germany, Greece, Italy, Norway, Portugal, Spain, and Switzerland between 1997 and 2001.

In line with studies conducted in individual countries with representative or opportunistic samples, these pan-European studies have found consistent patterns of sex differences in sexual behaviour. Three key behaviours are outlined below: age of initiation of sexual activity; patterns of partnering; and condom use. Particular attention is given to young men, as this is the population segment in which a disproportionate number of STI diagnoses occur (ESSTI, 2008).

1.4.11.1 Age of sexual initiation

In most countries, men report a lower median age of sexual initiation than women. Data from the NEM (Bajos, 2003) and the earlier EU concerted action (Hubert et al., 1998) indicate that in the second half of the 20th century the median age of first sexual encounter declined by 3-5 years in men and women to be within the 16-18 year old range in most countries. The decline had been larger among women, such that sex differences in the median age at first intercourse have reduced over recent generations. Less educated men tend to be the most likely to report early initiation of sexual activity (ibid).

Data from an international survey of 59 countries revealed some variation in sexual behaviour among men and women in the 5 European countries that were included (Wellings et al., 2006). Men tend to report a younger age at first intercourse, and a greater proportion of men than women report first having intercourse before the age of 15. However, in line with data reported above,

there was also variation between men in relation to the age of first sexual encounter.

1.4.1.2 Patterns of partnering

Data from a range of surveys indicate that in most countries, men are markedly more likely than women to report multiple sexual partners: approximately one-third of men and one-quarter of young women report having sex with more than one person in the year prior to data collection (Hubert et al., 1998; Johnson et al., 2001). However, the NEM data (Bajos et al., 2003) indicate that there is quite wide variation between teenagers and young adults in each country and between countries.

Men are also more likely than women to report having casual sexual encounters - i.e., sex with someone other than a spouse or steady boyfriend/girlfriend (e.g., Bajos et al., 2003, Johnson et al., 2001; Nikula et al., 2007; Signorelli et al., 2006). However, again, there is wide variation between countries. Recent research suggests that sex differences may be narrowing for numbers of sexual partners and the prevalence of casual sex, with increasing numbers of women reporting these behaviours (EUGLOREH, 2007).

Within countries, there is wide variation according to age, region of residence, and sexuality: the likelihood of reporting multiple partners and having casual sexual but there is evidence to show that this tends to be greater among younger men, men living in cities, homosexual and bisexual men.

1.4.11.3 Condom use

In addition to being influenced by the numbers of sexual partners men have, the likelihood of STI infection is influenced by patterns of condom use. Consistent findings from studies of men in different countries are that men are more likely than women to report condom use, and that condom use is more likely among young men and men with higher levels of education (Hubert et al., 1998; Klavs et al., 2005; Nikula et al., 2007).

A survey of 15 year olds across 20 countries in Europe found higher rates of condom use than are found among older age groups. However, there remained a sex difference: 80% of boys reported condom use during their most recent sexual encounter compared to 70% of girls (Currie et al., 2004). However,

there was also international variation among boys, from a low of 69% in Portugal to a high of 91% Greece.

Although these rates of condom use are quite high, it must be noted that young people are more likely than older adults to use condoms: to some extent this difference may be influenced by the greater likelihood that older men will be in stable relationships and less likely to report multiple sexual partners.

Furthermore, there is some concern that patterns of condom use may be in decline (Grémy & Beltzer, 2004). Studies in France reveal that although condom use increased during the 1990s, overall use in the last year fell to 29% of men in 2001 compared to 37% in 1998 (Grémy & Beltzer, 2004).

1.4.11.4 Sexualities

Men who have sex with men (MSM) often face unique health issues. This term represents a broad spectrum of men from those who identify as homosexual or gay, to men who identify as bisexual, to men who engage in sexual activity with other men but who identify themselves as heterosexual rather than homosexual or bisexual. In addition to varying in terms of sexual identity, MSM may vary according to the contexts and circumstance of their sexual activity, from committed relationships, to opportunistic sex (e.g., in clubs or other public spaces), to coerced or forced sex. Therefore, the health challenges vary considerably due to the risky nature of some sexual encounters. Although sexual health is an obvious focus for concerns about the health of MSM, it is important to not that MSM health needs are not restricted to sexual health. MSM commonly have higher levels of alcohol and drug use (de Visser at al., 2006; Drabble at al., 2005; Hughes, 2005; Ryan at al., 2001), and are more likely to experience psychological ill-health (e.g. King at al., 2008).

Transgendered men often face particular issues in relation to physical and psychological well-being (Lombardi, 2001). Obvious challenges arise for both men and women who find themselves trapped in a physical body that does not represent who they feel themselves to be. Recognition of the physical and emotional health challenges faced by individuals as they come to terms with their dissociation and as they go through possible therapy options by both practitioners and policy makers is important, not least as this is a significant equalities issue.

1.4.12 References

- Anderson P, Baumberg B (2006) Alcohol in Europe: A Public Health Perspective. London, Institute of Alcohol Studies
- Bajos N, Guillaume A, Kontula O (2003) Reproductive health behaviour of young Europeans. Volume 1 Strasbourg, Council of Europe Publishing
- Bauer R, Steiner M (2009) Injuries in the European Union: Statistics Summary 2005-2007. Available at: <https://webgate.ec.europa.eu/idb/> last accessed 16/11/10
- Bauman A, Bull F, Chey T et al., (2009) The International Prevalence Study on Physical Activity: results from 20 countries. International Journal of Behavioural Nutrition and Physical Activity 6:21 doi:10.1186/1479-5868-6-21
- Berlin J, Colditz GA (1990) A meta analysis of physical activity in the prevention of coronary heart disease. American Journal of Epidemiology 132:212-628
- Branca F, Nikogosian H, Lobstein T (eds) (2007) The challenge of obesity in the WHO European Region and the strategy for response. Copenhagen, WHO
- Barzda, Bartkeviciute, Abaravicius, et al., (2009) Food consumption survey in adult Lithuanian population. (Medicinos teorija ir praktika (Theory and practice of medicine) 2009-T 15 (Nr.1):53-59.
- Calle EE, Rodriguez C, Walker-Thurmond K et al., (2003) Overweight, obesity, and mortality from cancer in a prospectively studied cohort of U S. adults. N Engl J Med 348:1625–38
- Canadian Fitness and Lifestyle Research Institute (1996) The Economics of Participation in Prevention Bulletin No 10
- Cavill N, Kahlmeier S, Racioppi F (2006). Physical activity and health in Europe: evidence for Action. WHO Regional Office for Europe, Denmark. Available at http://www.euro.who.int/__data/assets/pdf_file/0011/87545/E89490.pdf last accessed 18/11/10
- Chung WK, Leibel RL (2006) The Links Between Obesity, Leptin, and Prostate Cancer. The Cancer Journal 12(3):178-181
- Connell RW (1995) Masculinities. Cambridge, Polity Press
- CRUK (2006) Bodyweight and risk of cancer in the UK, Cancer Research UK. Available at <http://info.cancerresearchuk.org/cancerstats/causes/lifestyle/bodyweight/?a=5441> last accessed 13/12/10
- CSDH (2008) Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on the social determinants of health. Geneva, WHO
http://www.who.int/social_determinants/thecommission/finalreport/en/index.html last accessed 12/11/10

- Currie C, Roberts C, Morgan A (2004) Young People's Health in Context. Health Behaviour in School-aged Children (HBSC) Study. Copenhagen, WHO
- D-A-CH, (2000) Referenzwerte für die Nährstoffzufuhr. 1: Auflage. Frankfurt, Umschau Zeitschriftenverlag
- Daugbjerg SB, Kahlmeier S, Racioppi et al., (2009) Promotion of Physical Activity in the European Region: Content Analyses of 27 National Policy Documents. *Journal of Physical Activity and Health* 6:805-817
- Department of Health and Children (2005) Obesity: The Policy Challenges. The Report of the National Task Force on Obesity. Hawkins House, Dublin
- Department of Health and Children (2008) National Men's Health Policy: Working with men in Ireland to achieve optimum health and wellbeing. Dublin, Department of Health and Children
- de Visser R, Rissel C, Smith A et al., (2006) Sociodemographic correlates of smoking, drinking, injecting drug use, and sexual risk behaviour in a representative sample of Australian men aged 16–24. *International Journal of Behavioral Medicine* 13:153–162
- Directorate General for Health & Consumers (2007) Attitudes Towards Alcohol. Special Eurobarometer 272b. Brussels, European Commission
- Directorate General for Health & Consumers (2009) Tobacco control in the EU. Brussels, European Commission
http://ec.europa.eu/health/ph_information/documents/tobacco_control_en.pdf
 last accessed 19/11/10
- Directorate General for Health & Consumers (2010) Tobacco. Available at:
http://ec.europa.eu/health/tobacco/policy/index_en.htm last accessed 19/11/10
- Dowler E (2001) Inequalities in diet and physical activity in Europe. *Public Health Nutrition* 4(2B):701-709
- Drabble L, Midanik LT, Trocki K (2005) Reports of alcohol consumption and alcohol-related problems among homosexual, bisexual and heterosexual respondents: Results from the 2000 National Alcohol Survey. *Journal of Studies on Alcohol* 66:111-120
- Edwards S, Launder C (2000) Investigating muscularity concerns in male body image: development of the Swansea Muscularity Attitudes Questionnaire. *International Journal of Eating Disorders* 28:120-124
- EFCOSUM (2001) European Food Consumption Survey Final Report. TNO Nutrition and Food Research, The Netherlands

- Elmadfa I (2009) European Nutrition and Health Report. Forum of Nutrition, Vol62, Basel, Switzerland, European Commission, Health and Consumer Protection, Directorate-General
- EMCDDA (2006) Statistical Bulletin 2006. Available at:
<http://stats06.emcdda.europa.eu/en/home-en.html?CFID=20549536&CFTOKEN= a73ab 700d5997ef7-4034523B-C6A8-95EA-97017B0B2F0530FE&jsessionid=3830a53d089203f24d45684f3b2159535c66>
- EMCDDA (2009) Statistical Bulletin 2009. Available at:
<http://www.emcdda.europa.eu/stats09>, Last accessed 06/11/10
- Ervin RB (2009) Prevalence of metabolic syndrome among adults 20 years of age and over, by sex, age, race and ethnicity, and body mass index: United States 2003-2006. National Health Statistics Reports No 13. US Dept of Health & Human Services
- ESSTI (2008) Sexually Transmitted Infections in Europe. Annual Report No.3. London, Health Protection Agency
- EU Platform on Diet, Physical Activity and Health (2009) Annual Report. Available at
http://ec.europa.eu/health/ph_determinants/life_style/nutrition/platform/docs/eu_platform_2009frep_en.pdf Last accessed 10/11/10
- EU Working Group Sport & Health (2008) EU Physical Activity Guidelines: Recommended Policy Actions in Support of Health-Enhancing Physical Activity. Available at: http://ec.europa.eu/sport/library/doc/c1/pa_guidelines_4th_consolidated_draft_en.pdf last accessed 16/11/10
- EUGLOREH (2007) The Status of Health in the European Union. Available at:
http://www.intratext.com/ixt/_EXT-REP/_INDEX.HTM. Last accessed 06/11/10
- Eurobarometer (2003) Physical Activity. Special Eurobarometer 183-6/ Wave 58.2 – European Opinion Research Group. European Commission
- Eurobarometer (2006) health and Food Special Eurobarometer 246/ Wave 64.3 - TNS Opinion and Social. European Commission
- Eurobarometer (2010) Sport and Physical Activity. Special Eurobarometer 334/Wave 72.3 – TNS Opinion and Social European Commission
- European Commission (2008-233) Young people and drugs among 15-24 year-olds. Flash Eurobarometer 233. Brussels, European Commission
- European Commission (2009) Survey on Tobacco: Analytical Report. Flash Eurobarometer 253. Brussels, European Commission European Health Report Health and Health Systems. WHO, Geneva. Available at:

- http://www.euro.who.int/__data/assets/pdf_file/0009/82386/E93103.pdf last accessed 12/11/10
- European Respiratory Society (2003) *The European Lung White Book: The First Comprehensive Survey on Respiratory Health in Europe*. Lausanne, European Respiratory Society
- Fisher E, Dunn M, Thompson JK (2002) Social comparison and body image: an investigation of body comparison processes using multidimensional scaling. *Journal of Social and Clinical Psychology* 21:566-579
- General Secretariat, Council of the European Union (2004) *European Drugs Strategy (2005-2012)*. Brussels, European Union. Available at: <http://register.consilium.europa.eu/pdf/en/04/st15/st15074.en04.pdf> last accessed 18/11/10
- Gilbert A, Khokhar S (2008) Changing dietary habits of ethnic groups in Europe and implications for health. *Nutrition Reviews* 66(4):203-215
- Giskes K, Avendano M, Brug J et al., (2010) A systematic review of studies on socioeconomic inequalities in dietary intakes associated with weight gain and overweight/obesity conducted among European adults. *Obesity Reviews* 11(6):413-429
- Gough B, Connor MT (2006) Barriers to healthy eating among men; A qualitative analysis. *Soc Sc & Med* 62:387-395
- Grémy I, Beltzer N (2004) HIV risk and condom use in the adult heterosexual population in France between 1992 and 2001: return to the starting point? *AIDS* 18:805-809
- Gurevich M, Bishop S, Bower J et al., (2004) (Dis)embodying gender and sexuality in testicular cancer *Soc Sc & Med* 58(9):1597-1607
- Harnack L M, Story B, Martinson L et al., (1998) Guess who's cooking? The role of men in meal planning, shopping and food preparation in US families. *Journal of the American Dental Association* 98:995-1000
- Haskell WL (2007) Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *American College of Sports Medicine and the American Heart Association* 116(S9):1081-1093
- Haslam D, James W (2005). Obesity. *The Lancet* 366:1197-1209
- Helmchen L (2001) Can structural change explain the rise in obesity? A look at the past 100 years. Discussion paper for the population research centre at NORC and the University of Chicago

- Hibell B, Guttormsson U, Ahlström S et al., (2009) The 2007 ESPAD Report: Substance Use Among Students in 35 European Countries. Stockholm, Swedish Council for Information on Alcohol and other Drugs
- Hubert M, Bajos N, Sandford T (eds) (1998) Sexual behavior and HIV/AIDS in Europe: comparisons of national surveys. London, University College London Press
- Hughes TL (2005) Alcohol use and alcohol-related problems among lesbians and gay men. *Annual Review of Nursing Research* 23:283-325
- Idris BI, Giskes K, Borrell C (2007) Higher smoking prevalence in urban compared to non-urban areas: Time trends in six European countries. *Health & Place* 13:702-712
- IUNA (Irish Universities Nutrition Alliance (2001). North/South Ireland Food Consumption Survey. Available at <http://www.iuna.net/docs/NSIFCSummary.pdf> last accessed 17/11/10
- Jefferis B, Power C, Manor O (2005). Adolescent drinking level and adult binge drinking in a national birth cohort. *Addiction* 100:543–549
- Johnson A, Mercer C, Erens B (2001) Sexual behaviour in Britain: Partnerships, practices, and HIV risk behaviours. *Lancet* 358:1835-1842
- Jones DC (2001) Social comparison and body image: Attractiveness comparison to models and peers among adolescent boys and girls. *Sex Roles* 45:645-664
- Kaner EFS, Dickinson HO, Beyer FR et al., (2007) Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews* 18. DOI: 10.1002/14651858.CD004148.pub3
- Kiefer I, Rathmanner T, Kunze M (2005) Eating and dieting differences in men and women. *Journal of Men's Health & Gender* 2(2):194-201
- King M, Semlyen J, Tai SS et al., (2008) A systematic review of mental disorder, suicide, and deliberate self harm in lesbian, gay and bisexual people. *BMC Psychiatry* 8:70
- Klavs I, Rodrigues LC, Wellings K, et al., (2005) Increased condom use at sexual debut in the general population of Slovenia and association with subsequent condom use. *AIDS* 19:1215-1223
- Knoepfli-Lenzin C, Sennhauser C, Toigom, M et al., (2010) Effects of a 12 week intervention period with football and running for habitually active men with mild hypertension. *Scandinavian Journal of Medicine & Science in Sports* 20(s1):72–79
- Kraus JF, Conroy C (1984) Mortality and morbidity from injuries in sports and recreation. *Annu Rev Public Health* 5:163-192

- Laumann EO, Paik A, Rosen RD (2005) Sexual problems among women and men aged 40-80 y: prevalence and correlates identified in the Global Study of Sexual Attitudes and Behaviours. *International Journal of Impotence Research* 17:39-57
- Laumann EO, Paik A, Glasser DB, et al., (2006) A cross-national study of subjective sexual well-being among older women and men: findings from the Global Study of Sexual Attitudes and Behaviors. *Archives of Sexual Behavior* 35:145-161
- Lee IM, Paffenbarger RS (1997) Physical activity, fitness and longevity. *Aging* 9:2-11
- Lee PN, Hamling J (2009) Systematic review of the relation between smokeless tobacco and cancer in Europe and North America. *BMC Medicine* 7:36
- Lombardi E (2001) Enhancing transgender health care. *American Journal of Public Health* 91:869-872
- Mackenbach JP, Huisman M, Andersen O et al., (2004) Inequalities in lung cancer mortality by the educational level in 10 European populations *European Journal of Cancer* 40(1):126-135
- Martinez-Gonzalez MA, Javier J, Santos JL et al., (2001) Prevalence of physical activity during leisure time in the European Union. *Medicine & Science in Sports & Exercise* 33(7):1142-6
- McCreary DR, Sadava SW (2001). Gender differences in relationships among perceived attractiveness, life satisfaction, and health in adults as a function of Body Mass Index and perceived weight. *Psychol Men Masculinity* 2:108-116
- Medibank (2008) The cost of physical inactivity. Available at: http://www.medibank.com.au/Client/Documents/Pdfs/The_Cost_Of_Physical_Inactivity_08.pdf last accessed 10/11/10
- Merline A, O'Malley P, Schulenberg J et al., (2004) Substance use among adults 35 years of age: Prevalence, adulthood predictors, and impact of adolescent substance use. *American Journal of Public Health* 94:96–102
- Mladovsky P, Allin S, Masseria C et al., (2009) Health in the European Union: Trends and Analysis. Copenhagen, WHO
- Morrison TG, Morrison, MA, Hopkins C (2003) Striving for bodily perfection? An exploration of the drive for muscularity in Canadian men. *Psychology of Men and Masculinity* 4(2):111-120
- Mulhall J, King R, Glina S (2008) Importance of satisfaction with sex among men and women worldwide: Results of the Global Better Sex Survey. *Journal of Sexual Medicine* 5(4):788–795

- Naska A, Fouskakis D, Oikonomou E et al., (2006). Dietary patterns and their socio-demographic determinants in 10 European countries: data from the DAFNE databank. *European Journal of Clinical Nutrition* 60: 181-190
- Nikula M, Koponen P, Haavio-Mannila E, et al., (2007) Sexual health among young adults in Finland: Assessing risk and protective behaviour through a general health survey. *Scand J Public Health* 35:298-305
- Nusselder WJ (2008) The relation between non-occupational physical activity and years lived with and without a disability. *Journal of Epidemiology and Community Health* 62(9):823-828
- Parmenter K, Waller J, Wardle K (2000) Demographic variations in nutrition knowledge in England. *Health Education Research* 15(2):173-184
- Pomerleau J, Lock K, McKee M (2006) The burden of cardiovascular disease and cancer attributable to low fruit and vegetable intake in the European Union: differences between old and new Member States. *Public Health Nutrition* 9:575-583
- Pomerleau J, McKee M, Robertson A et al., (2006) Food security in the Baltic Republics *Public Health Nutrition* 5(3):397-404
- Riboli E, Kaaks R (1997) The EPIC Project: rationale and study design. *European Prospective Investigation into Cancer and Nutrition. Int J Epidemiol* 26(Suppl)1: S6-14
- Ricciardelli LA, McCabe MP (2003) A longitudinal analysis of the role of biopsychosocial factors in predicting body change strategies among adolescent boys. *Sex Roles* 48: 349-359
- Richardson N (2004) *Getting Inside Men's Health* Kilkenny: Health Promotion Department, South Eastern Health Board
- Rissel CE, Richters J, Grulich AE, et al., (2003) Attitudes towards sex in a representative sample of adults. *Australian & New Zealand Journal of Public Health* 27: 118-23.
- Ryan H, Wortley PM, Easton A et al., (2001) Smoking Among Lesbians, Gays, and Bisexuals: a Review of the Literature. *American Journal of Preventive Medicine* 21: 142-149
- Satia J Galanko JA, Neuhaus M L (2005) Food nutrition label use is associated with demographic, behavioural, and psychosocial factors and dietary intake among African Americans in North Carolina. *Journal of the American Dietetic Association* 105(3):392-402
- Schinke SP (1994) Prevention science and practice: An agenda for action. *Journal of Primary Prevention* 15: 45-57

- Schmidhuber J, Traill WB (2006) The changing structure of diets in the European Union in relation to healthy eating guidelines. *Public Health Nutrition* 9(5):584-595
- Shephard R (1996) Worksite fitness and exercise programs: a review of methodology and health impact. *American Journal of Health Promotion* 10(6): 436-451
- Signorelli C, Pasquarella C, Limina R et al., (2006) Third Italian national survey on knowledge, attitudes, and sexual behaviour in relation to HIV/AIDS risk and the role of health education campaigns. *European Journal of Public Health* 16: 498-504
- Sjostrom M, Oja P, Hagstromer et al., (2006) Health enhancing physical activity across European Union countries: the Eurobarometer study. *J Public Health* 14: 291-300
- Sjöström M, Stockley L (2001). Toward public health nutrition strategies in the European Union to implement food based dietary guidelines and to enhance healthier lifestyles. *Public Health Nutrition* 4(2):307-324
- Stephenson J, Bauman A, Armstrong et al., (2000). The costs of illness attributable to physical inactivity in Australia: A preliminary study. Australia, Department of Health and Aged Care
- Stubbs RJ, Mullen S, Johnstone AM et al., (2001) How covert are covertly manipulated diets? *International Journal of Obesity Related Metabolic Disorders* 25:567–73
- Viner RM, Cole TJ (2005) Adult socioeconomic, educational, social, and psychological outcomes of childhood obesity: a national birth cohort study
Adult socioeconomic, educational, social, and psychological outcomes of childhood obesity: a national birth cohort study. *BMJ* 330: 1354–1357
- Weitkunat R, Sanders E, Lee, PN (2007) Meta-analysis of the relation between European and American smokeless tobacco and oral cancer *BMC Public Health* 7:334
- Westenhöfer J (1996) *Gezugesenes essen und storbarkeit des essverhaltens* (Controlled eating and disruption of eating behaviours). Gottingen: Hogrefe
- Wellings K, Collumbien M, Slaymaker E (2006) Sexual behaviour in context: A global perspective. *Lancet* 368: 1706-1728
- White AK, Holmes M (2006) Patterns of mortality across 44 countries among men and women aged 15-44 years. *The Journal of Men's Health & Gender* 3(2): 139-51
- White A, Banks I (2008) Men and Help Seeking In Kirby R, Carson C, White AK Kirby M, (Eds) *Men's Health* 3rd Ed London, Informa Healthcare

- WHO (1998) Obesity: preventing and managing the global epidemic. Working Group on Obesity. Geneva, WHO
- WHO (2000) Obesity: preventing and managing the global epidemic. Geneva, WHO
- WHO (2002) The World Health Report 2002: Reducing risks, promoting healthy life. Geneva, WHO
- WHO /Food and Agricultural Organisation (2003a) Diet, Nutrition and the Prevention of Chronic Diseases. Report of a Joint WHO/FAO Expert Consultation. WHO Technical Report Series No 916. Geneva, WHO
- WHO (2003b) Framework Convention on Tobacco Control. Geneva, WHO
- WHO (2004) Global Strategy on Diet, Physical Activity and Health. WHO. Available at:
http://www.who.int/dietphysicalactivity/strategy/eb11344/strategy_english_w eb.pdf last accessed 10/11/10
- WHO (2006) European Strategy for the Prevention and Control of Non-communicable Diseases. Copenhagen, WHO
- WHO (2009) The European Health Report 2009. Health and Health Systems. Available at:
http://www.euro.who.int/__data/assets/pdf_file/0009/82386/E93103.pdf last accessed 16/11/10
- Zuckerman M (1994) Behavioural expressions and biosocial bases of sensation seeking. New York, Cambridge University Press
- Zuckerman M (1983) Sensation seeking and sports. Personality and Individual Differences 4(3):285-293

1.5 Accessing Health Services

1.5.1 Main Points

- Infrequent use of and late presentation to health services are associated with men experiencing higher levels of potentially preventable health problems and having reduced treatment options.
- The overall rate of admission to hospital is higher for men than for women for all of the principal diseases and health problems.
- Men are also less likely than women to engage in routine or preventative health checks.
- Men's poorer knowledge/awareness of health points towards the need for targeted health information to be delivered to men.
- Men's preference for the internet as an alternative to mainstream medical services can create the problem of missed diagnosis and the possibility of accessing potentially dangerous counterfeit drugs.

1.5.2 Summary

Men's usage of health services has been long recognised as a possible contributing factor in their high rate of premature morbidity and mortality. There is evidence that some men use primary health services less frequently and are more likely to need hospitalisation for the principal causes of disease. There is also evidence that men do not use preventative services at the same level as women, which may be due to the availability of services only being available during the working day so inaccessible to many men. Men have higher levels of usage of the internet for health advice and are more likely to buy drugs through this route (and therefore more vulnerable through missed diagnosis and the rise of counterfeit drugs). Conversely men tend to show no difference to women with regard to presenting with symptoms of illness. Where services have been set up in ways that make access easier then men have used them and many have been shown to have high levels of hidden problems, both physical and emotional.

Against a background of higher premature death rates among men for nearly the whole range of non-gender specific disease and illness, there is an urgent need for more targeted measures that enable boys and men to recognise their health risks and to take increased responsibility for managing their own health.

There is a need for the provision of training for GP's and other healthcare professionals on the gendered aspects of health and illness and, in particular, on best practice in engaging men with health services. There also needs to be an increased focus on how health services can be configured to be more successful at targeting men.

1.5.3 Introduction

It has been consistently shown that men of different ages, ethnicities and social backgrounds access health services less frequently than women (Evans, 2005, Addis & Mahalik, 2003, Randall & Barroso, 2002, White & Johnson, 2000). That men's lower contact rates with primary care services are offset by higher hospitalisation rates (Juel & Christensen, 2007) and when men do avail of primary care services, consultation times tend to be shorter than for women, and men tend to ask fewer questions (Courtenay, 2000). Men who are unemployed or in manual work tend to attend a doctor more often than those engaged in managerial or professional occupations (Office for National Statistics, 2004). Infrequent use of and late presentation to health services have been associated with men experiencing higher levels of potentially preventable health problems and having reduced treatment options (Banks, 2001; Fletcher at al., 2002; Parslow at al., 2004). This is of particular concern in the context of men's higher risk of developing and prematurely dying from a range of health conditions (White & Holmes, 2006). Increasing men's use of primary care services is particularly important, since primary care is usually the gateway to accessing other healthcare services, and is a crucial link in the continuum of effective health service utilisation. In order to promote increased and more prompt usage of health services by men, it is important to identify potential limitations within existing services in not meeting men's needs, and possible barriers within men themselves that may lead to a delay in seeking help. It is also important to identify where such barriers exist for men, in terms of the chain of events leading from perception of need through to attendance at primary care (Adamson at al., 2003). Consideration should also be given to the variability within and between men and in different help-seeking situations (Addis & Mahalik, 2003).

1.5.3.1 Equity of access to health services

Within a health inequalities context, there has been considerable focus on the extent to which health care systems enable equitable access to health services. An equitable system of health care delivery is firmly embedded in EU policy

(European Council, 2006) and is a core objective in most EU Member States (WHO, 2009). The main differences in the provision of primary care between countries in Europe concern the presence or absence of registration with a general practitioner and the gate-keeper role of primary care (Thomas, 2005). When both of these features are present, health outcomes, in terms of morbidity and mortality tend to be better (ibid).

Access to hospitals is also influenced by income. This accessibility gap between the highest and the lowest income quartiles is particularly pronounced in the new Member States (Alber & Kohler, 2004). There is also an accessibility gap between unemployed and retired people compared to those who are employed, with such disparities also being considerably higher in new Member States (ibid).

Equitable access to hospitals can also be compromised by geographical barriers. In the UK, Morris et al., (2005) found that low income individuals and ethnic minorities have lower use of secondary care despite having higher use of primary care.

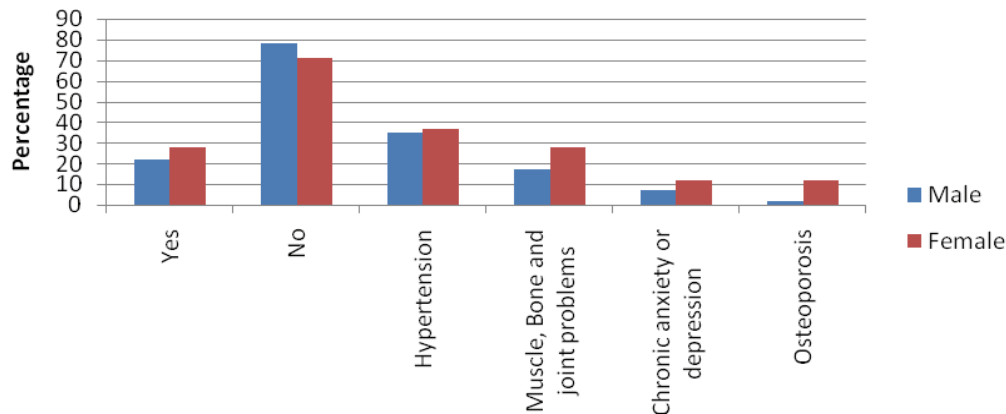
There has been an increased focus on the issue of informal payments with regard to equity of access to health services. In Greece, for example, Liaropoulos et al., (2008) highlight that a very high percentage of informal payments are made in order to gain access to public hospitals and in anticipation of a higher quality of services. Despite universal coverage of the population by public health insurance, the authors report that informal payments are common and are a major source of inequity and inefficiency in the Greek health care system. Unofficial payments are particularly prevalent in the transition countries of Central and Eastern Europe (Gaal & McKee, 2005; Ensor, 2004). In Bulgaria, Balabanova and McKee (2002) demonstrate that the longstanding principle of comprehensive free coverage has been significantly eroded by 'informal payments', especially in the form of gifts. Such payments have stemmed from the low income of staff, patients seeking better treatment and acute funding shortages within the healthcare system.

1.5.3.2 Are men 'healthier' than women?

Men are less likely than women to report a long-standing illness or health problem (26% v 31%) or to be undergoing a medical long-term treatment (22% v 28%) (Eurobarometer, 2007 – Fig. 1.5.1). Hypertension (35% for men,

37% for women) and muscle, bone and joint problems (17% for men, 28% for women) are cited as the most common reasons for medical long-term treatment. There is a higher incidence of all reported health problems in women than in men. Hypertension is more of a problem in East-Central Europe and the Mediterranean, whilst muscle, bone and joint problems are more prevalent in East-Central Europe.

Fig. 1.5.1 Are you undergoing a medical long-term treatment?



Source: Eurobarometer 2007

Not surprisingly, the same report (Eurobarometer, 2007) found that men were less likely than women to report long-term disruption of activities due to health problems (26% v 31%); to report pain in the past week that affected their daily living (27% v 37%), or to report chronic restrictive pain (22% v 28%).

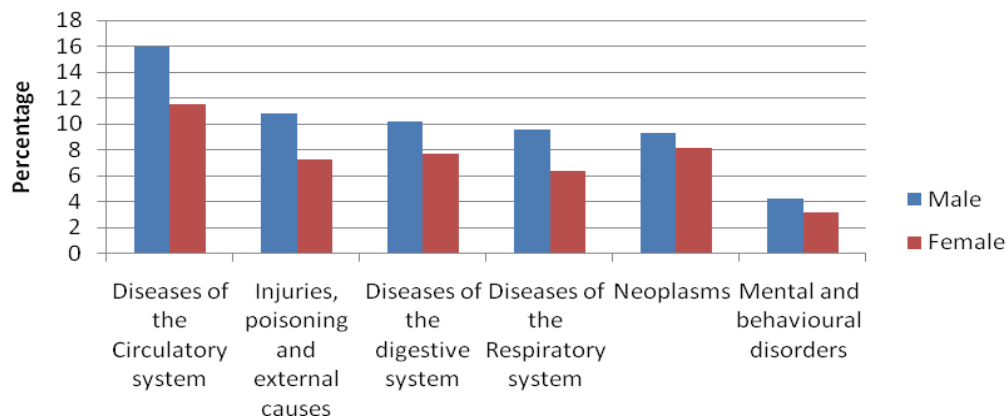
1.5.4 Hospitals

1.5.4.1 Hospital admissions

Despite reporting less ill-health and less disruption to normal activities due to ill-health, the overall rate of admission to hospital is higher for men than for women for all of the principal diseases and health problems (European Hospital Morbidity database²⁰; see Fig. 1.5.2). Diseases of the circulatory system (16%), injuries, poisoning and external causes (11%) digestive system (10%), respiratory system (10%), neoplasms (9%) and mental and behavioural disorders (4 %) account for the highest proportion of hospital admissions for men.

²⁰ Latest available data 2007 (Denmark and Italy 2006; Netherlands, Portugal and Spain 2005) using combined ISHMT and ICD-10)

Fig. 1.5.2 Diseases as a percentage of all in-patient admissions, by sex, EU_V¹

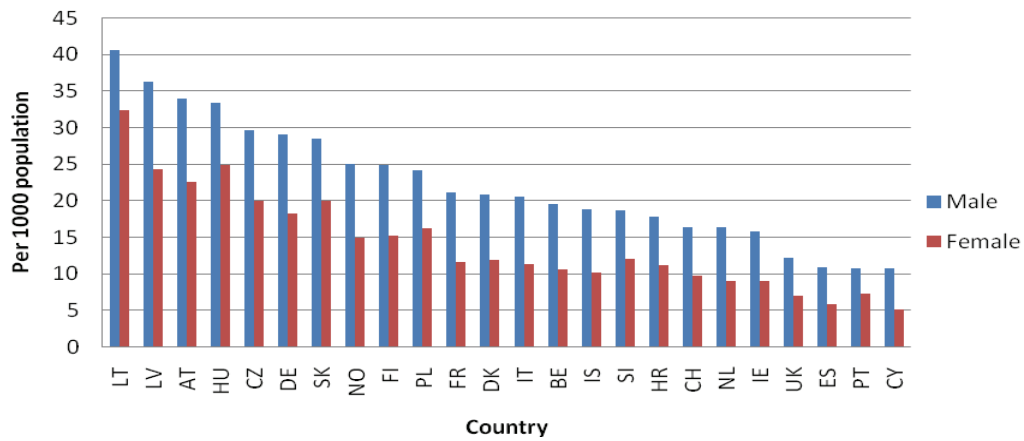


Source: HMDB ¹ EU_V aggregate which varies according to countries available

There is considerable variability between countries, with differences in age standardised admission rates for the six main health categories for men ranging from 10.7 (Cyprus and Portugal) to 40.6 (Lithuania) for Circulatory Diseases; 7.2 (Portugal) to 31 (Austria) for Injuries, Poisoning and External Causes; 9 (Netherlands and Cyprus) to 24 (Austria) for Digestive Diseases; 8 (Netherlands) to 33.6 (Lithuania) for respiratory problems; 5.3 (Cyprus) to 26 (Hungary) for neoplasms; and 1 (Poland, Cyprus, Netherlands) to 17.5 for mental and behavioural disorders (see Fig. 1.5.3).

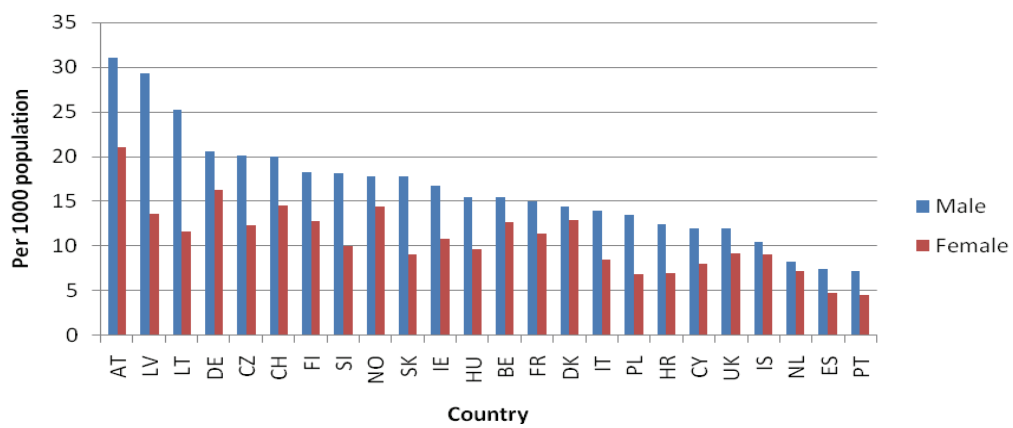
There are some notable male/female differences in admission rates within countries. For example, the age standardised admission rates for neoplasms are considerably higher in Hungary for men than for women (26/21), whilst a reversal of this pattern is seen in Latvia (15/20). Mental and behavioural disorders are notably higher for men than for women in both Latvia (18/10) and Lithuania (14/8). These same countries have the highest rate of admissions and the largest male/female differences in rate of admissions for respiratory diseases (34/24 for Lithuania and 32/25 for Latvia) Fig 1.5.6. Whilst admission rates for injuries poisoning and external causes are higher for males than for females across all countries, the gap is particularly pronounced in Austria, Latvia and Lithuania (Fig. 1.5.4).

Fig. 1.5.3 Age standardised admission rates per 1000 population for Diseases of the circulatory system, by sex, and country, latest year¹



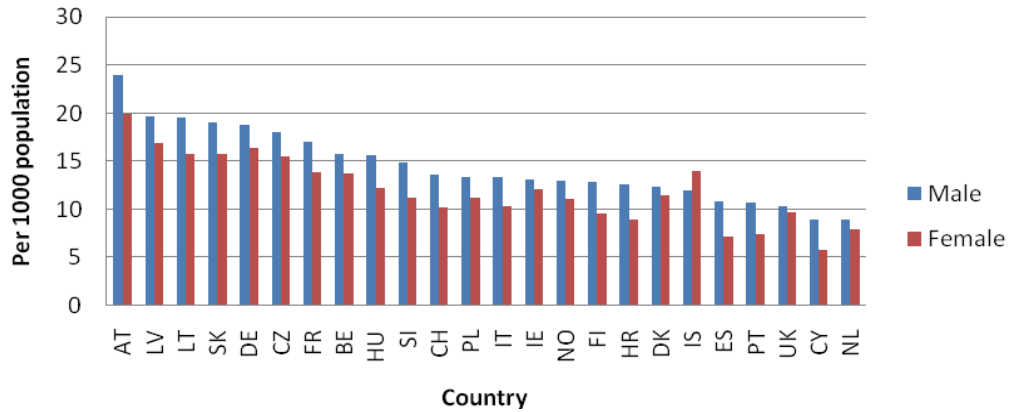
Source: HMDB. ¹ 2007 except HR, DK, IS, IT (2006). NL, PT, ES (2005)

Fig. 1.5.4 Age standardised admission rates per 1000 population for Injuries, poisoning and external causes, by sex and country, latest year¹



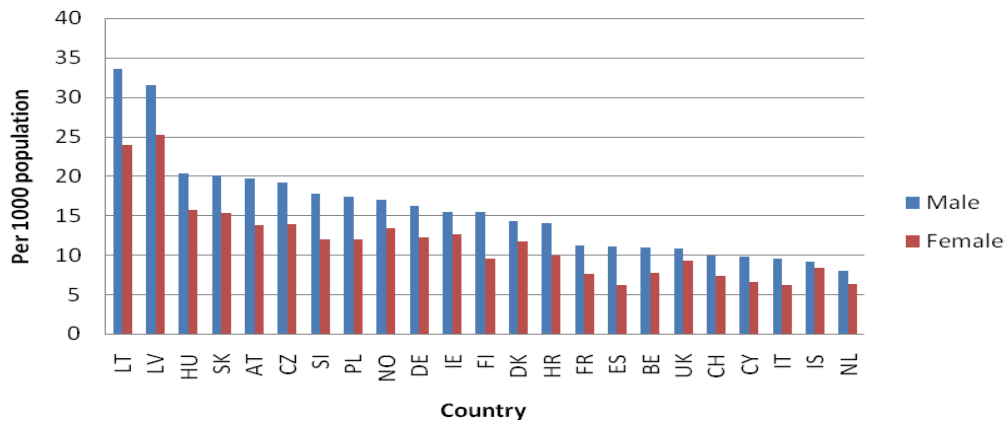
Source: HMDB. ¹ 2007 except HR, DK, IS, IT (2006). NL, PT, ES (2005)

Fig. 1.5.5 Age standardised admission rates per 1000 population for Diseases of the digestive system, by sex and country, latest year¹



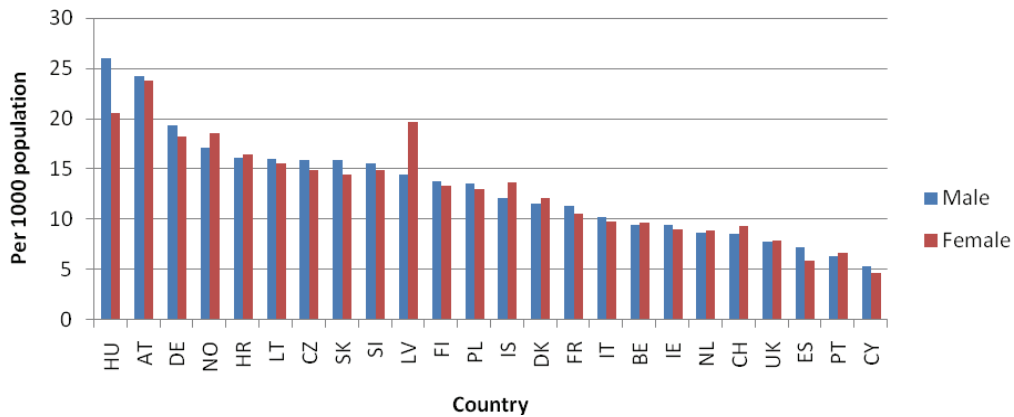
Source: HMDB. ¹ 2007 except HR, DK, IS, IT (2006). NL, PT, ES (2005)

Fig. 1.5.6 Age standardised admission rates per 1000 population for Diseases of the respiratory system, by sex and country, latest year¹



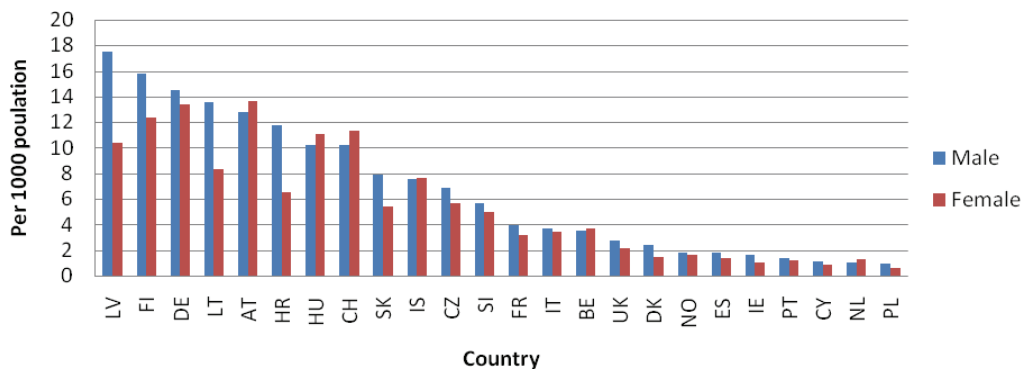
Source: HMDB. ¹ 2007 except HR, DK, IS, IT (2006). NL, ES (2005)

Fig. 1.5.7 Age standardised admission rates per 1000 population for Neoplasms, by sex and country, latest year¹



Source: HMDB ¹ 2007 except HR, DK, IS, IT (2006). NL, PT, ES (2005)

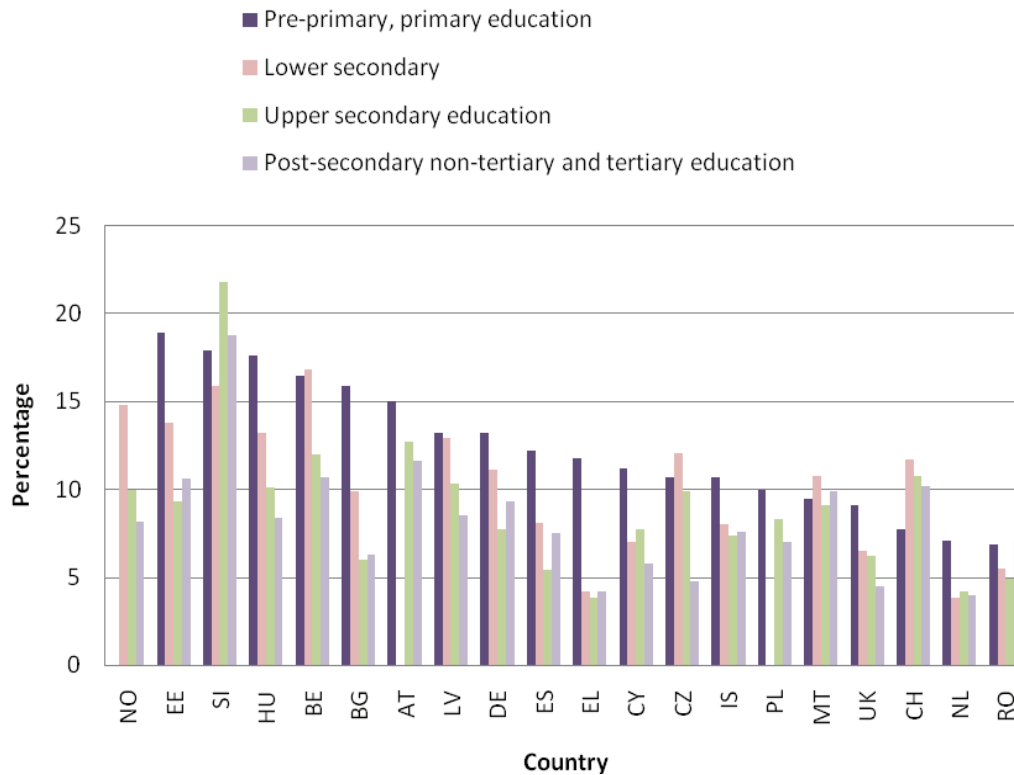
Fig. 1.5.8 Age standardised admission rates per 1000 population for Mental and behavioural disorders, by sex and country, latest year¹



Source: HMDB. ¹ 2007 HR, DK, IS, IT (2006). NL, PT, ES (2005)

There is a general pattern of higher admission rates to hospital among lower educated men (Fig. 1.5.9).

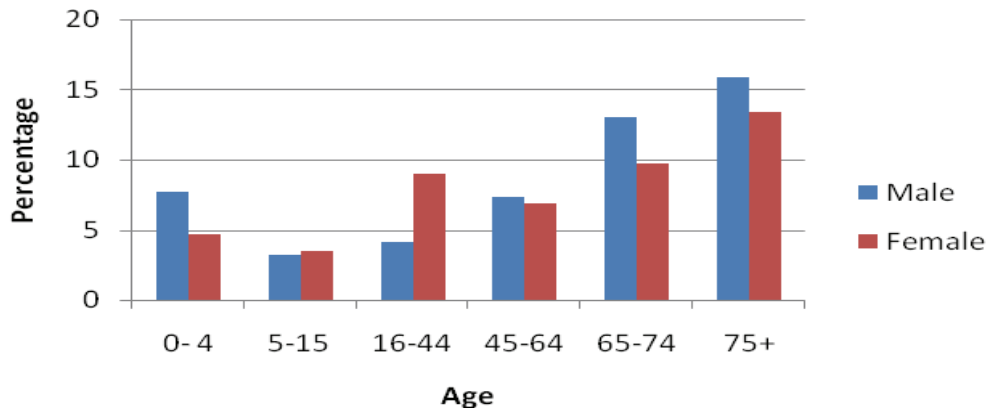
Fig. 1.5.9 Percentage of male inpatient hospitalisations in past 12 months, by level of education and country, 2004



Source: Eurostat hlth_co_inpe

UK data indicates that admission rates to hospitals are also influenced by age, with almost twice as many men as women in the 65-74 age group reporting hospitalisation in the previous 12 months (see Fig. 1.5.10).

Fig. 1.5.10 Inpatient stays in the twelve month before interview, by sex and age, UK, 2003

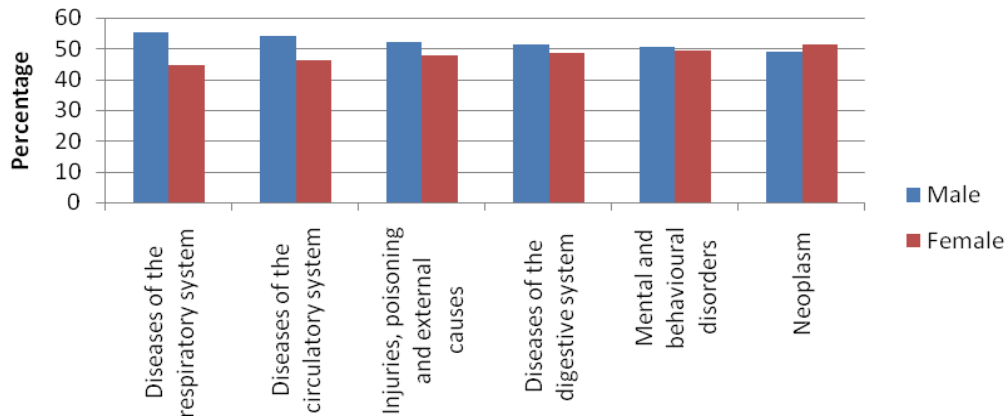


Source: Office for National Statistics, 2006

1.5.4.2 Hospital discharges

With the notable exception of neoplasms, the overall rate of discharge from hospital is higher for men than for women for all of the principal diseases and health problems (European Hospital Morbidity database)²¹ (Fig. 1.5.11)

Fig. 1.5.11 Percentage of discharges, by disease and sex, EU_V¹



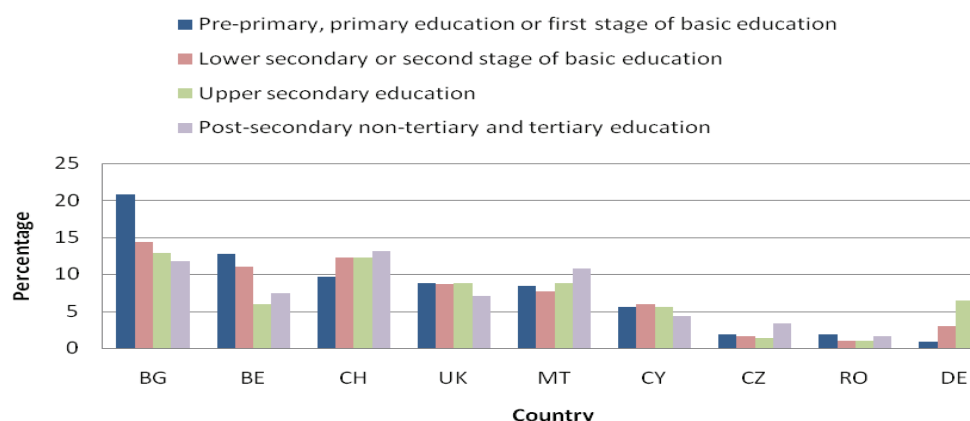
Source: HMDB ¹ EU_V aggregate which varies according to countries available

1.5.4.3 Day patient hospitalisations

Whilst there are no pronounced male/female differences in day patient hospitalisations, there are notable differences between countries, ranging from 17 (Bulgaria) to 2 (Germany, Czech Republic and Romania; Fig. 1.5.12). It should be noted, however, that this may be an artefact of the health systems in these countries and should be treated with caution. For example, in Romania, there are only a few specific fees for these services. For all the rest, the fee for day hospitalisation is one third of the DRG groups. Even those cases that are treated by day hospitalisations are reported as a full admission.

²¹ Latest available data 2007 (Denmark and Italy 2006; Netherlands, Portugal and Spain 2005) using combined ISHMT and ICD-10

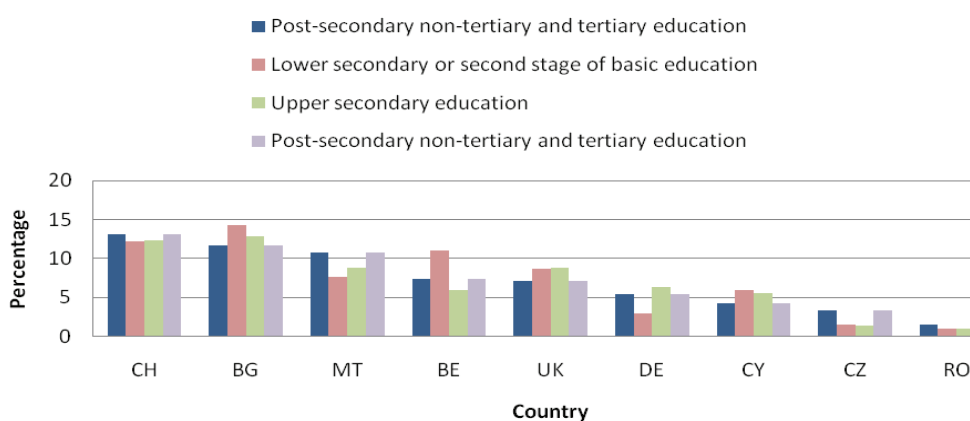
Fig. 1.5.12 Percentage of male day patient hospitalisation during past 12 months, by level of education and country, 2004



Source: Eurostat hlth_co_daye

The relationship between male day patient hospitalisations and education varies between countries (Fig. 1.5.13). In some countries (e.g. Bulgaria, Belgium), male day patient hospitalisations are higher among those with lower levels of education, whilst this pattern is reversed in other countries (e.g. Germany).

Fig. 1.5.13 Percentage of male day patient hospitalisations, by level of education and available countries, 2004



Source: Eurostat hlth_co_daye

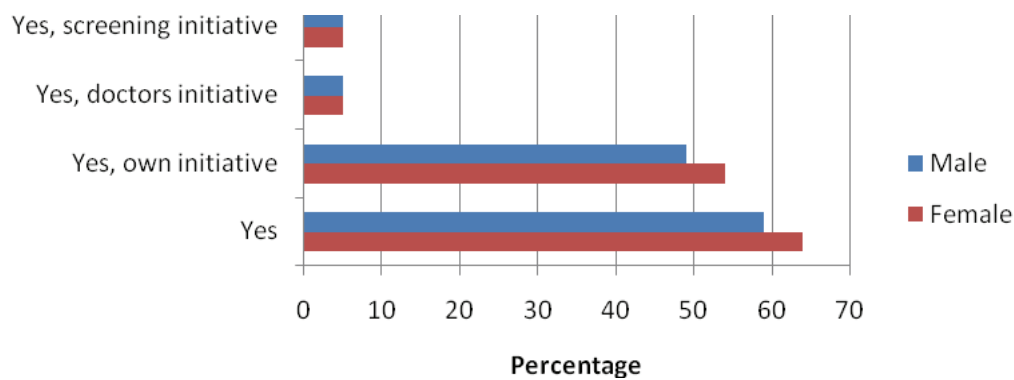
1.5.5 Health Checks

1.5.5.1 Dental, eye, hearing

Overall, men are less likely than women to avail of dental check-ups (see Section 2.9 on dental health) and sight tests but more likely to avail of hearing tests (Fig. 1.5.14, Fig. 1.5.15, Fig. 1.5.16). Whilst over half of men in the EU

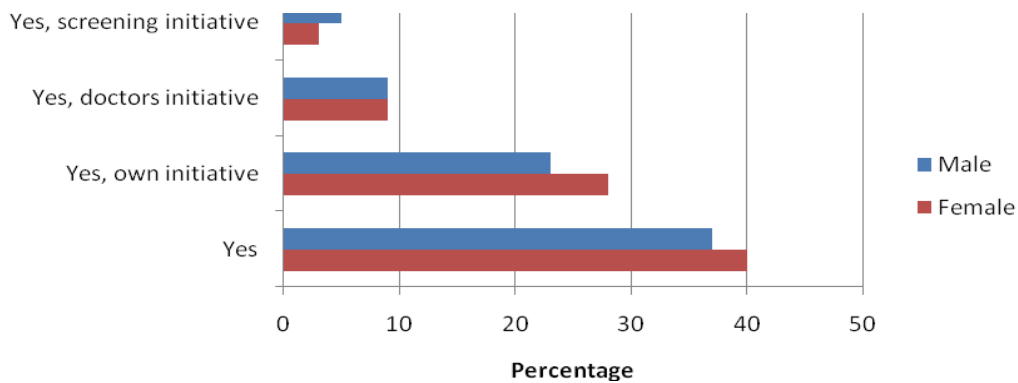
reported having an annual dental check-up (59% v 64% for women), the uptake of eye tests (37% for men, 40% for women) and hearing tests (19% for men, 13% for women) are less common. Whilst the initiative for the majority of dental check-ups and eye tests comes from men themselves, the majority of hearing tests undertaken by men are at the prompting of a doctor or as part of a screening initiative. There were also considerable variations between countries. For example, the overall uptake of dental check-ups ranged from 81% in Luxemburg to 36% in Spain and Romania. Similarly, eye tests ranged from 58% in Luxemburg to 22% in Bulgaria and Romania.

Fig. 1.5.14 Have you had a dental check up in the last 12 months? EU25, by sex and initiative



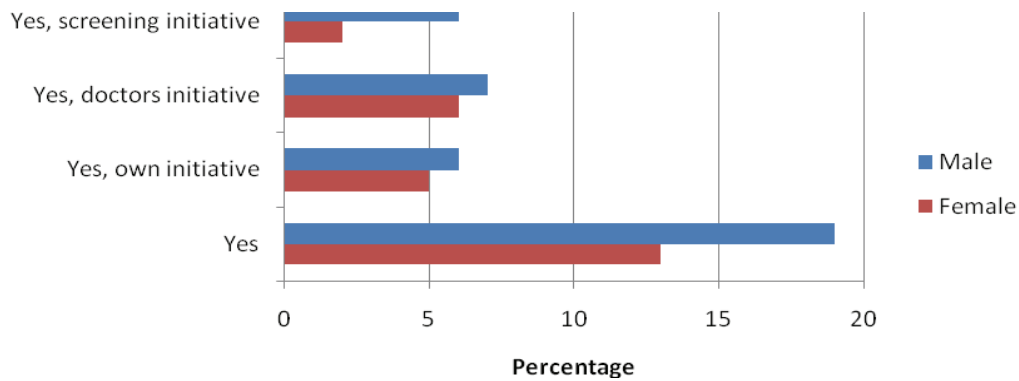
Source: Eurobarometer 2007

Fig. 1.5.15 Have you had an eye test in the last 12 months? EU25, by sex and initiative



Source: Eurobarometer 2007

Fig. 1.5.16 Have you had a hearing test in the last 12 months? EU25, by sex and initiative

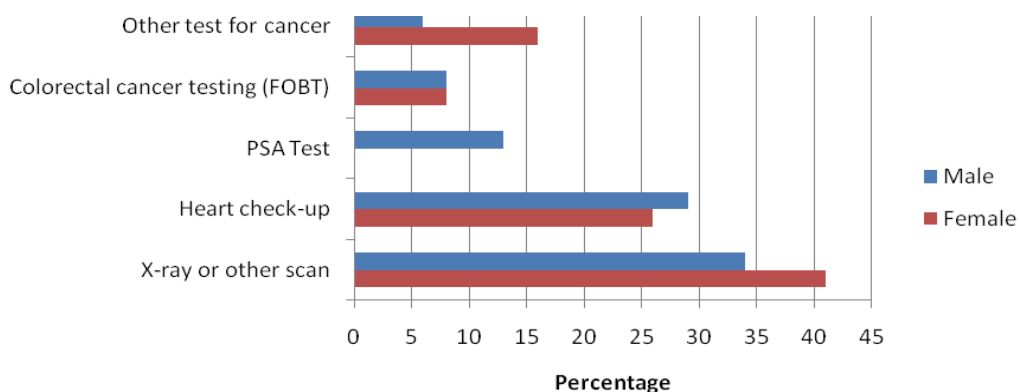


Source: Eurobarometer 2007

1.5.6 Preventative Health

Different patterns emerge between men and women in terms of engaging in other health checks (scans, heart tests and cancer checks Fig. 1.5.17). Men are more likely to have had a heart check-up (29% vs 26% of women), but less likely to avail themselves of x-ray or other scans (34% vs 41% of women). Whilst colorectal cancer testing is similar between men and women at 8%, men are far less likely to undertake other tests for cancer (6% vs 16% of women).

Fig. 1.5.17 Have you received any of the following tests in the last 12 months? EU25, by sex and test type

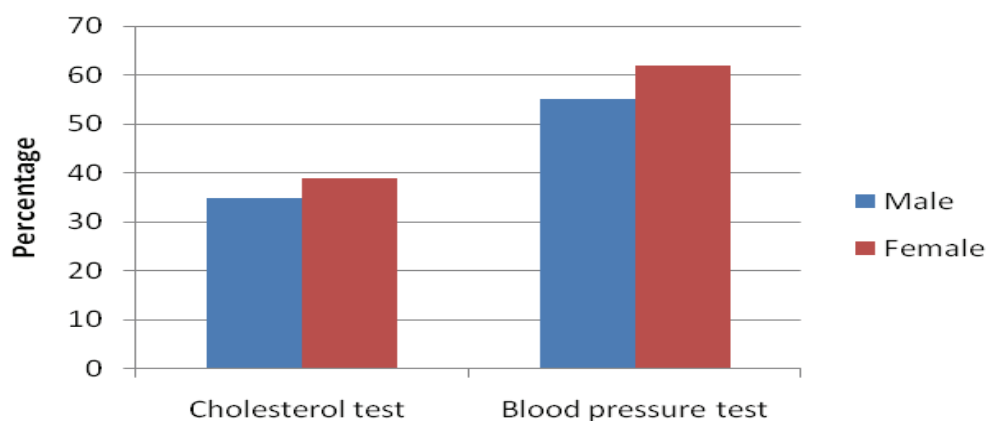


Source: Eurobarometer 2007

Men are less likely than women to have had their blood pressure checked in the past year (55% vs 62% of women) or to have had a cholesterol screening test (35% vs 39% of women). Overall, the testing rates for blood pressure range

from 70% or above in Luxembourg, Estonia and Portugal to 46% in Ireland, with just over half of blood pressure checks being carried out upon doctors' initiatives. Among those with hypertension, similar proportions of men (48%) and women (50%) had recently made lifestyle adjustments with the aim of reducing their blood pressure. The overall rates of reported cholesterol testing were highest in Luxembourg (57%), Portugal (56%) and Greece (55%) and lowest in Romania (21%) and Bulgaria (23%). The main initiative for cholesterol testing comes from doctors (20%) followed by patients themselves (13%) and screening programmes (5%). Some 13% of respondents reported having changed their lifestyle in order to lower their blood cholesterol²².

Fig. 1.5.18 Percentage receiving blood pressure and cholesterol testing in the last 12 months by sex, EU27

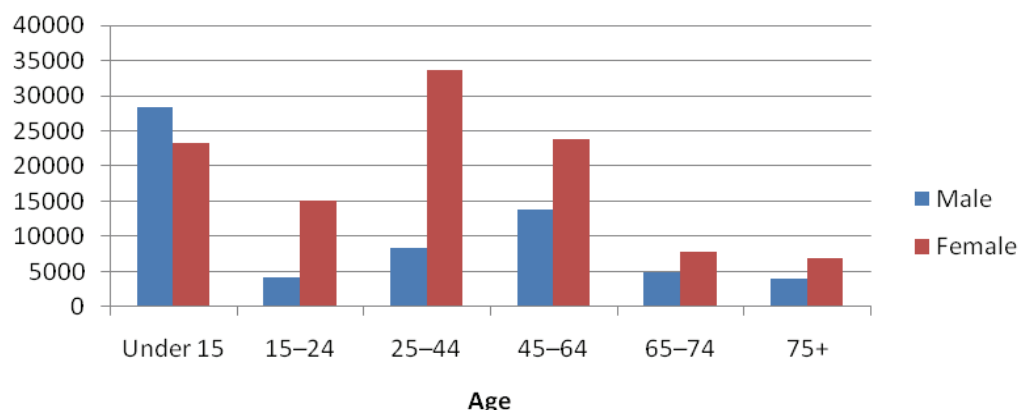


Source: Eurobarometer 2007

Data from the US suggests that, from the age of 15 upwards, women are more likely than men to avail of preventive healthcare services from primary care specialists (Fig. 1.5.19 – Woodwell & Cherry, 2002). Whilst this differential can partially be explained by reproductive health and antenatal visits in the peak years of female fertility between 15 and 44, after this the rate of visits for preventive healthcare remains much higher for women than for men (54.8 visits per 100 females per year compared to 34.6 visits per 100 males per year (ibid).

²² It is not possible to isolate respondents with high cholesterol from the survey data

Fig. 1.5.19 Number of preventive care office visits, United States, by age and sex, 2005



Source: Cherry DK & Woodwell DA. National Ambulatory Medical Care Survey (NAMCS): 2005 Summary. National Center for Health Statistics, 2007, <http://www.cdc.gov/nchs/data/ad/ad387.pdf>. Accessed February 2011

1.5.6.1 Accessing Health Information

Poorer knowledge of symptoms of ill health has been associated with men delaying to seek help from a medical practitioner upon first noticing symptoms. For example, knowledge of cancer warning signs is poorer among men than among women (Wardle et al., 2001; Evans, 2005); whilst men are also less likely than women to be aware of cancer risk factors or to consider themselves to be at risk from cancer (McCaffrey et al., 2003). Evans et al., (2005) propose that lower levels of awareness of male-only cancers may reflect the lower levels of publicity about men's cancers, citing evidence (Katz et al., 2004) to show that media coverage of prostate cancer and colorectal cancer is one-third of that devoted to breast cancer. In the context of delayed help-seeking for chest pain, White and Johnson (2000 p540) stress the importance of addressing the 'knowledge deficit' that men have in relation to their own bodies, and their apparent inability to recognize pain as being potentially of cardiac origin.

There have been few evaluations conducted around the effectiveness of existing health information targeted at men. Meredith et al., (1995) reviewed from the patient's perspective, the perceived strengths and weaknesses of existing leaflets and fact sheets on prostatectomy given by surgeons to patients. Patients reported a number of shortcomings. These included;

- a lack of uniformity in the form and content of information given

- that certain topics, which were perceived as relevant to the patient, were omitted
- that the terminology used was not clear
- that patients' experiences were at odds with what they were told by their surgeons. For example, only 5 of the 25 different fact sheets being used referred to possible changes in sexual sensation after transurethral resection of the prostate, stating that patients would feel no change. However, 35% of patients did in fact report a change, and this was a cause of concern or worry to 12% of patients.

The authors concluded that there is much scope for improving the standard of printed information given to patients undergoing prostatectomy.

There are many potential advantages of using printed health education materials. These include:

- They can be constructed to enhance understanding and memory.
- Their content can be written to cover all points considered to be of importance by the author.
- They can serve as permanent records of information (Ley, 1988 in Webber et al., 2001).

However in order to make these materials attractive and usable for members of the public the reader must be the primary concern, answers to questions must be found easily (Kools, 2007), health messages must be consistent (Cock & Holden, 2008), and there must be different levels of complexity, tailored to attract different socio-economic groups and meet different literacy levels (Jadad & Meryn, 2005). There are attempts to get more health information out to men for example, the Malehealth website (www.malehealth.co.uk), which is run through the Men's Health Forum in England has proved to be very popular. The Haynes Manuals and mini-manuals²³ approach adopted by the Men's Health Forum provides a very useful template for the delivery of targeted health information to men. The European Men's Health Forum has established a question and answer site in 3 languages²⁴ for men who have problems with their prostate.

²³ <http://www.menshealthforum.org.uk/mini-manuals/19009-mens-health-forum-mini-manuals> accessed 17th Dec 2010

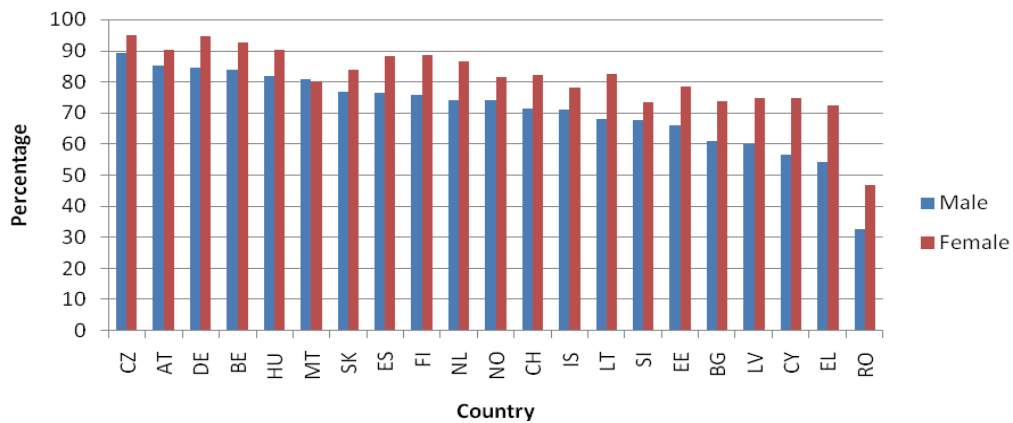
²⁴ <http://www.yourprostate.eu/> accessed 17th Dec 2010

1.5.7 Men's usage of primary health services

1.5.7.1 Consultation rates and patterns

Across Europe, men access primary care services less frequently than women do, with this sex-differences gap ranging from approximately 5 percentage points in the Czech Republic and Austria to approximately 18 percentage points in Cyprus and Greece (see Fig. 1.5.13). There are also considerable variations between men in different countries, with the percentage of men attending a doctor within the past 12 months ranging from 89.2% in the Czech Republic to just 32.6% in Romania.

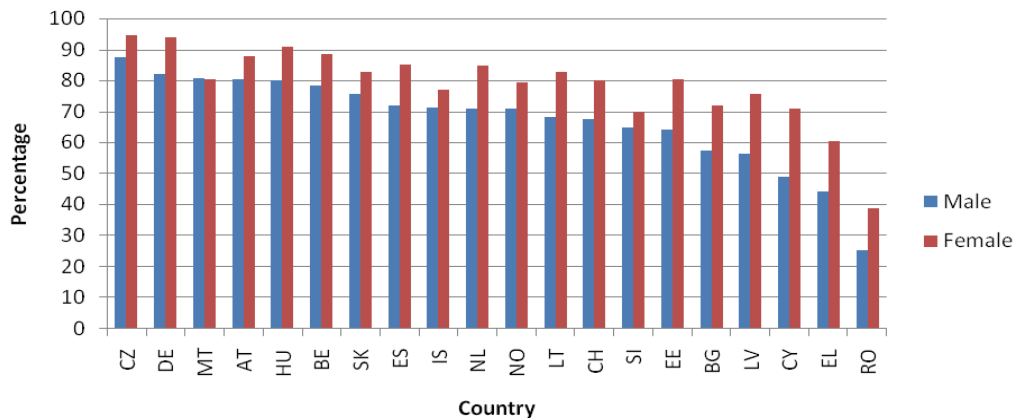
Fig. 1.5.20 Percentage consulting a medical doctor during the past 12 months, by sex and country, 2010



Source: Eurostat hlth_co_doc

Usage of health services is strongly associated with unemployment/ economic status (Fig. 1.5.21 & Fig. 1.5.22 – economically 'active' or 'inactive'). Across all countries, consultation rates are higher among unemployed (economically inactive) than employed (economically inactive) men.

Fig. 1.5.21 Percentage consulting a medical doctor during the past 12 months, by sex, country, and active population, 2004



Source: Eurostat hlth_co_doc

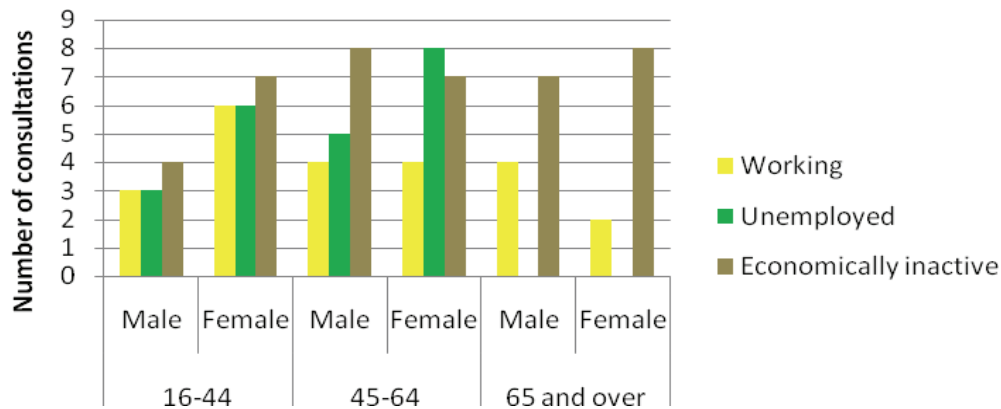
Fig. 1.5.22 Percentage consulting a medical doctor during the past 12 months by sex, country and inactive population, 2004



Source: Eurostat hlth_co_doc

This pattern is confirmed by UK data which indicates that men who are unemployed or in manual work tend to attend a doctor more often than those engaged in managerial or professional occupations (Office for National Statistics, 2004). The same report highlighted that those men who were economically inactive were over twice as likely to have consulted a doctor in the past two weeks as those who were working (see Fig. 1.5.23).

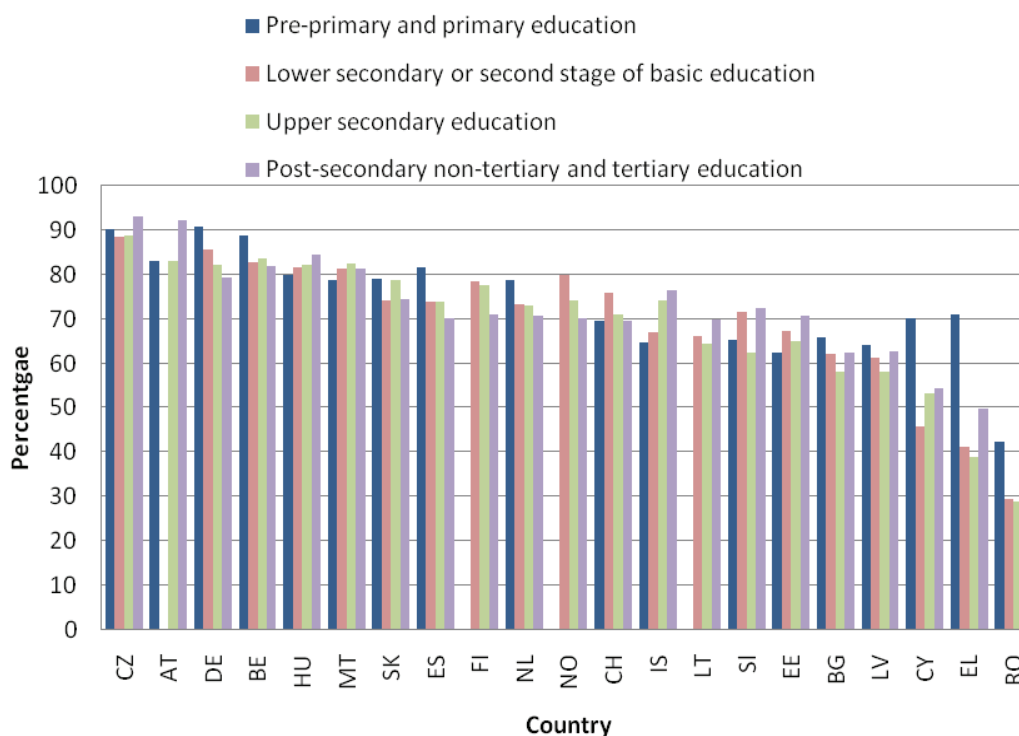
Fig. 1.5.23: Average number of consultations per person per year, by sex, age and economic activity status, England and Wales



Source: Office for National Statistics, 2004

There is a mixed association between usage of primary care services and education in across Member States (Fig. 1.5.24). In Cyprus and Greece, for example, consultation rates with a GP are much higher among less educated men. Conversely, in countries such as the Czech Republic, Austria, Iceland and Estonia, the highest consultation rates are among more well educated men.

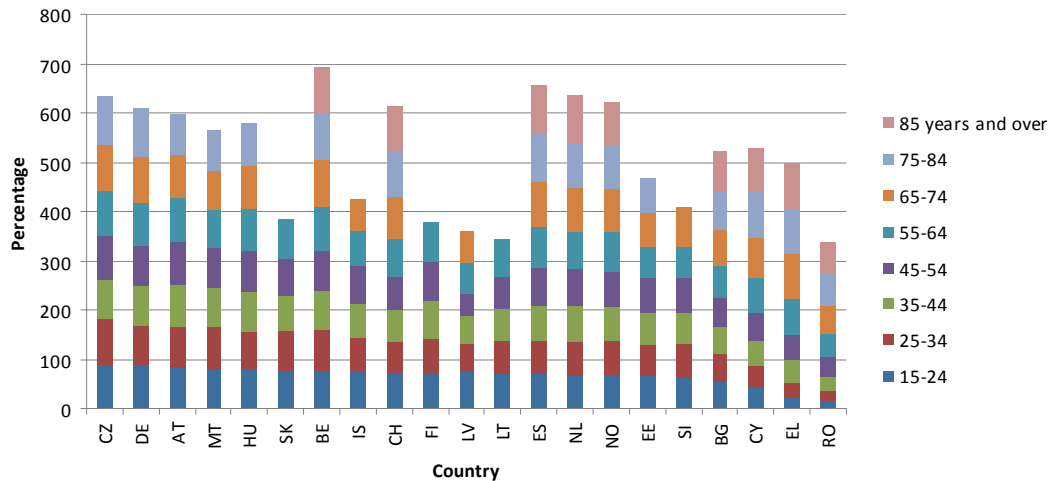
Fig. 1.5.24 Percentage of males consulting with a medical doctor during the past 12 months, by education and country, 2004



Source: Eurostat hlth_co_doce

As expected, usage of primary care services among men increases with age (Fig. 1.5.25).

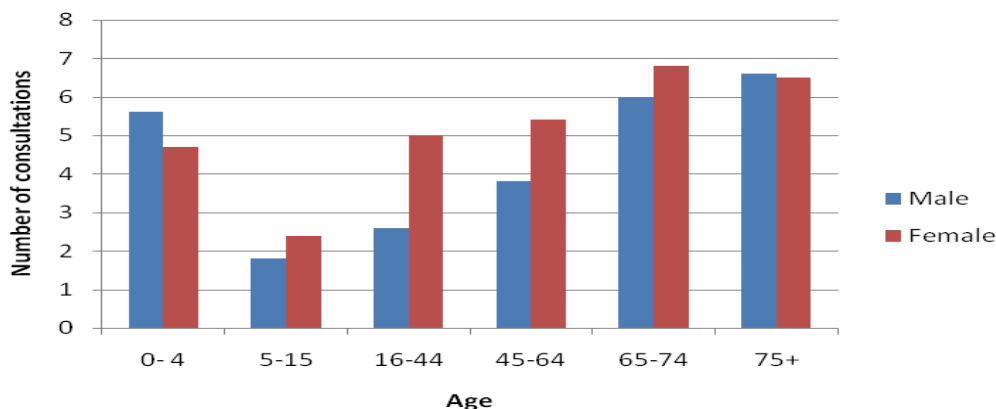
Fig. 1.5.25 Percentage of males consulting with a medical doctor during the past 12 months, by age and country, 2004



Source: Eurostat hlth_co_doc

In the context of age, data from the UK indicates that, in early adulthood, men visit the doctor, on average, half as much as women do, reaching the same rate as women do only in later life (Office for National Statistics, 2004 – see Fig. 1.5.18). However, this data does not specify the reasons for these visits nor whether there is delay in seeking help that might impact on treatment options and patient outcomes (White & Banks, 2008). When GP consultation data is mapped against in-patient data, using the same age groupings, men’s increase in general practice services in later years is mirrored by a similar increase in the need for hospitalisation.

Fig. 1.5.26: Average number of general practice consultations per person per year, by sex and age, England and Wales 2003



Source: Office for National Statistics, 2006

A Danish Study that was based on 35.8 million GP contacts and 1.2 million hospitalisations in 2005 demonstrated an overall pattern among men of lower contact rates with GPs but higher hospitalisation and mortality rates (Juel & Christensen, 2007). This, in the authors view, is consistent with the hypothesis that men react later than women in seeking help for severe symptoms, resulting in higher rates of hospitalisations among men for the causative condition.

The proportionally greater use of primary care services by women in the early years reflects the provision of antenatal care, contraception and screening services that are more likely to habituate women into regular contact with health services. The general absence of male-targeted health care programmes hinders the surveillance capability for men's health problems and men's ability to identify as participants in health care.

1.5.7.2 Men's 'under-usage' of primary care services?

Previous studies have suggested that women's higher use of health services may be due to higher levels of health awareness, and the propensity by women to take account of a wider range of health information (Parslow et al., 2004). It has also been proposed that women have greater awareness of somatic symptoms, and are more likely to take account of and act on non-life-threatening illnesses (ibid). Nevertheless, Parslow et al., (2004) also found no difference in how men and women identified a need for formal health care at similar levels of self-assessed ill-health with other studies highlighting that patients' propensity to report ill-health and to access health services is influenced primarily by severity of symptoms, condition type and socio-economic status, rather than any generalised excess of ill-health reporting or help-seeking on the part of women (Macintyre et al., 1999; Hunt et al., 1999; Adamson et al., 2003). Whilst acknowledging that women self-report poorer health and access health services more frequently than men, Parslow et al., (2004) propose that this is because women's self-ratings of their health are more informed and they access services at a level that is consistent with their recognition of existing or potential health problems in their self-assessments. Men may be less informed about their health, and consequently less likely to act by accessing services for existing or potential health problems.

1.5.7.3 Barriers within health services

A range of factors have been identified at a service level that can be described as barriers to men's more frequent or more prompt use of health services, particularly primary care services, such as weight loss groups, smoking cessation services, anger management groups etc as well as access to family doctors (Leishman & Dalziel, 2003; White, 2001; Wilkins, 2005; Richardson, 2004). The reasons for such difficulties for men include cost of services, only being available during traditional working hours, lack of flexibility in many men's working days, excessive delays for appointments, long waits for consultations and over-running clinics, rushed consultations, a perception that GP waiting rooms and other services (i.e. many weight loss groups) are designed around the needs of women, a lack of understanding of the process of making appointments and negotiating with female receptionists, and lacking the vocabulary required to discuss sensitive issues such as depression or erectile dysfunction. Conversely, the provision of services that have been found to be more effective are those that offer flexible opening hours, longer consultation times, individualised and male-specific health assessments and the provision of lifestyle and behaviour modification programmes (Piper, 1997; Leishman & Dalziel, 2003). The importance of doctor-male patient communication has also been highlighted (Poulton, 1996; Aoun & Johnson, 2002; Dubé et al., 2005). For example, in the context of prostate cancer screening, Illic et al., (2005) argue that promoting a shared approach to decision making may lead to improved relationships between doctors and male patients.

There is considerable evidence to suggest that men have difficulties in seeking help for an emotional or mental health problem (see Mental Health Section 2.5). For example, in an Irish study of male patients recruited from general practices, three out of four men reported adopting strategies of 'avoidance' or 'silence' in the way that they managed themselves through an emotional or mental health issue (Richardson, 2004). It has been proposed that mental and emotional health issues can pose a threat to a man's masculinity and status, as evidenced by the way many men conceal symptoms, avoid seeking help and rely on more acceptable male outlets such as alcohol abuse or aggression, to deal with an emotional or mental health issue (Courtenay, 2000; Moller-Leimkuhler, 2002). This can be compounded by a tendency towards diagnoses of depression being based upon the female presentation of signs and symptoms (Brownhill et al., 2005).

In the context of unplanned pregnancies and the rising number of sexually transmitted infections (see Section 2.7), there is also an obvious need for increasing men's access to sexual health services. This has been hampered by the majority of policy and practice in the area of reproductive and sexual health having been targeted primarily at women (Yamey, 1999). Previous studies have identified men as reluctant consumers of sexual health services, in part as a result of men's general avoidance of health seeking behaviour, but also due to fear of what might be found and the potential for negative judgements and/or lack of confidentiality (Forrest, 2001; Marcell at al., 2003). White (2004) stresses the importance of integrating gender awareness into the training curricula for all public health professionals, so that health services become more accommodating of men and responsive to their needs.

1.5.8 Masculinity and help-seeking

A number of studies have suggested that men may be less likely than women to acknowledge illness or to seek help when sick (O'Brien at al., 2005; Addis and Mahalik, 2003). This may explain why many men appear to legitimise health service usage, only when a perceived threshold of ill health has been exceeded (Addis & Mahalik, 2003.) There is also a tendency amongst men to play down symptoms or to view potentially serious symptoms as simply signs of growing old (Pinnock at al., 1998; Aoun & Johnson, 2002). Health is often socially constructed as a feminine concern and men therefore have to present as if they are unconcerned about their health if they wish to publicly sustain a 'real' (hegemonic) male identity. However, as good citizens, men are continually exhorted to take responsibility for maintaining a healthy lifestyle and to show care about well-being. This leads to a situation where men are caught between two differing positions in how they 'do health'; what Robertson (2007) terms the "don't care/should care" dilemma.

Fear has also been identified as a reason why many men fail to access primary health care services, and this may be an even greater issue in the context of mental and sexual health services (Gregoire, 1999; Doyal, 2001; North Eastern Health Board, 2001). Moynihan (1998) notes the irony of 'health' on the one hand being inextricably linked with the image of 'the perfect man', strong and in control, while, on the other hand, the whole illness process inevitably threatens such a construction of masculinity. In this context, fear surrounding the potential loss of masculinity may result in a façade of control and stoicism, instead of honesty about reporting symptoms and accepting interventions, or

openness about feelings and insecurities associated with particular illnesses. For example, White and Johnson (2000) reported that men with chest pain worried about being branded as a 'fraud' through calling for help unnecessarily. O'Brien et al., (2005) found that despite, on the one hand, being a threat to masculinity, help-seeking was more quickly embraced by the men in their study when it was perceived as a means to preserve or restore another, more valued, enactment of masculinity – for example among men in the fire service who saw health as instrumental in being able to fulfil their role as fire fighters.

Bonhomme (2004) argues that one of the key challenges facing men is to reverse the perception that being sick or going to the doctor somehow represents failure or personal weakness, and to portray help seeking as a responsible and 'manly' choice. Banks (2004) stresses the importance of guiding health professionals away from stereotypical notions that disadvantage men and discourage men from using services, e.g. that men should 'handle' their pain or that they should be 'brave' when faced with distressing news about their health. He also states that health and social care professionals should be trained and encouraged to discuss with parents the importance of allowing and enabling their sons to develop the skills of "emotional literacy".

1.5.9 Well man clinics and community-based health initiatives for men

The establishment of 'well man' clinics in the 1980's, particularly in the UK, were designed to entice more men to access primary care, but, in the main, have been found to be of limited benefit. The main criticism has been that men who present for health screenings tend to be older, wealthier, more likely to have dependents, to routinely use health services and to have attended primary care in the preceding two years (Greenlick et al., 1979). Conversely, the groups most in need of such services tend to be the least likely to attend. The more successful well man clinics have been those that offer flexible opening hours, longer consultation times, at sites that are separate from primary care, and offer individualized and male-specific health assessments (Piper, 1997; Stanley, 2001). Other characteristics of successful clinics include the use of targeted advertising, the provision of personalized letters of invitation to prospective male patients, the provision of lifestyle and behaviour modification programmes, and the inclusion of a comprehensive referral system (Leishman & Dalziel, 2003).

In response to the reluctance of some men to access more conventional health services, there have been increasing attempts to develop community based services that specifically target men. In this context of bringing health services to men, pubs (Stanley, 2001), sports clubs (McKinlay, 2005), schools (Dirckze, 2000) and other settings (e.g. work environments, youth centres, places of worship and barber shops; (White et al., 2008) have been identified as worthwhile community settings in which to target outreach primary care services and preventative healthcare to those men who may be less likely to use more conventional services. For example, poorer, ethnic minority men are significantly more likely to participate in health screenings when delivered in a community setting (Loeb, 2004). McKinlay (2005) stresses the important role that community health nurses can serve in delivering out-reach services to men and in supporting community-based men's health initiatives. In Ireland, the operation of mobile health units in the context of the Construction Workers Health Trust have proven to be quite successful, whereby workers can access a 'heart health' assessment or cancer awareness programme on-site, that has the support of both management and unions, that is free to the worker (subject to a nominal subscription) and does not require official time off from work (see Department of Health & Children, 2008). The establishment of nurse-led walk-in centres in the UK in the late 1990s have been found to be particularly attractive to young men (Salisbury et al., 2002).

The key lessons learnt from one of the largest community-based men's health initiatives to date (the Bradford and Airedale Health of Men Initiative, whose work was captured in the book Conrad & White, 2007), are: that men do care about their health; men are more likely to avail of a health check if given a medical reason or if a specific appointment is made for them; men like services that are easily accessible and confidential; health screenings allied to longer consultation times enable men time to talk in confidence about a wider range of health issues; it may take some time for such services to become established – credibility builds up as 'word of mouth' support grows; such services benefit from the development of male-oriented resources and the up-skilling of practitioners involved; and the provision of a team with a range of expertise enables a broader range of activities to be supported. The Preston Men's Health Project (Kierans et al., 2007) stresses that a key objective of outreach services for men must be to act as a conduit to formal services so that there is a sustainable mechanism for maintaining contact between health services and men. Targeting men's health in leisure time has been successfully achieved

through associations with professional sports teams. The Premier Football League Health initiative²⁵ for example is a unique £1.68m programme funded by the UK New Football Pools, through the Football Foundation in which Premier League football clubs help to improve the state of men's health in deprived areas. A plethora of innovative projects exist: Tottenham Hotspur (Spurs) go into schools and target fathers of children in Enfield - in the bottom eight per cent most income deprived in the country and bottom 15 per cent for unemployment. The project promotes knowledge of nutrition, oral health and physical activity and involves cooking sessions so the dads can put their learning into practice and improve their social skills and improve family cohesion. Bolton Wanderers target men who are unemployed, on low-income or young and ex-offenders. They seek to help men with mental health problems. Bolton has high levels of unemployment which can often lead to mental illness. The Leeds Rhinos Rugby League club in partnership with the Centre for Men's Health, Leeds Metropolitan University ran a season long campaign called 'Tackling Men's Health'. This was sponsored by the Department of Health Regional Office for the Yorkshire & Humber district as part of the national 'Change 4 Life' campaign. At the ground on match days free health checks, a weight loss group, a smoking cessation group and health 'MOT's' were available before the matches start. This may not be seen as health care as we currently know it, but if we truly want to see change in the population's health then perhaps we also need to see some more radical thinking in the way we deliver health services (White & Witty, 2009, Witty & White, 2010).

1.5.10 Use of Pharmacies

It is well established that men tend not to use pharmacies, despite their potential as a source of advice, information and self-treatment (Banks, 2001). Data from the US indicates that women have a higher consumption of prescription medications. Indeed, a closer examination of prescription trends data that compares men and women aged 18 to 44 years reveals that women have a higher rate of prescription utilisation for every category of medication surveyed, despite a proven higher incidence of premature mortality among men (White, 2008).

²⁵ <http://www.premierleague.com/page/Headlines/0,,12306~1568917,00.html> last accessed 8/12/10

1.5.11 Men's use of the internet and the problem of counterfeit medications

There are a worrying number of men who are failing to go for medical assistance or are turning to the internet for medication. This both removes the possibility of diagnosis of the underlying problem and also opens them up to the risk of potentially dangerous counterfeit²⁶ drugs. Growth of the counterfeit medication market is attributable in large part to phosphodiesterase type 5 inhibitor (PDE5i) medications for erectile dysfunction (ED), which account for the bulk of all counterfeit pharmaceutical product seizures. Jackson et al., (2010) estimate that up to 2.5 million men in Europe are exposed to illicit sildenafil, which would suggest that there may be as many illegal as legal users of the drug. In recent years, there has been an alarming increase counterfeit seizures in the European Union (European Commission Taxation and Customs Union, 2007), with counterfeits becoming increasingly difficult to distinguish from their genuine counterparts (ibid).

There are a number of dangers and risks associated with self-prescribing counterfeit drugs from the Internet (see Jackson et al., 2010). In the first instance, counterfeit drugs may contain excessive or ineffective levels of active ingredients, contaminants, or inactive or dangerous ingredients. This can result in serious adverse consequences for health. Secondly, dosage variability and dosage mislabelling may be associated with accidental overdose. Thirdly, because patients receive no treatment benefit from inert ingredients, they remain untreated and may be discouraged from seeking further help in the belief that medication does not work for them. ED is also known to play a 'sentinel' role in predicting CHD and stroke (Ponholzer et al., 2005) and can also be symptomatic of other illnesses such as diabetes, hypertension and alcohol misuse (Seftel, et al., 2004). Men who self-medicate for ED and who avoid a visit to their physician to discuss the problem, also lose an opportunity to detect and address potential underlying conditions.

1.5.12 References

Addis M, Mahalik JR (2003) Men, masculinity, and the contexts of help seeking. *American Psychologist* 58(1): 5-14

²⁶ The World Health Organization (WHO) defines counterfeit medicines as those that "are deliberately and fraudulently mislabelled with respect to identity or source: their quality is unpredictable as they may contain the wrong amount of active ingredients, wrong ingredients or no active ingredients...[they are] manufactured in clandestine laboratories with no possibility of control" (WHO, 2008)

- Adamson J, Ben-Shlomo Y, Chaturvedi N et al., (2003) Ethnicity, socio-economic position and gender: do they affect health care seeking behaviour? *Soc Sc & Med*: 57:895-904
- Alber J, Kohler U (2004) Health and care in an enlarged Europe. Dublin, European Foundation for the improvement of Living and Working Conditions
- Aoun S, Johnson L (2002) Men's health promotion by General Practitioners in a workplace setting. *The Australian Journal of Rural Health* 10(6):268-272
- Baker P (2004) Men's Health Policy. *The journal of the royal society for the promotion of health* 124(5):205-6
- Balabanova D, McKee M (2002) Understanding informal payments for health care: The example of Bulgaria. *Health Policy* 62(3):243-273
- Banks I (2001) No man's land: men, illness and the NHS. *BMJ* 323(7320):1056-60.
- Banks I (2004) New models of providing men with health care. *Journal of Men's Health & Gender* 1(2-3):155-158
- Bonhomme J (2004) Cultural and Attitudinal Barriers to Men's Participation in Health Care. Conference Presentation, National Men's Health Conference, Arlington, Virginia, May
- Brownhill S, Wilhelm K, Barclay L et al., (2005) 'Big build': hidden depression in men. *Australian and New Zealand Journal of Psychiatry* 39:921-31
- Cock ML, Holden CA (2008) Facilitating community action during an awareness week to raise the profile of men's health issues. *Journal of Men's Health* 5:203-208
- Cherry DK, Woodwell DA, (2007) National Ambulatory Medical Care Survey: 2005 Summary. National Center for Health Statistics Available at: <http://www.cdc.gov/nchs/data/ad/ad387.pdf> last accessed 7/02/11
- Conrad D, White A (2007) Men's Health: how to do it. Oxford, Radcliffe Publishing
- Courtenay WH (2000) Engendering health: a social constructionist examination of men's health beliefs and behaviours. *Psychology of men and masculinity* 1(1):4-15
- Dirckze D (2000) How to persuade men to visit the surgery. *Practice Nurse* 20:266-268
- Doyal L (2001). Sex, gender, and health: the need for a new approach. *BMJ* 323:1061-1063
- Dubé CE, Fuller BK, Rosen RK et al., (2005) Men's experiences of physical exams and cancer screening tests: a qualitative study. *Preventive Medicine* 40(6):628-635

- Ensor T (2004) Informal Payments for Health Care in Transition Economies. *Soc Sc & Med* 58:237-246
- Eurobarometer (2007) Health in the European Union. Special Eurobarometer 272e/Wave 66.2 – TNS Opinion and Social. Available at: http://ec.europa.eu/health/ph_publication/eb_health_en.pdf last accessed 24/11/10
- European Council (2006): Council Conclusions on Common values and principles in European Union Health Systems. Document (2006/C 146/01), published in the Official Journal of the European Union on 22 June 2006
- European Commission Taxation and Customs Union, 2007 A serious problem for everyone available at: http://ec.europa.eu/taxation_customs/customs/customs_controls/counterfeit_piracy/combating/index_en.htm last accessed 11/01/11
- Evans REC, Brotherstone H, Miles A et al., (2005) Gender differences in early detection of cancer. *Journal of Men's Health & Gender* 2:209-17
- Fletcher RJ, Higginbotham N (2002) Men's perceived health needs. *Journal of Health Psychology* 7(3):233-241
- Forrest K (2001) Men's reproductive and sexual health. *Journal of American College Health* 49(6):253-66
- Gaal P, McKee M (2005). Fee-for-service or donation? Hungarian perspectives on informal payment for health care. *Soc Sc & Med* 60(7):1445-1457
- Greenlick M, Bailey JW, Wild J et al., (1979) Characteristics of men most likely to respond to an invitation to be screened. *Am J Pub Health* 69:1011-1015
- Gregoire A (1999) Male Sexual Problems, *BMJ*, 318: 245-247
- Hunt K, Ford G, Harkins L et al., (1999) Are women more ready to consult than men? Gender differences in general practitioner consultation for common chronic conditions. *Journal of Health Services Research and Policy* 4:96-100
- Ilic D, Risbridger GP, Green S (2005) The informed man: Attitudes and information needs on prostate cancer screening. *The Journal of Men's Health & Gender* 2(4):414-420
- Jackson G, Arver S, Banks I at al., (2010) Counterfeit phosphodiesterase type 5 inhibitors pose significant safety risks *International Journal of Clinical Practice* 64(4):497-504
- Jadad AR, Meryn S (2005) The future of men's health: trends and opportunities to watch in the age of the Internet *Journal of Men's Health & Gender* 2(1):124-128

- Juel K, Christensen K (2005) Are men seeking help too late? Contacts to general practitioners and hospital admissions in Denmark 2005. *J Public Health* 30(1):111-113
- Katz ML, Sheridan S, Pignone M et al., (2004) Prostate and Colon Cancer Screening Messages in Popular Magazines *Journal of General Internal Medicine* 19(8):843–848
- Kierans C, Robertson S, Mair MD (2007) Formal health services in informal settings: findings from the Preston Men's Health Project. *Journal of men's health* 4(4): 440–447
- Kools M (2007) A focus on the usability of health education materials. *Patient Educ Couns* 65(3):275-6
- Leishman J, Dalziel A (2003) Taking action to improve the health of Scottish Men. *Men's Health Journal* 2(3):90-93
- Ley P (1998) *Communicating with patients: improving communication, satisfaction and compliance*. London, Chapman & Hall
- Liaropoulos L, Siskou O, Kaitelidou D et al., (2008) Informal payments in public hospitals in Greece. *Health Policy* 87(1):72-81
- Loeb S (2004) Older Men's Health: motivation, self-ratings and behaviours. *Nursing Research* 53(3):198-206
- Macintyre S, Ford G, Hunt K (1999) Do women 'over-report' morbidity? Men's and women's responses to structured prompting on a standard question on long standing illness. *Soc Sc & Med* (48):89-98
- Marcell A, Raine T, Eyre S (2003) Where does reproductive health fit into the lives of adolescent males? *Perspectives on Sexual and Reproductive Health* 35(4):180-6
- McCaffrey K, Wardle J, Waller J (2003) Knowledge, attitudes and behavioural intentions in relation to the early detection of colo-rectal cancer in the United Kingdom. *Pre Med* 36:525-535
- McKinlay E (2005) Men and health: a literature review. Available at [http://www.phac.health.govt.nz/moh.nsf/pagescm/766/\\$File/mens-health-literature-review.pdf](http://www.phac.health.govt.nz/moh.nsf/pagescm/766/$File/mens-health-literature-review.pdf) last accessed 26/11/10
- Meredith P, Emberton M, Wood C et al., (1995) Comparison of patients' needs for information on prostate surgery with printed materials provided by surgeons. *Qual Health Care* 4(1):18-23
- Moller-Leimkuhler AM (2002) Barriers to help seeking in men: a review of sociocultural and clinical literature with particular reference to depression. *Journal of Affective Disorders* 71:1-3, 1-9

- Morris S, Sutton M, Gravelle H (2005) Inequity and inequality in the use of health care in England: an empirical investigation. *Soc Sc & Med* 60:1251-1266
- Moynihan C (1998) Theories in health care and research. Theories of masculinity. *BMJ* 317: 1072-1075
- North Eastern Health Board (2001) Men Talking. Kells, Co Meath, Department of Public Health
- Office for National Statistics (2004) Living in Britain 2002. London, General Household Survey.
- Office for National Statistics (2006) Focus on Health. Basingstoke, Palgrave Macmillan.
- Parslow R, Jorm A, Christensen H et al., (2004) Gender differences in factors affecting use of health services: an analysis of a community study of middle-aged and older Australians. *Soc Sc & Med* 59:2121–2129
- Piper S (1997) The limitations of well men clinics for health education. *Nursing Standard* 11(30):47-49
- Pinnock C, O'Brien B, Marshall VR (1998) Older men's concerns about their urological health: A qualitative study. *Aust. NZ J Pub Hlth* 22(3):368-373
- Randall M, Barroso J (2002) Delayed pursuit of health care among HIV-positive gay men enrolled in a longitudinal research study. *J Assoc Nurses AIDS Care* 13:23-31
- Richardson N (2004) Getting Inside Men's Health. Kilkenny, Ireland, Health Promotion Department, South Eastern Health Board
- Robertson S (2007) Understanding Men and Health: Masculinities, Identity and Well-being. Buckingham, Open University Press
- Salisbury C, Chalder M, Manku et al., (2002) What is the role of walk-in centres in the NHS? *BMJ* 324:399-402
- Stanley A (2001) Pint and a check-up. *Comm Pract* 74:45-46
- Thomas S (2005) European primary care: a visionary report of the Dutch Health Council on primary health care in the European Union. [Dutch] *Nederlands Tijdschrift voor Geneeskunde* 149(20):1086-8
- Wardle J, Waller J, Brunswick N et al., (2001) Awareness of risk factors for cancer among British adults. *Public Health* 115:173-174
- White AK (2001) Report on the scoping study on men's health. London, The Department of Health
- White AK, Johnson M (2000) Men making sense of their chest pain - niggles, doubts and denials. *Journal of Clinical Nursing* 9(4):534-41

- White AK, Holmes M (2006) Patterns of mortality across 44 countries among men and women aged 15-44. *Journal of Men's Health & Gender* 3(2): 139-4
- White AK (2008) Men and the problem of help seeking. In Heidelbaugh J (Ed) *Clinical Men's Health: Evidence in Practice*. Philadelphia, Saunders Elsevier
- White AK, Banks I (2008) Men and Help Seeking In Kirby R, Carson C, White AK Kirby M, (Eds) *Men's Health*. 3rd Ed London, Informa Healthcare
- White AK, Witty K (2009) Men's under use of health services – finding alternative approaches *Journal of Men's Health* 6(2): 95–9.
- Witty K, White AK (2010) Tackling Men's Health intervention within a large sports stadium. *Journal of Men's Health* 7(3): 305
- Wilkins D (2005) Getting it sorted - identifying and implementing practical solutions to men's health. *Journal of Men's Health & Gender* 2(1): 13-16
- Williamson P, Robertson S (1999) Men's health: more than some of his parts. *Nursing Standard* 13(18): 20
- WHO (2009) Health in the European Union: Trends and analysis. Observatory Studies Series No 19. Available at:
http://www.euro.who.int/__data/assets/pdf_file/0003/98391/E93348.pdf last accessed 26/11/10
- Yamey G (1999) Sexual and reproductive health: what about boys and men? Education and service provision are the keys to increasing involvement. *BMJ* 319: 1315

Part 2

2.1 Health Status

2.1.1 Main Points

- Men generally identify themselves as having better health than women, though this may not accurately reflect their actual level of health and wellbeing.
- Life expectancy is lower for men across all the EU Member States, ranging from 66.3 years for men in Latvia (77.6 yrs for women) to 80 years for men in Iceland (82.2 yrs for women).
- There are more variations found between men's life expectancy between different countries and regions than between men and women's life expectancy.
- Men have nearly double the potential years of life lost as compared to women, with large differences also evident between the countries.
- For the EU27 it can be seen that the rate of death is higher for men across all age ranges, with 24% higher rate in the 0-14 year age range, 236% higher in the 15-44 age range, 210% higher in the 45-64 age range and a 50% higher rate of death in the over 65 age range
- The rate of premature death in men still far exceeds that for women, and is evident across the majority of disease states.
- Over 630,000 male deaths occur in working age men (15-64 years) as compared to 300,000 women.
- Infant mortality tends to be higher in boys.
- Cardiovascular disease is still the biggest cause of premature death, but this is rapidly being replaced by cancer.

2.1.2 Summary

Men report better health than women and have lower levels of self reported chronic morbidity, but their life expectancy remains lower across all the countries. The gap between male life expectancy across different countries and regions is more marked than that between males and females suggesting that men are more vulnerable to social circumstances. The biggest challenge facing men with regard to the mortality figures is in relation to their higher levels of premature death, with over 2.5 times more young men (aged 15-44 years) dying than young women across EU27. These deaths are also seen across

nearly the whole spectrum of those health conditions that could affect men and women equally as they are not sex-specific.

The burden of death appears to differ across the countries with those in Eastern Europe having higher rates of death as a result of cardiovascular disease, whereas the predominated cause of death in the West are due to cancer.

2.1.3 Introduction

Building on the understanding gained in Part 1 regarding the overall male population and the issues that are related to their lifestyles and preventable risk factors this section is focused on giving the broad overview of the health status of men as well as their levels of morbidity and mortality. This section provides a basis for Part 2, which covers the main health conditions affecting men.

The majority of the data presented in the report is shown as a comparison between men and women, this is inevitable. If only male data was presented the reader would not be able to determine if this was an issue that required a specific focus onto the health of men or whether a population wide approach would suffice. What is apparent from the data is that there are marked variations between men and women's health, but there are also major differences between men themselves based on where they live. In many cases the health impact of the social and economic circumstances men find themselves in are a far greater issue than exist between men and women (Saurel-Cubizolles et al., 2009).

The health gap between the new and the old EU members has been noted before (Zatoński et al., 2008), but the differences are not limited to these countries as regional variations within all the Member States show significant health disparities. A study on the impact of inequalities in Britain has identified an increasing gap between the most and least affluent that has been growing over the last decade and is now greater than it has been since the last great depression. Currently every 100 deaths in the most affluent areas are matched by 199 deaths in the least, with men showing nearly a 14 year difference in life expectancy between the rich and the poor in 2008 compared to just over 10 years in 1999 (Thomas, 2010).

However these issues should affect men and women equally and as can be seen from the changing life expectancies over time men seem to have been affected

more severely than women. In a similar way to the differences that are seen within life expectancy in Western European countries there seems to be a stronger association with how men respond to the social determinants of health and their reaction to their changing social position and personal circumstances. Within the Lisbon Strategy there is a recognition that for Europe to grow and flourish we must improve the health of our population, but to achieve this we must reduce inequities in health and the data seems to suggest that attention is needed to both address the differences between men and women and men themselves.

The analysis of the mortality data does give an indication of those conditions where men seem to be particularly vulnerable and a key observation is that the majority seem to fall within what could be classified as avoidable or deaths that are amenable to health interventions (Nolte & McKee, 2003). These are conditions where an alteration in either the risk factors that cause the problem or in the way the disease is managed would see a marked reduction in the mortality rates. With age and socioeconomic circumstances being such an important component in men's increased vulnerability it would appear that more concerted efforts to reduce men's preventable risk factors in their early life would have considerable effect on their overall health and wellbeing.

Taking action to prevent premature death is increasingly being seen as an essential aspect of public health policy, as Rajaratnam et al., (2010) notes:

“The prevention of premature adult death is just as important for global health policy as the improvement of child survival. Routine monitoring of adult mortality should be given much greater emphasis”

This should be seen as an investment as the costs of health promotion and disease prevention programs are easily made up for by the impact on the economy both through retention of an able workforce, but also the reduction of poverty (Marquez, 2005, pxxiii).

With the degree of premature mortality in men it is surprising that they seem to have high levels of satisfaction with their own health, as measured in the self perception scores. The reasons for this apparent anomaly may revolve around how the questionnaires are worded and the meaning of health being different between men and women (Rona et al., 2006). A further possibility is that these

differences may also be an indication that men have poorer perception of their own health status compared to women (Barreto & Figueiredo, 2009). It is also likely that though women live longer than men the quality of life and well-being they experience may not be always satisfactory (EIWH, 2006). Women suffer from a raft of conditions that do not necessarily become life threatening in their early years, which can lead to a clustering of health conditions and multi-morbidities that contribute to their poorer self perceptions of health.

Analysis of the impact of the fall of communism on Russian life expectancy also suggested that with worsening circumstances women are more likely to survive, but with poor health, and men are more likely to die prematurely (Andreev et al., 2003). This ties in with men tending to die from 'heavy impact diseases', that may be more quickly life-limiting leaving them with less time to suffer. In the more developed countries this is starting to see a reversal as preventative care and effective treatments may start to see a growth in the number of men with chronic morbidities and those conditions that are non-life threatening but which can cause a high level of burden on the individual and society as a whole. An example of this is the reduction of cardio-vascular deaths in the younger male throughout large sections of Western Europe (see section 2.2.4.1).

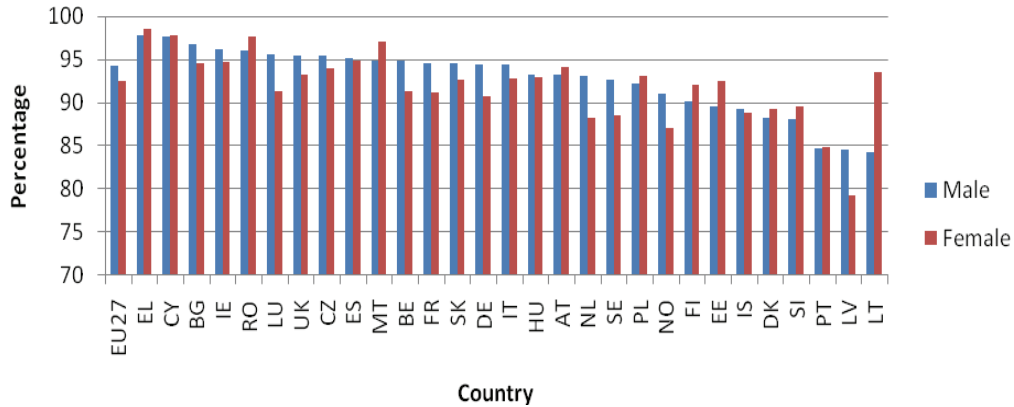
It is interesting to note that there may be a reversal of this trend when natural disasters (as opposed to major man made ones) occur. A study of life expectancy following natural disasters, such as drought, earthquake, flood, etc found that women's life expectancy dropped below that of men. This was found to be a complex issue related to men's skills and physical strength, but this is strongly associated with access to resources as the woman's socio-economic status is a principal factor in whether they survive (Neumayer & Plümper, 2007).

2.1.4 Self perceived health status

The data on self perception of health comes from the European Statistics of Income and Living Condition (EU-SILC) survey which was based on a sample of individuals from each country self categorising themselves as either having very good, good, fair, bad or very bad health. When the data for the whole population is taken into account there are some marked country, gender and age differences. The general pattern (Fig. 2.1.1) is that younger men tend to report a slightly higher level of good or very good health and lower levels of bad or very bad health (Fig. 2.1.2) than women, with the same for men in the 55-

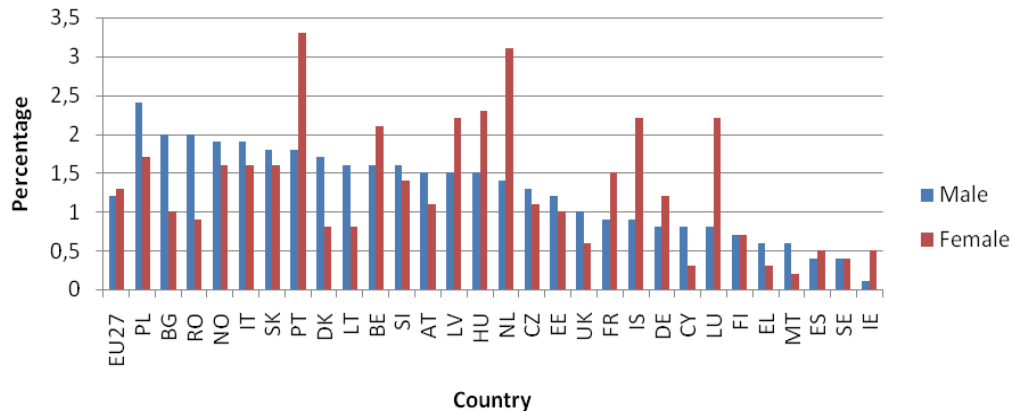
64 age bracket (Fig. 2.1.3 & Fig. 2.1.4). However these means do not capture the large variations that occur between countries with for example only 0.1% of young Irish men reporting poor health as compared to Portugal with 2.4%.

Fig. 2.1.1 Self perceived health – good and very good health, ages 15-24 years, by sex and country, 2008



Source: Eurostat hlth_silc_01

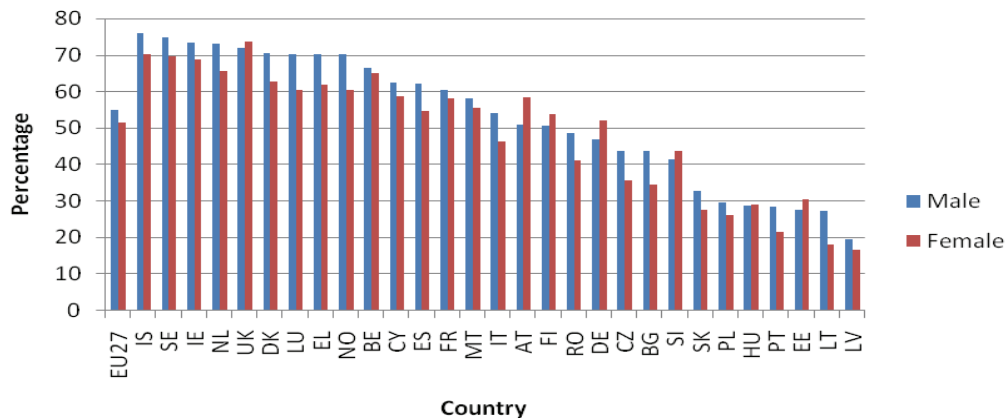
Fig. 2.1.2 Self perceived health – bad and very bad health, ages 15-24 years, by sex and country, 2008



Source: Eurostat hlth_silc_01

For those men who are reaching the end of their working lives we see a very different picture with only just over half of the men seeing themselves as being in good or very good health (Fig. 2.1.3). There are, however, some countries that still have relatively good health right through the working years, with Iceland and Sweden being notable in this respect.

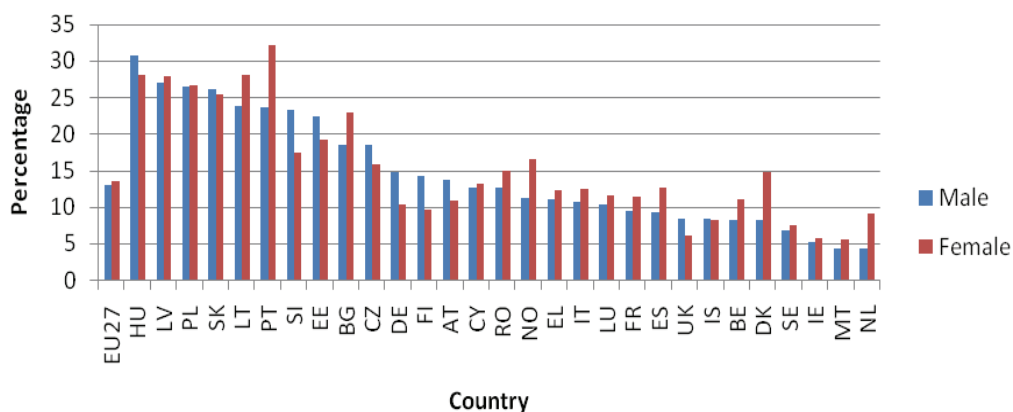
Fig. 2.1.3 Self perceived health – good and very good health, ages 55-64 years, by sex and country, 2008



Source: Eurostat hlth_silc_01

The number of men who classify themselves as having bad or very bad health has increased to nearly 13% by the age of 55-64 years (Fig. 2.1.4), but again wide variation exists with Hungary having over 30% of its male population describing themselves as having poor health as compared to the Netherlands where only 4.2% of men did so. In 8 of the 29 countries covered men have a higher proportion than women reporting poor health.

Fig. 2.1.4 Self perceived health – bad and very bad health, ages 55-64 years, by sex and country, 2008



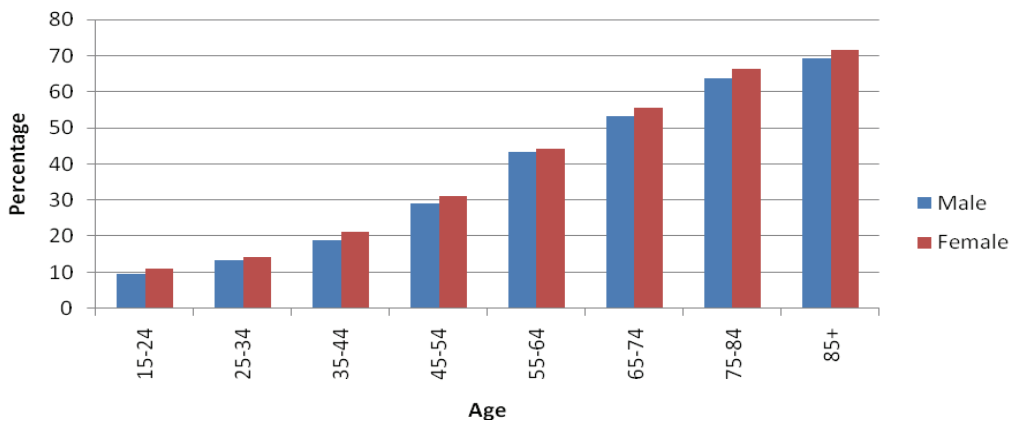
Source: Eurostat hlth_silc_01

It is evident that this data suggests that for young men who are starting out in the world of work and adulthood the majority see themselves as being in good health. This is good news, but it may also influence their willingness to listen to health promotion messages and to adopt and maintain a healthy lifestyle.

2.1.5 Self reported chronic morbidity

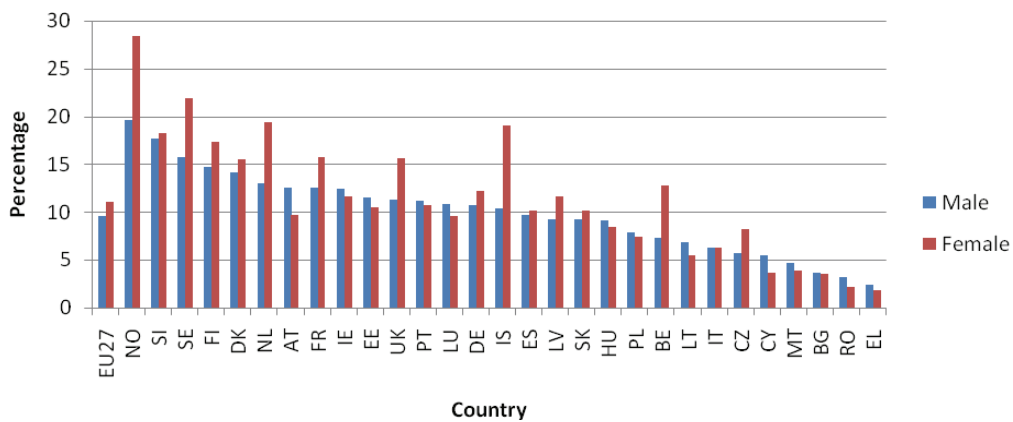
For all ages, 33% of women and 29% of men classify themselves as having a long term condition. The number of men reporting a long-term condition (Fig. 2.1.5) increases with age, rising from 9.6% of 15-24 year old men (Fig. 2.1.6), to 43% of 55-64 year old men (Fig. 2.1.7), and 64% of 75-84 year old men reporting having a long term condition. For young men, Norway stands out with nearly a fifth of their 15-24 year old men reporting a long standing condition as compared to 2% of young men in Greece (Fig. 2.1.6). In the 55-64 age range Italy has less than a half the number of the highest countries reporting long standing conditions (Fig. 2.1.7).

Fig. 2.1.5 Self perceived chronic health problems, by sex and age, EU27, 2008



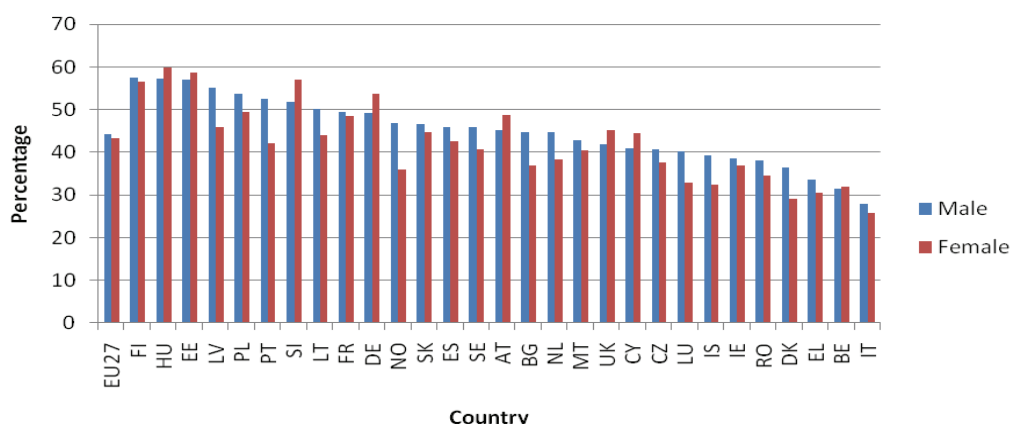
Source: Eurostat hlth_silc_05

Fig. 2.1.6 Self reported chronic (long-standing) illness or health problem, ages 15-24 years, by sex and country, 2008



Source: Eurostat hlth_silc_05

Fig. 2.1.7 Self reported chronic (long-standing) illness or health problem, ages 55-64 years, by sex and country, 2008



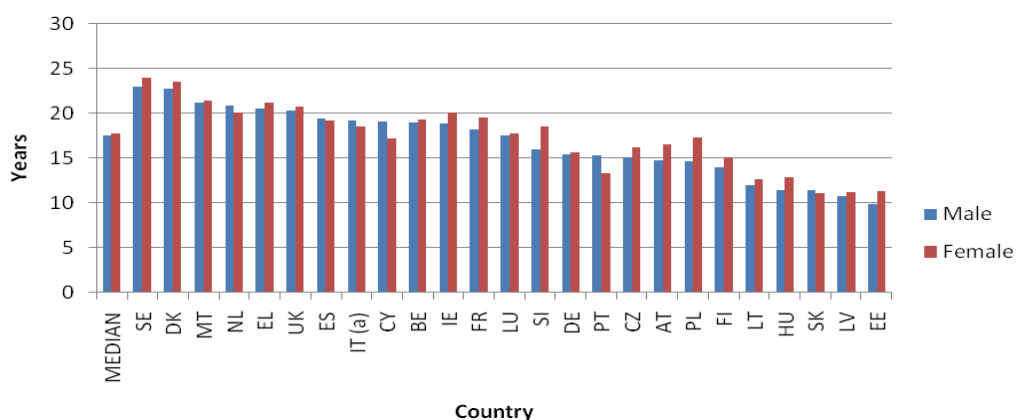
Source: Eurostat hlth_silc_05

2.1.6 Healthy Life Years (HLY)

Estimates of Healthy Life Years gives an indication of the degree of chronic or long term conditions within a population, those who enjoy more years of healthy life are experiencing fewer years with the burden of disease. These can be measured as years living without limitation in activity.

For the majority of countries men have very similar life expectancy without activity limitation to women, but with women having a longer life expectancy with severe activity limitation, means that they can expect to live more of their lives with chronic health difficulties as compared to men (Fig. 2.1.8).

Fig. 2.1.8 Life expectancy for 50 year olds without activity limitation, by sex and country, 2008



Source: <http://www.healthy-life-years.eu/> (a) estimated value

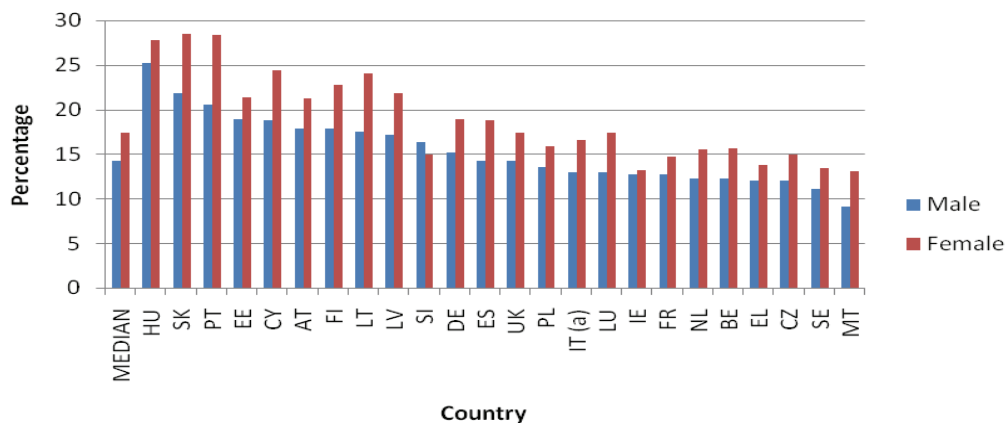
Differences still exist for men between countries with life expectancy without activity limitation having a similar pattern to overall life expectancy. From Fig. 2.1.8 it can be seen that there are five countries where men of 50 can enjoy over 20 more years of life without activity limitation, but in 5 countries men cannot expect to live more than 12 years past their 50th birthday before experiencing limitations. Within the data on severe limitation in activity (Fig. 2.1.9 & Fig. 2.1.10) Hungary stands out, with over a quarter of men over the age of 50 falling into this category and living less than 6 years after their 50th birthday.

Fig. 2.1.9 Life expectancy for 50 year olds with severe activity limitation, by sex and country, 2008



Source: <http://www.healthy-life-years.eu/> (a) Estimated value

Fig. 2.1.10 Percentage of 50 year olds with severe activity limitation, by sex and country, 2008

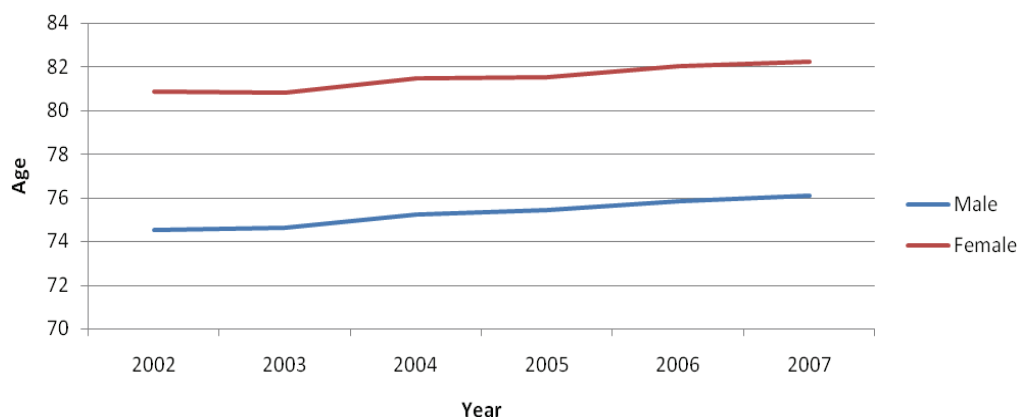


Source: <http://www.healthy-life-years.eu/> (a) Estimated value

2.1.7 Life expectancy

The average life expectancy for men in the EU is 76.1 years as compared to 82.2 years for women (6.1 years difference). Life expectancy of men and women across Europe as a whole is increasing and at a slightly faster rate for men than for women, with a 2.1% increase across the EU27 as compared to just over 1.6% increase in women between 2002 and 2007 (Fig. 2.1.11).

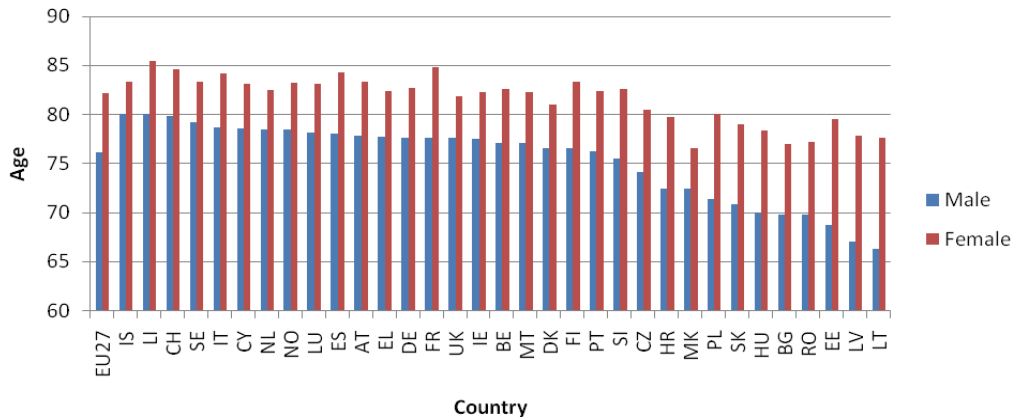
Fig. 2.1.11 Time trends in life expectancy, by sex, EU27, 2002-2007.



Source: Eurostat demo_mlexpec

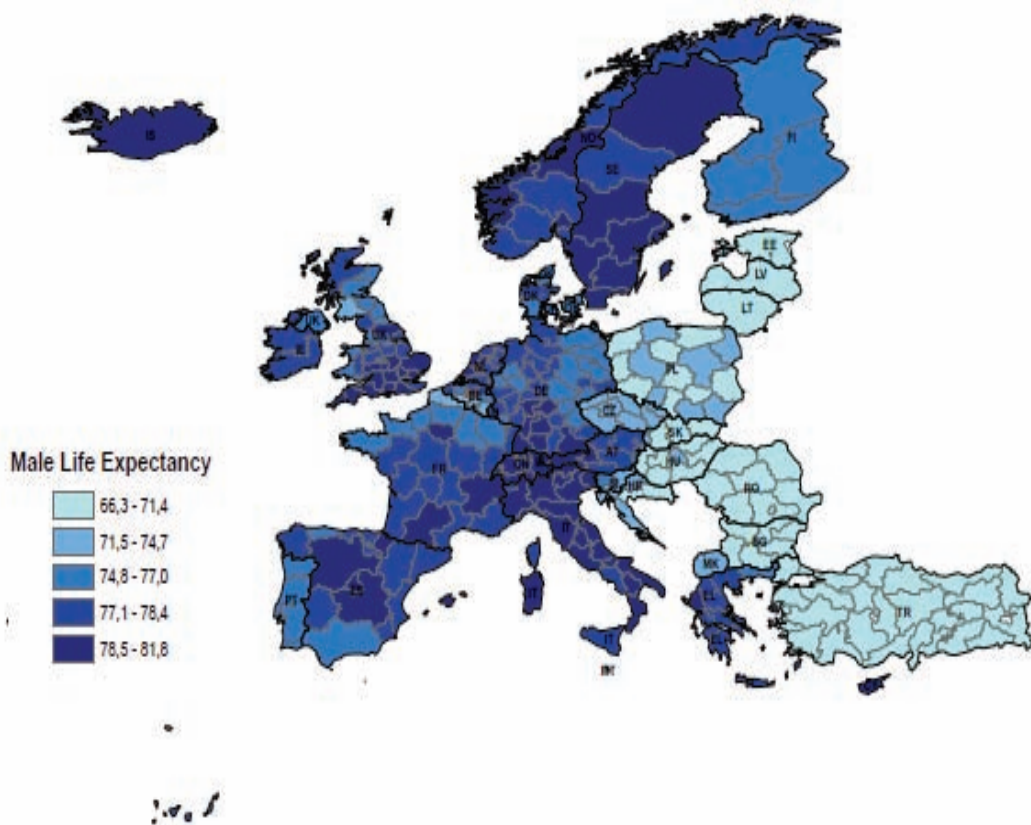
There are marked differences in life expectancy between countries with Latvia, having the lowest life expectancy for men 66.3 years (and also the biggest gap between the male and female population (11.3 years)) and Lichtenstein and Iceland, who both see their average male life expectancy at 80 years (Fig. 2.1.12). Iceland that the lowest gap between men and women with 3.3 years. It is noticeable that the difference between the highest and lowest life expectancy for men (13.7 years) is considerably more than the corresponding figure for women (7.8 years).

Fig. 2.1.12 Life expectancy at birth, by sex and country, latest year¹



Source: Eurostat demo_mlexpec. ¹ 2008 except BE, EU27, FR, IT, UK (2007)

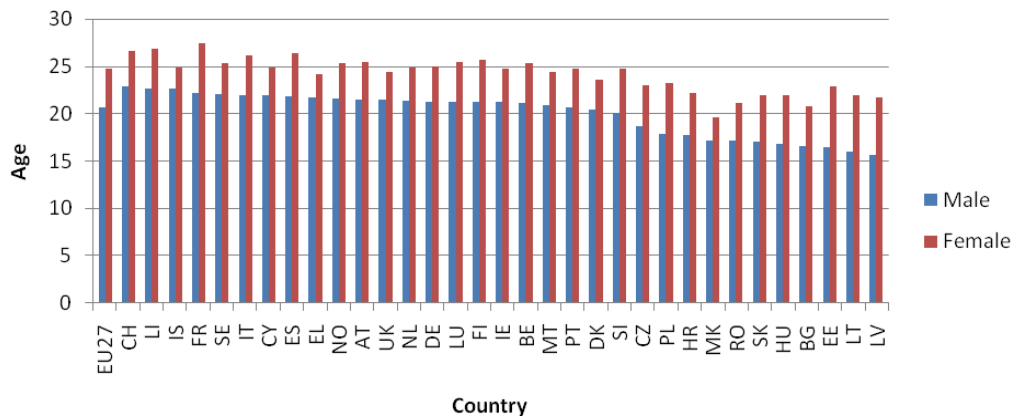
Map 2.1.1 Male life expectancy



With each passing year there is a change in the estimated life expectancy as each successful year of survival means that a longer life can be expected (Fig. 2.1.13). At the age of 60 the pattern is similar in that the Eastern European countries have the lowest life expectancy (Latvia 15.6 years, Lithuania 16

years) with the biggest gap between the sexes (6.1 years and 6 years respectively), whilst Switzerland, Lichtenstein, Iceland, France, Sweden and Italy can all expect to have another 22 years of life or more. At the age 60 a man in Latvia could expect to live to 76 years as compared to a similar aged man in Switzerland living to 82 years – a 6 year difference.

Fig. 2.1.13 Life expectancy from aged 60 years, by sex and country, latest year¹



Source: Eurostat demo_mlexpec ¹ 2008 except BE, EU27, FR, IT, UK (2007)

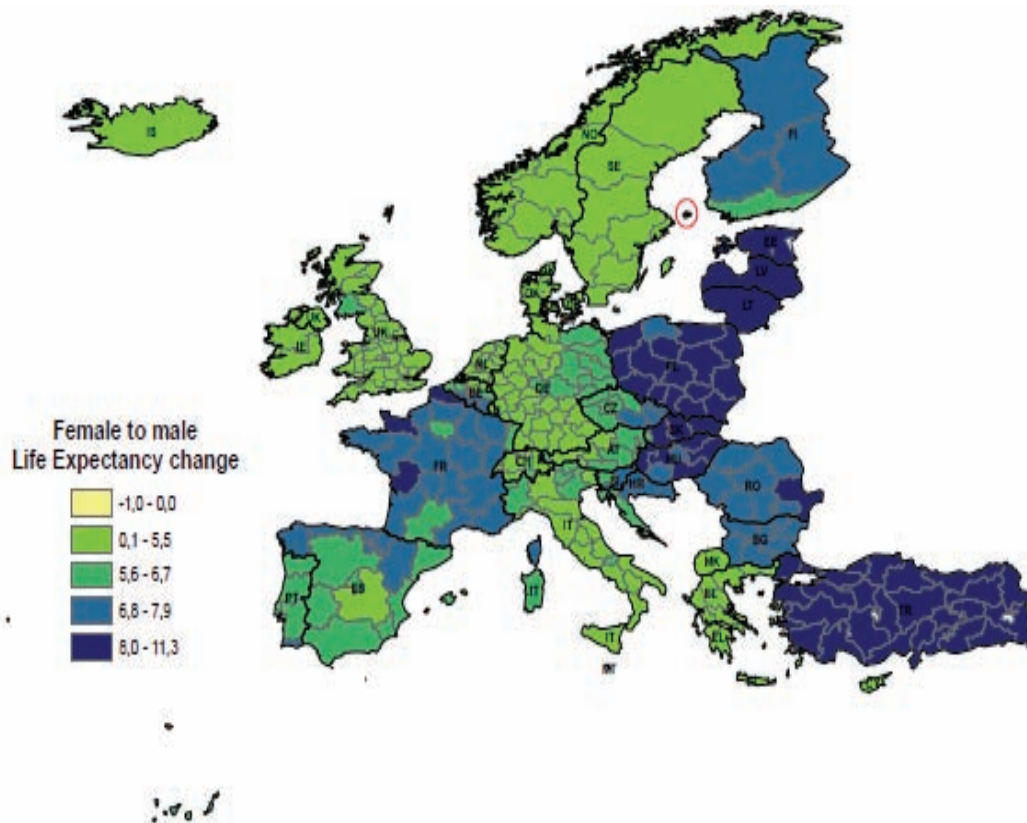
These aggregations of data do not do justice to the large intra-country variations that exist. Averages can mask inequalities that paint a quite different picture of the problems some men face. At the NUTS2 (regional data) level, we can see that in the Itä-Suomi region of Finland the average life expectancy is 75yrs as compared to 81.8yrs in Åland, which has the distinction of being the only region in the EU that has a higher average life expectancy than women²⁷ (80.8yrs) (please see red circle on the map 2.1.3). It is notable that the difference in life expectancy between the highest and lowest regions is 10.3 years for women and 15.5 years for men, offering a far greater challenge than tackling any differences between the sexes.²⁸

²⁷ though it must be noted that this may be an artefact of their small population as in 2007 the life expectancy at birth was 85.6 years for females

²⁸ Men – Lithuania 66.3 years compared to Åland, Finland 81.8 years.

Women- Североизточен / Severoiztochen in Bulgaria 76.3 years compared to Ticino, Switzerland 86.6 years.

Map 2.1.2 Female to male life expectancy change



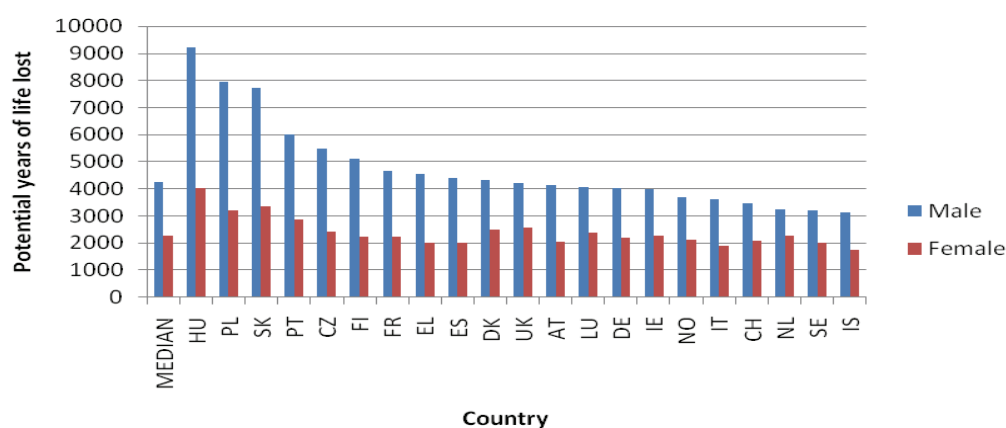
Source: Eurostat demo_r_mlifexp

2.1.8 Men's greater risk of premature death

The life expectancy data suggests that for there to be such differences between the average age of death between men and women that men must be experiencing a higher rate of premature death.

This seems to be borne out by the potential years of life lost (PYLL) data, which is calculated from the point of death to a future date that the individual could have been expected to live to. In all the countries men's higher rate of premature death shows markedly in the PYLL data with Hungary standing out with a 9235 years of life lost per 100,000 population, over three times higher than that of Iceland (Fig. 2.1.14).

Fig. 2.1.14 Potential years of life lost, by sex and country, 2007



Source: OECD HEALTH DATA

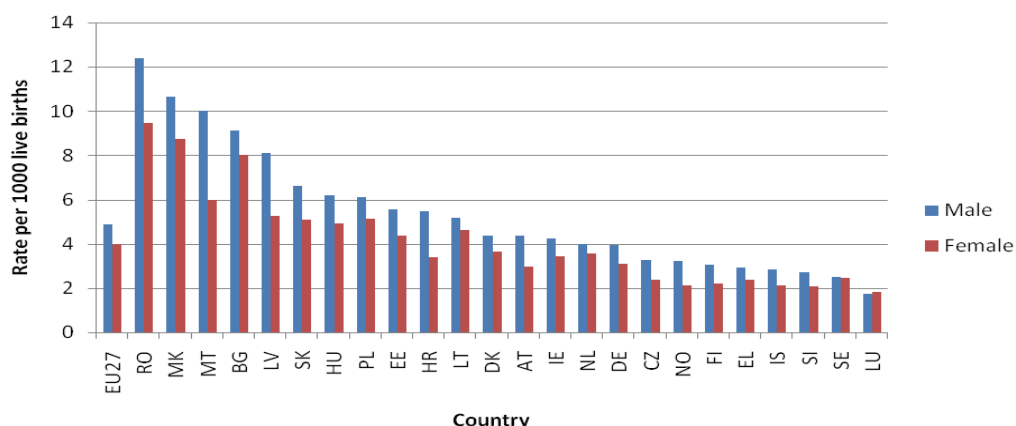
To explore this high level of premature death in more detail a breakdown has been undertaken of the mortality data to determine when these deaths are occurring and from what causes.

2.1.9 Infant mortality

The higher rate of male mortality starts from conception. The fragility of the male embryo in comparison to the female has long been recognised and though it is very difficult to estimate it is generally accepted that the primary sex ratio (at conception) is about 20-40% higher for boys as compared to girls. At birth the secondary sex ratio has reduced to about 100 females to 105 males. The cause of this high rate of miscarried male embryo's is thought to be a result of a weaker bond between the X and Y chromosomes as compared to the XX pairing (Shettle, 1961, McMilles, 1979, Miller, 1980).

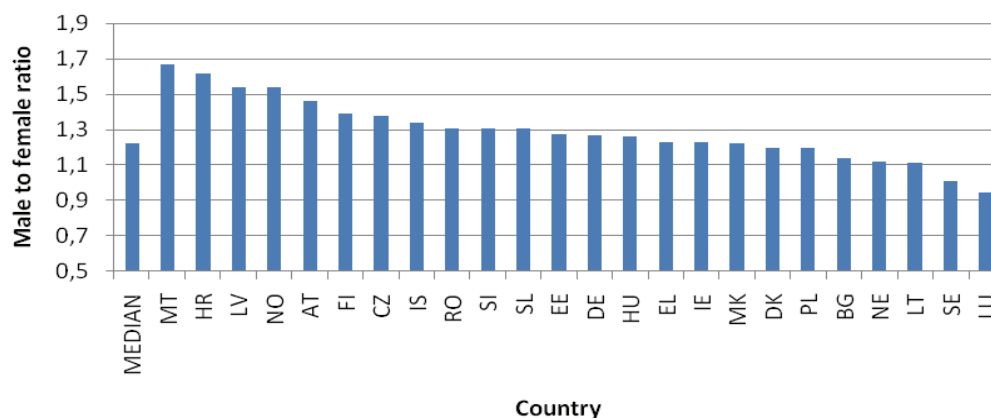
The rate of infant mortality is complicated to assess as there are cases of selective abortion of female foetuses, the extent of which is unknown. The data available on infant mortality as defined as the number of infant deaths in one year or younger per 1000 live births, is seen to differ both between countries and between males and females with Luxembourg having less than 2 deaths per 1000 live births as compared to over 12 deaths per 1,000 for Romania (Fig. 2.1.15). The ratio of male to female deaths shows almost parity in Sweden compared to over 60% higher death rate for infant boys in Croatia and Malta (Fig. 2.1.16).

Fig. 2.1.15 Infant mortality, rate per 1000 live births, by sex and country, latest year¹



Source: merged data from: Eurostat demo_magec and WHO Health for all database

Fig. 2.1.16 Sex ratio of rates of infant mortality, by country, 2008



Source: Eurostat demo_magec

2.1.10 Male mortality across the lifespan

In order to explore the impact of mortality across the lifespan a numerical analysis of the number of deaths occurring at each age was undertaken (Fig. 2.1.17, Fig. 2.1.18) This revealed that the higher burden of death in men appears to be occurring at every age until the age of 80. What is noticeable is the high number of deaths that are occurring in the working age population of 15-64 years, with nearly 630,000 men dying across EU27 in these years, as compared to 300,000 deaths for women.

Fig. 2.1.17 Total number of deaths, ages 0-64 years, EU27, 2007

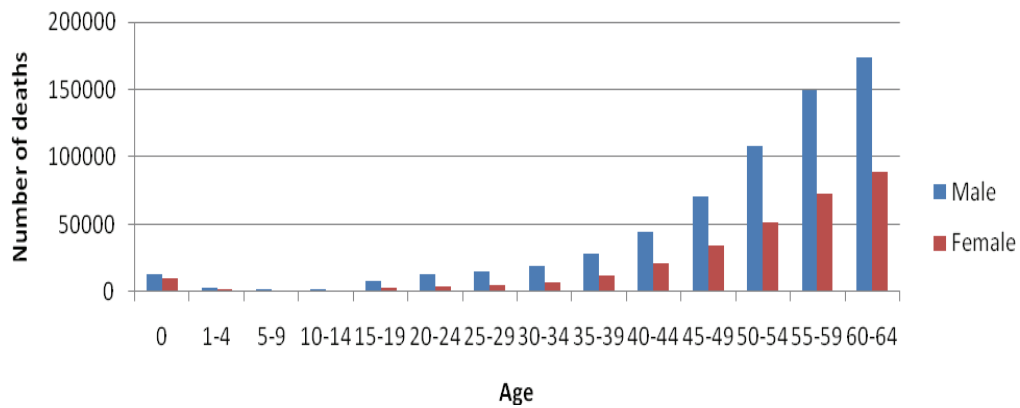
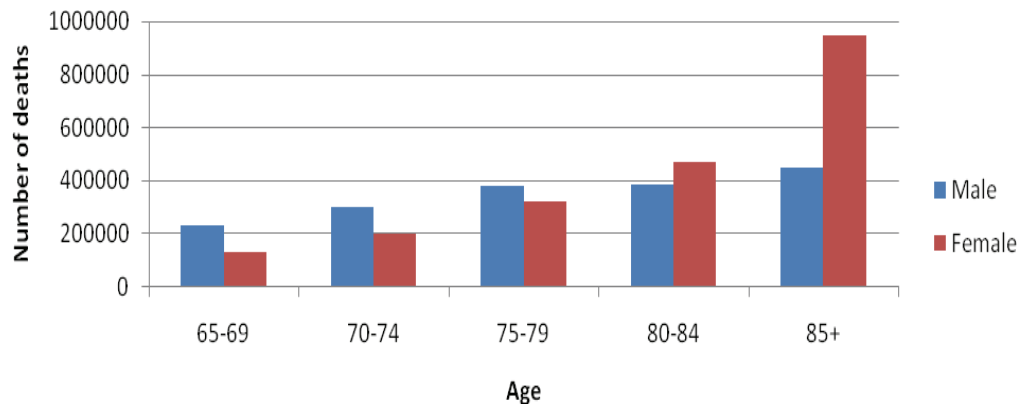


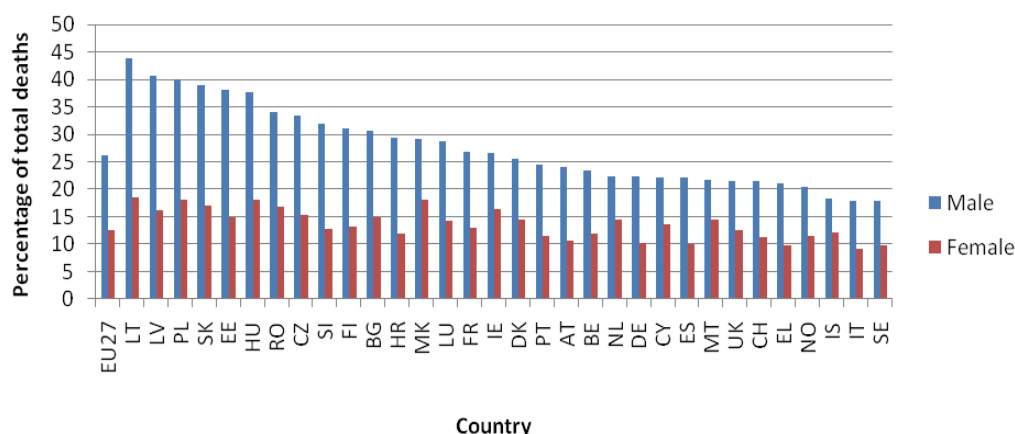
Fig. 2.1.18 Total number of deaths, ages 65+ years, EU27, 2007



Source: Eurostat hlth_cd_anr

For the working age population the number of deaths occurring in the age range 15-64 years was compared to the overall total number of deaths for men to show the percentage that occur in this age range (Fig. 2.1.19). For some countries, over 40% of male deaths occur at an age when men should be at their peak of activity. Even across the majority of the Western European countries over a fifth of Male deaths are occurring within this age range.

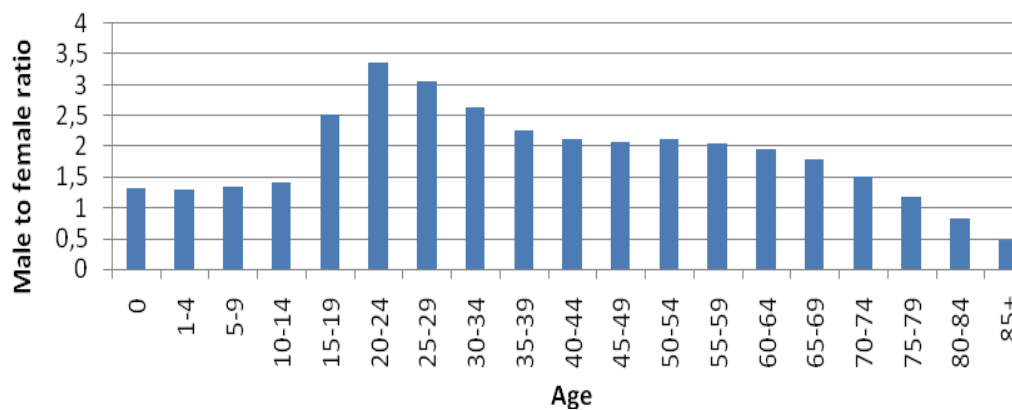
Fig. 2.1.19 Deaths in 15-64 age range as a percentage of total deaths, by sex and country, latest year. ¹



Source: Eurostat hlth_cd_anr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE (2007). DK, LU, PT (2006). BE (2004)

The ratio of deaths suggests that the biggest differences between men and women are found in the younger age ranges, with over 3 times more men than women aged 20-29 dying, but the excess extends right up until the over 80 year age (Fig. 2.1.20).

Fig. 2.1.20 Sex ratio of total number of deaths, by age, EU27, 2007



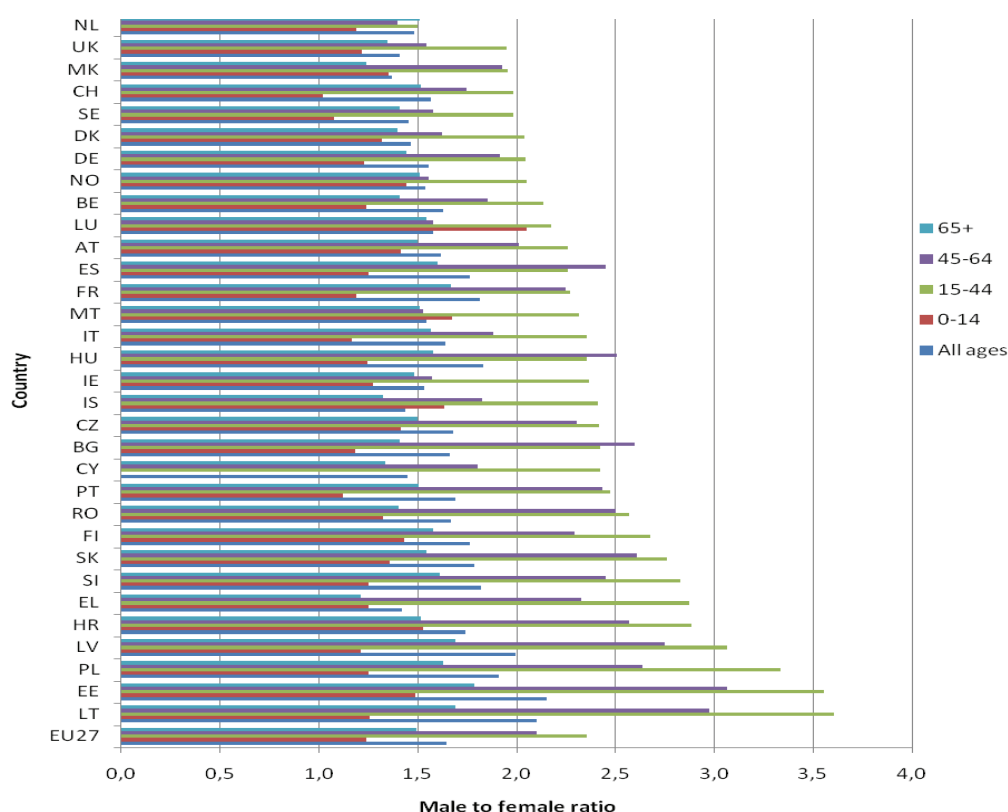
Source: calculated from: Eurostat hlth_cd_anr

Rates of death between men and women were calculated for 5 age groups: 0-14 years, 15-44 years, 45-64 years, 65+ years and all ages (Fig. 2.1.21). For the EU27, it can be seen that overall men have a 64% higher rate of death for all ages than women with that rate ranging from 24% higher rate in the 0-14 year age range, 2.36 time higher rate in the 15-44 age range and just over twice as high a rate in the 45-64 age range. In the over 65 age range there is

now a 50% higher rate of death in men, such that though numerically there are fewer male deaths in this older age group, the lower number of men in this age group means that the rate is greater for men.

In the 0-14 year age range, Luxembourg stands out as having over twice as many male than female deaths. Malta and Iceland both have over 60% more deaths among boys. There are more marked differences between countries in the 15-44 years age range. Lithuania and Estonia have over 3½ times more male deaths as compared to 1½ times higher in the Netherlands for the same age range. In the 45-64 year age range, Estonia has over 3 times more male deaths. In the over 65 age range Lithuania, Latvia and France have nearly 70% higher male death rates.

Fig. 2.1.21 Sex ratio of rates of death, for all conditions, by age and country



Source: rates calculated from: Eurostat hlth_cd_anr

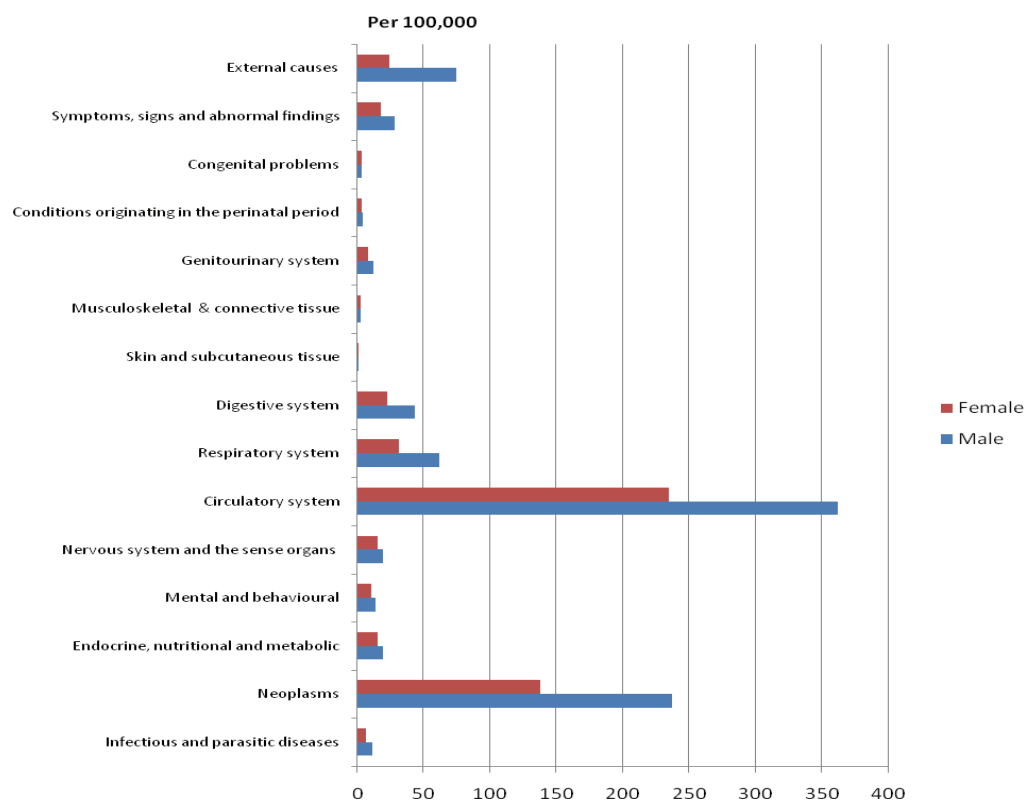
2.1.11 Overall burden of disease

To help determine what is causing these deaths an analysis was undertaken of the available mortality data from Eurostat. Eurostat collects data on 65 conditions, the first of which comprises the data relating to all causes of death,

16 relate to the main classification groups of diseases i.e. neoplasms (C00-D48) relates to all cancer deaths, and then there are a further 48 groups which comprise data on the sub-groups of these i.e. cancer of the stomach. There are some groups that only relate to women, i.e. Pregnancy, childbirth and the puerperium (O00-O99) and cancer of the cervix, and one that relates only to men, cancer of the prostate. The rest, in the main, relate to conditions that are not sex-specific.

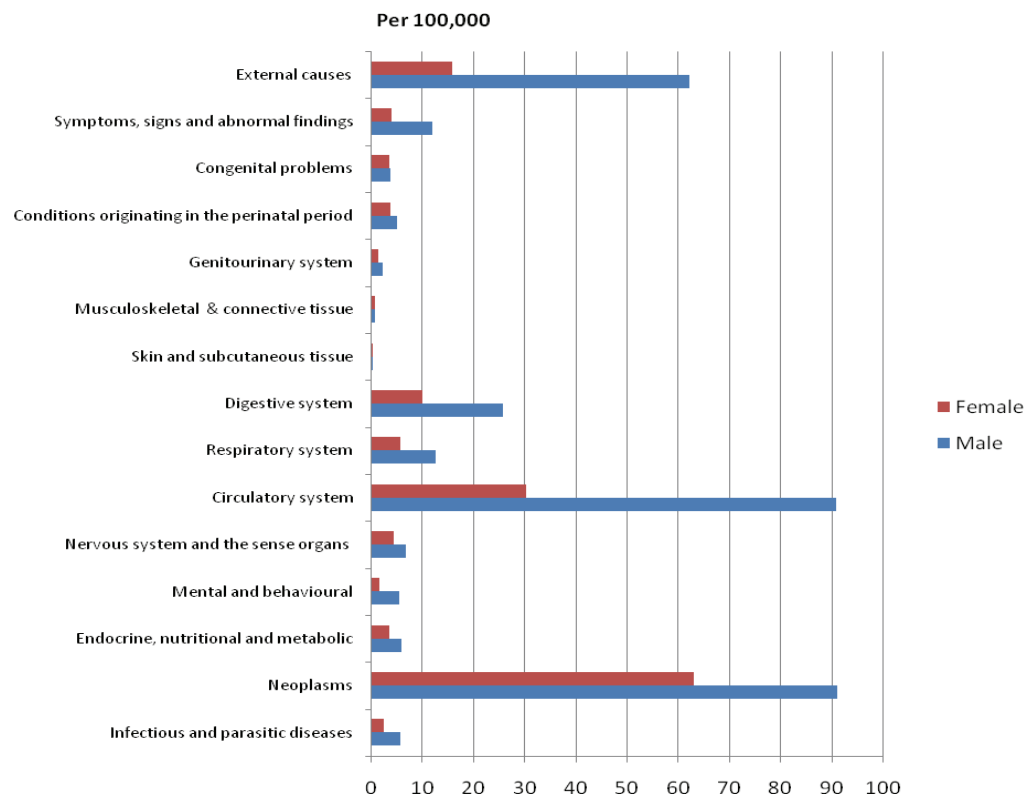
Fig. 2.1.22 and Fig. 2.1.23 show the age standardised death rates for the main classification groups for the EU27 for two different groups – all ages and 0-64 years. It can be seen that across all ages cardiovascular disease has the highest overall rate of death for men accounting of just over 360 deaths per 100,000 population followed by deaths as a result of neoplasm's, external causes of morbidity and mortality and respiratory disease. Within the age range 0-65 years neoplasms and cardiovascular disease are now similar in the rate of death, with deaths from external causes and diseases of the digestive system taking a more prominent role as causes of premature death for men.

Fig. 2.1.22 Age standardised death rates – main causes, by sex and country, all ages, EU27, 2007



Source: Eurostat hlth_cd_asdr

Fig. 2.1.23 Age standardised death rates – main causes, by sex and country, ages 0-64 years, EU27, 2007

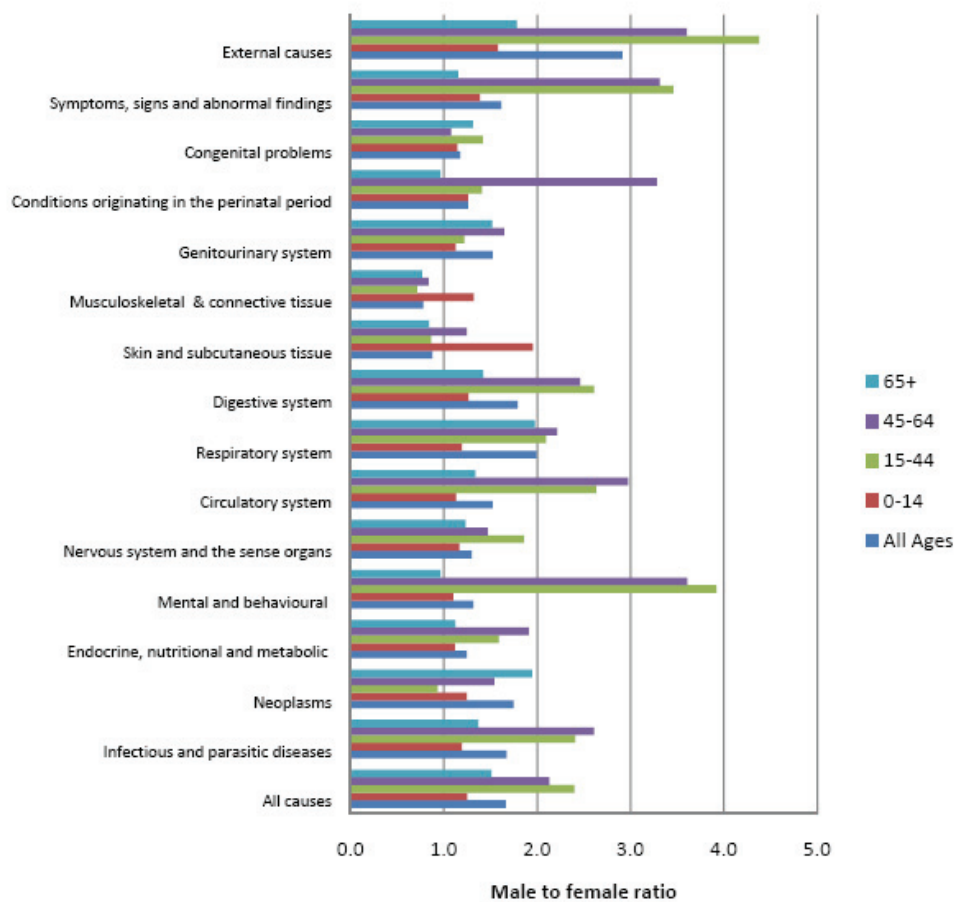


Source: Eurostat hlth_cd_asdr

Analysis of the majority of the 65 causes of death included in Eurostat's main database was undertaken (Fig. 2.1.24) to show the male to female ratio across these same age ranges.

It can be seen that there is a marked age effect on mortality data for men when compared to women. Across all the classification groups males have a higher ratio of rates of death in the 0-14 age range and a similar, but more marked picture is seen for the 15-44 and the 45-64 age ranges (the exceptions being deaths as a result of Diseases of the musculoskeletal system and connective tissue (M00-M99) and Certain conditions originating in the perinatal period (P00-P96) for the 15-44 age group. A further exception is in relation to Neoplasms, where there is an excess of female deaths in the 15-44 age range, though it must be noted that the majority of the sex specific cancers only affect women in this age range and for the other cancers there is a male excess (see section 2.3). In the over 65 age group the higher rate of death persists across the majority of the classification groups.

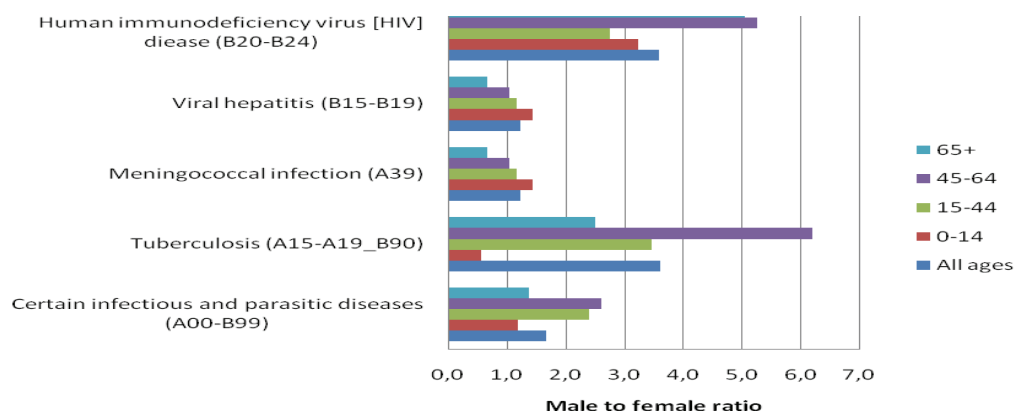
Fig. 2.1.24 Sex rate ratio of death rates, main classification groups¹, by age, EU27, 2007



Source: calculated from: Eurostat hlth_cd_anr ¹Excluding Pregnancy, childbirth and the puerperium as this only relates to female mortality

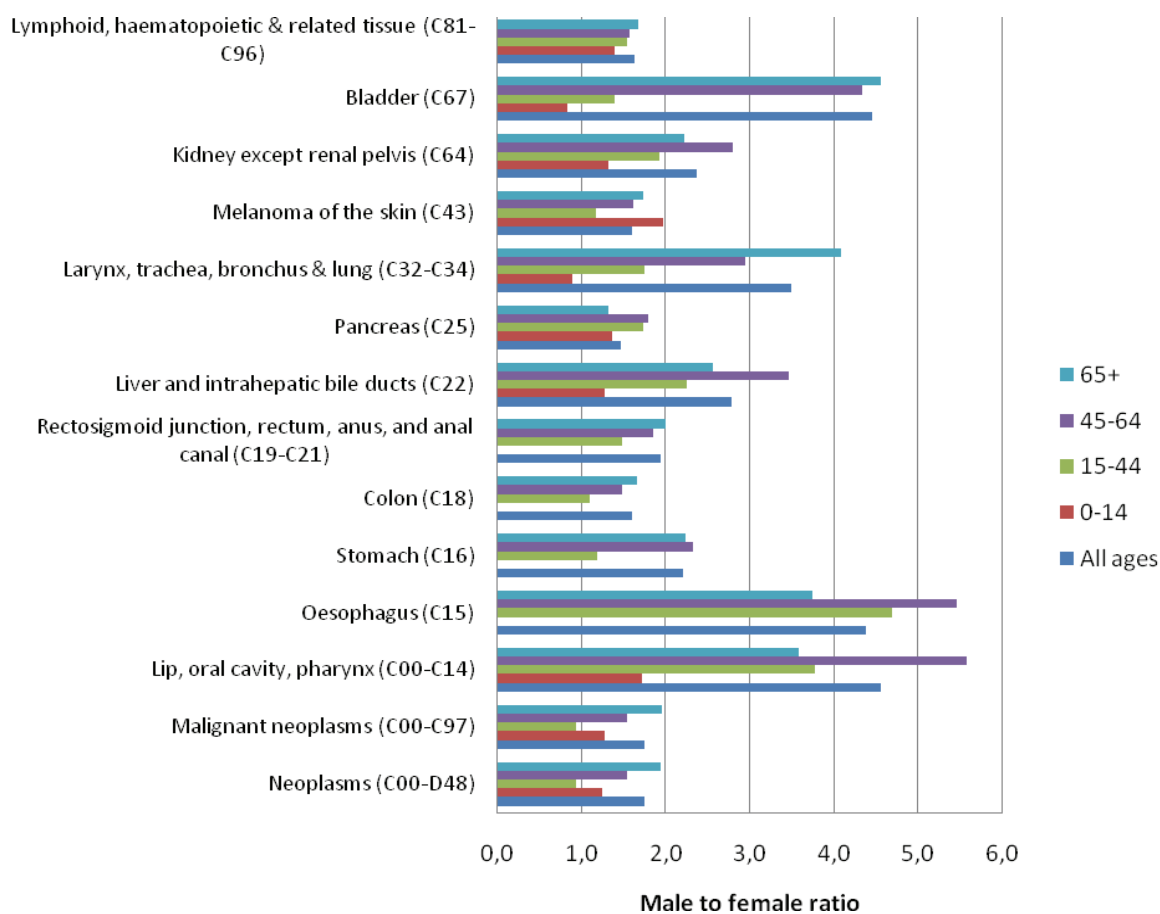
When each of these major groups are broken down into their sub groups (Fig. 2.1.25 – Fig. 2.1.35) we see how the pattern of male excess with regard to premature death extends across the majority of the 65 causes of death within the Eurostat’s classification groups.

Fig. 2.1.25 Sex ratio of standardised death rates as a result of Infectious diseases, by age, EU27, 2007



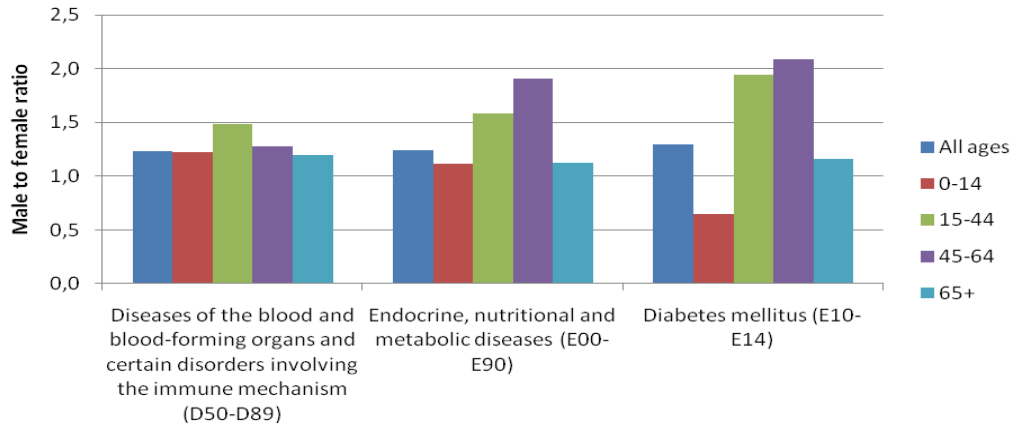
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.26 Sex ratio of standardised death rates as a result of cancer, by age, EU27, 2007



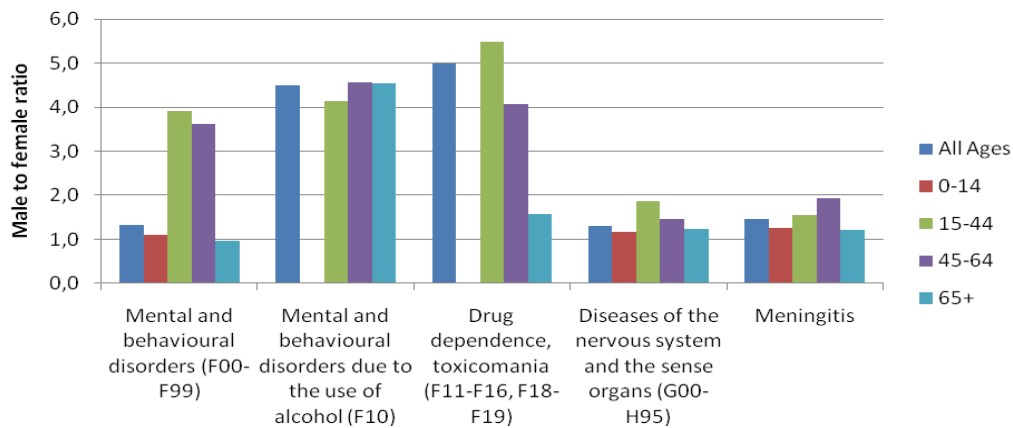
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.27 Sex ratio of standardised death rates as a result of diseases of the Blood and blood-forming organs and certain disorders involving the immune mechanism, Endocrine, nutritional and metabolic diseases, by age, EU27, 2007



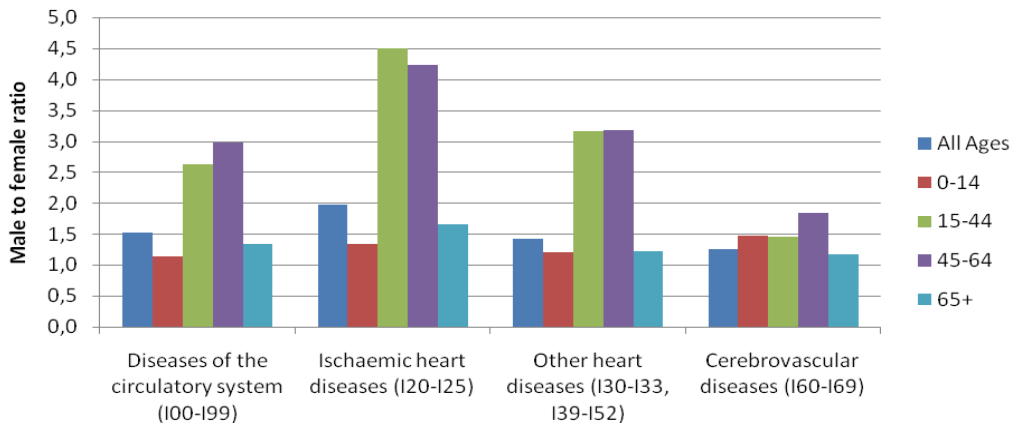
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.28 Sex ratio of standardised death rates as a result of Mental & behavioural disorders & nervous system, by age, EU27, 2007



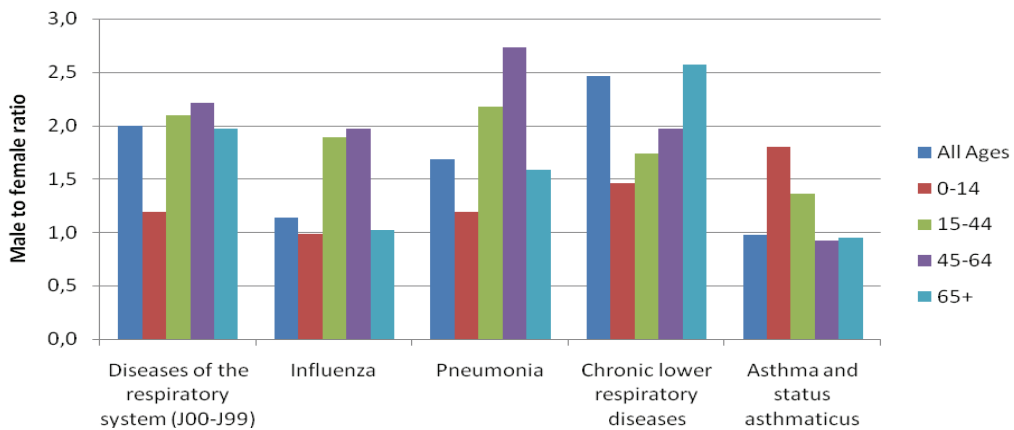
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.29 Sex ratio of standardised death rates as a result of Circulatory disorders, by age, EU27, 2007



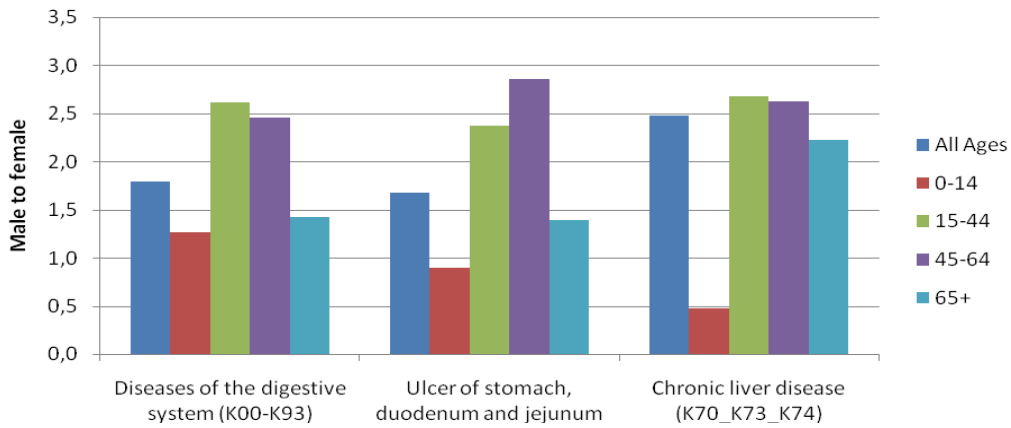
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.30 Sex ratio of standardised death rates as a result of Respiratory disorders, by age, EU27, 2007



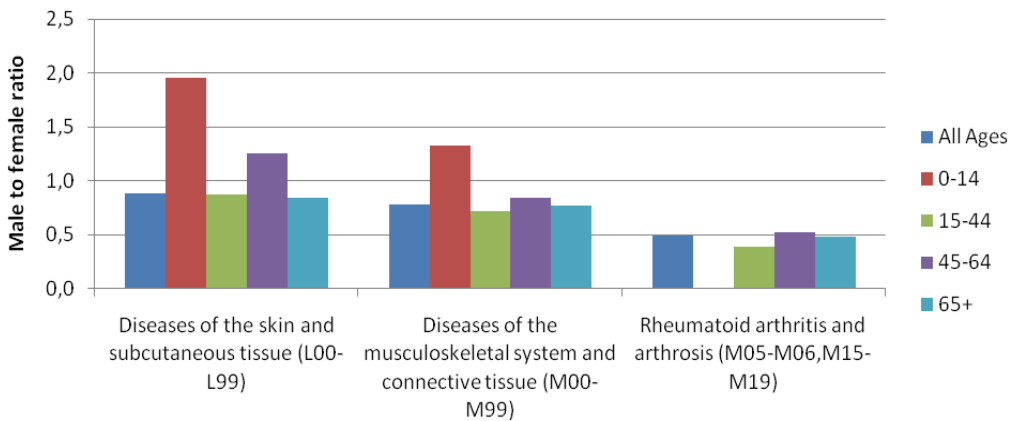
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.31 Sex ratio of standardised death rates as a result of Digestive disorders, by age, EU27, 2007



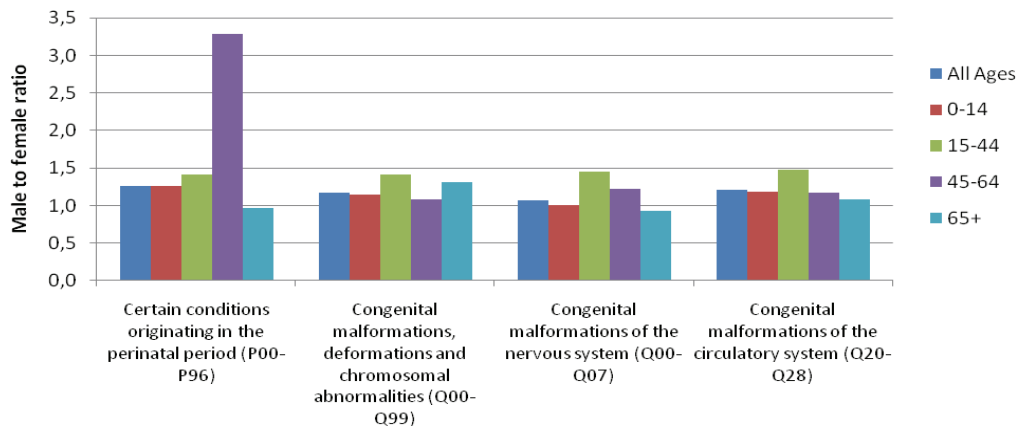
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.32 Sex ratio of standardised death rates as a result of Skin, muscle, connective tissue disorders, by age, EU27, 2007



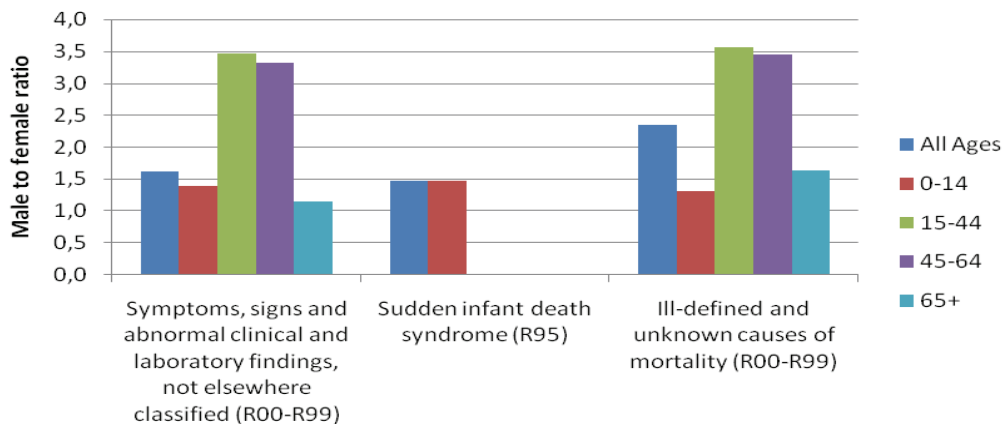
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.33 Sex ratio of standardised death rates as a result of Perinatal & congenital disorders, by age, EU27, 2007



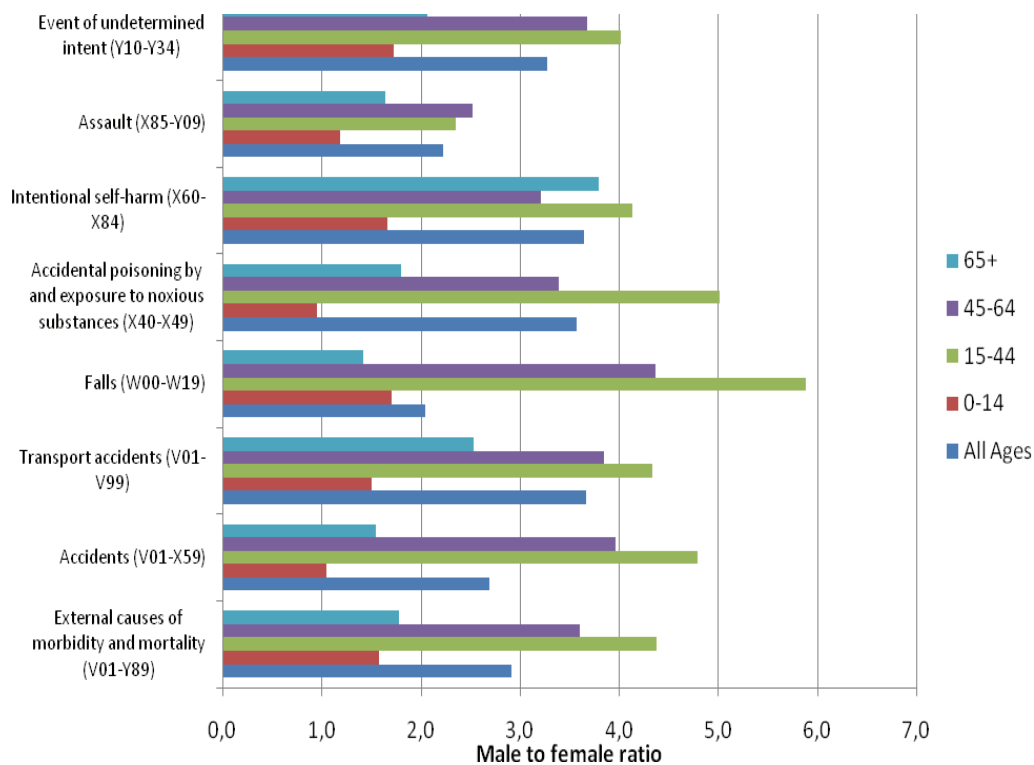
Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.34 Sex ratio of standardised death rates as a result of Symptoms, signs etc not elsewhere classified, by age, EU27, 2007



Source: calculated from Eurostat hlth_cd_anr

Fig. 2.1.35 Sex ratio of standardised death rates as a result of External causes, by age, EU27, 2007

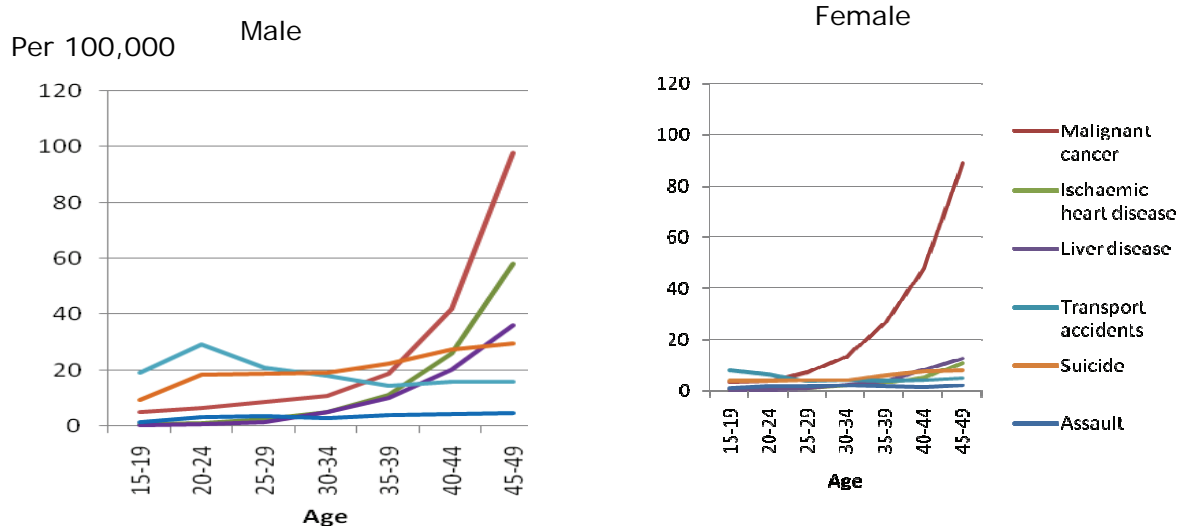


Source: calculated from Eurostat hlth_cd_anr

Following on from an analysis undertaken on mortality across 44 countries in men and women aged 15-44 (White & Holmes, 2006) a similar analysis was undertaken for EU27, with the same selection of causes of death but over the 15-49 age range (Fig 2.1.36). What can be seen is that Transport Accidents are the main cause of death in men in the 15-29 age range, with suicide having the highest rate of death in the 30-39 age range. Large increases are seen in the deaths as a result of ischaemic heart disease and cancer between the ages of 30-34 years and 45-49 (over 11 fold increase and 9 fold increase respectively). Liver disease is also seen to be increasing (6 fold increase). Assault is not a major contributor to men's high death rates.

It is noticeable the impact of cancer on women's premature death, but it is also important to note that suicide is the second highest cause of death from 25-39 years of age across the EU27 for women.

Fig 2.1.36 Age specific death rates, for selected causes, 15-49 years, EU27, 2007



Source: Eurostat hlth_cd_acdr

Breaking down the causes of death for men within each country shows that different diseases take on a greater or lesser impact on the total deaths (Fig. 2.1.37). For example, deaths as a result of cardiovascular disease account for a greater proportion of deaths in Eastern European countries than in Western Europe (i.e. 62% in Bulgaria vs 26% in France). Deaths as a result of neoplasms are more common in the West (e.g., 35% in Italy and the Netherlands). It is notable that nearly 12% of male deaths in Portugal are assigned to the classification 'Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)'.

Fig. 2.1.37 Male mortality from underlying causes of death as a proportion of total deaths, by country



Source: Eurostat hlth_cd_anr. ¹ 2008 except, BG, CH, EU27, FR, IT, MT, PL, RO, SE (2007). DK, LU, PT (2006). BE (2004)

2.1.12 References

Andreev EM, McKee M, Shkolnikov V et al., (2003). Health expectancy in the Russian Federation: a new perspective on the health divide in Europe. *Bulletin of the World Health Organization* 81(11): 778-789

Barreto S, Figueiredo R (2009) Chronic diseases, self-perceived health status and health risk behaviors: gender differences. *Rev Saude Publica* 43 (S 2): 38-47

Commission of the European Communities (2007) White Paper Together for Health: A Strategic Approach for the EU 2008-2013, Brussels Com (2007) 630 final

EIWH (2006) Women's health in Europe: facts and figures across the European Union. Dublin, European Institute of Women's Health

Marquez PV (2005) Dying too young: Addressing Premature Mortality and Ill Health Due to Non-Communicable Diseases and Injuries in the Russian

- Federation. Washington, Europe and Central Asia Human Development Department/The World Bank
- McMillles MM (1979) Differential mortality by sex in fetal and neonatal deaths. *Science* 204:89-91
- Miller JF, Williamson E, Glue J et al., (1980). Fetal loss after implantation: A prospective study. *Lancet* 2:554-556
- Neumayer E, Plümpert T (2007) The gendered nature of natural disasters: the impact of catastrophic events on the gender gap in life expectancy, 1981-2002. *Annals of the Association of American Geographers* 97(3):551–566
- Nolte E, McKee M (2004) Does health care save lives? Avoidable mortality revisited. London, The Nuffield Trust
- Rajaratnam JK, Marcus JR, Levin-Rector A et al., (2010) Worldwide mortality in men and women aged 15–59 years from 1970 to 2010: a systematic analysis. *The Lancet* 375(9727):1704-1720
- Ritsatakis A, Makara P (2009) Gaining health. Analysis of policy development in European countries for tackling non communicable diseases. Copenhagen, WHO
- Rona RJ, Hooper R, French C et al., (2006) The meaning of self-perception of health in the UK armed forces. *Br Jr Health Psychol* 11:703-715
- Saurel-Cubizolles M-J, Chastang J-F, Menvielle G, et al., (2009) Social inequalities in mortality by cause among men and women in France. *J Epidemiol Community Health* 63:197-202
- Shettles LB (1961) Conception and birth sex ratios. *Obstet Gynecol*; 18: 122-30
- Thomas B (2010) Inequalities in premature mortality in Britain: observational study from 1921 to 2007 *BMJ* 341:c3639
- White AK, Holmes M (2006) Patterns of mortality across 44 countries among men and women aged 15-44 years. *The Journal of Men's Health & Gender* 3(2):139-51
- Zantoń W, Manczuk M, Sulkowska U (2008) Closing the health gap in the European Union. Warsaw, HEM project.

2.2 Cardio-Vascular Disease

2.2.1 Main Points

- Since the 1970's in Europe there have been marked reductions in cardiovascular morbidity and mortality. Nevertheless, Cardio-Vascular Disease (CVD) is still one of the biggest risks to men's health. In the older population it is increasingly the principal cause of death.
- Whilst CVD accounts for a mortality rate of 36% of all deaths for men, the differences across Europe are marked ranging from 61% of total male deaths in Bulgaria to just 25% in France.
- The Balkan and Baltic regions have significantly higher mortality levels from CVD than the other European countries.
- Ischemic Heart Disease, (IHD) is responsible for 360,000 deaths among men in the EU27, nearly 15% of all mortality.
- Cerebro-Vascular Disease (stroke) constitutes 8% of all male deaths or nearly 200,000 lives lost.
- Educational attainment levels has a direct impact on the risk of dying from Cardiovascular disease.
- Smoking remains the single most preventable cause for poor cardiovascular health.

2.2.2 Summary

Although there have been great improvements in cardiovascular health, marked differences exist between different parts of the EU. In some countries cardiovascular disease (CVD) accounts for half of all premature male deaths. In the most vulnerable regions, such as the Baltic States, CVD premature mortality is almost 6 times higher than in those countries with the lowest risk rates such as Switzerland, Iceland and Italy. These inequalities are found not just at the national level: a significant degree of social stratification with regard to CVD is also seen within countries across Europe (Mackenbach et al., 2003). A prime example of this is found in Polish young adult males (15-44) for who, at the beginning of the 21st century, the risk of dying from cardiovascular diseases was some six times higher for those with primary education than for those with university education (Mackenbach et al., 2003; Zatoński et al., 2008). The historical trend of low IHD mortality in the Mediterranean region is today much less apparent with Greece having one of the highest rates in Western Europe. Stroke accounts for 200,000 deaths among men in Europe but as with IHD, the

Balkan region, Bulgaria, Former Yugoslav Republic of Macedonia and Romania have the highest rates of stroke mortality.

Educational attainment has a direct impact on the risk of CVD mortality, up to six times higher for those without a University education. Smoking of tobacco is the single most preventable cause for poor cardiovascular health.

One of the most important challenges in vascular disease control in Europe is the huge gap between Eastern and Western Member States of the EU. As the single most controllable cause of this gap, cardiovascular diseases are one of the most important areas in which the European Union that can achieve significant results in equalising the health of Europeans. Targeted action in the form of special programmes of activity within these countries would hasten the process of health transformation in the Eastern part of the EU²⁹.

A further challenge in the management of cardiovascular disease across all the Member States of the European Union is the inequality in access to appropriate health services determined by socioeconomic factors.

2.2.3 Introduction

The single most important cause of poor cardiovascular health in Europe is smoking. The reduction in smoking prevalence in the male population in some EU countries since the 1960s is an important factor for the decrease in male cardiovascular mortality. It is only with the complete elimination of smoking that a radical reduction in premature mortality can be achieved. Finland is the only European country to date that has a strategy to eliminate smoking by 2030 (see section 1.4).

Another challenge is the growing level of obesity, especially in the male population, which constitutes a substantial cardiovascular risk factor. The link between men's central obesity and the metabolic syndrome, which is characterised by hypertension, high cholesterol and diabetes mellitus (Type II) makes this a significant factor in men's high rate of premature death (see section 1.4).

²⁹ www.hem.waw.pl last accessed 09/12/10

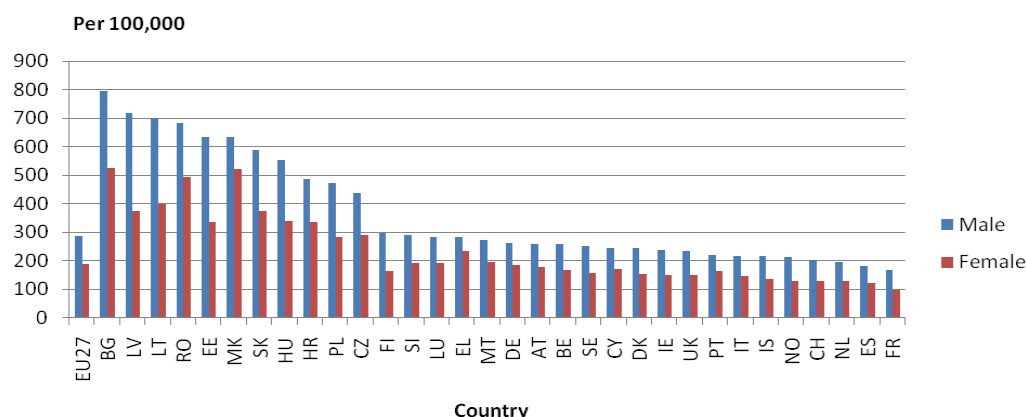
Binge drinking, especially among the young population, is becoming yet another serious issue for the EU countries. Excessive alcohol use is not only a problem for cardiovascular health in the Eastern Member States of the EU, but increasingly it affects young and middle aged males in England and Scotland. Sudden cardiac death as a result of drinking is a significant cause of cardiovascular premature mortality (Britton & McKee, 2000).

2.2.4 Cardiovascular disease

Cardiovascular diseases (CVD) at the end of the first decade of the 21st century are the cause of around 900,000 deaths among men and 1 million among women in the EU27. CVD constitutes 36% of all mortality causes among men and 44% among women. In 2008, cardiovascular diseases caused 160,000 deaths among males and 60,000 deaths among females in the EU27 before 65 years of age and account for 1/4 of all deaths in this age group in Eastern Europe, and around 1/5 of all deaths in Western Europe.

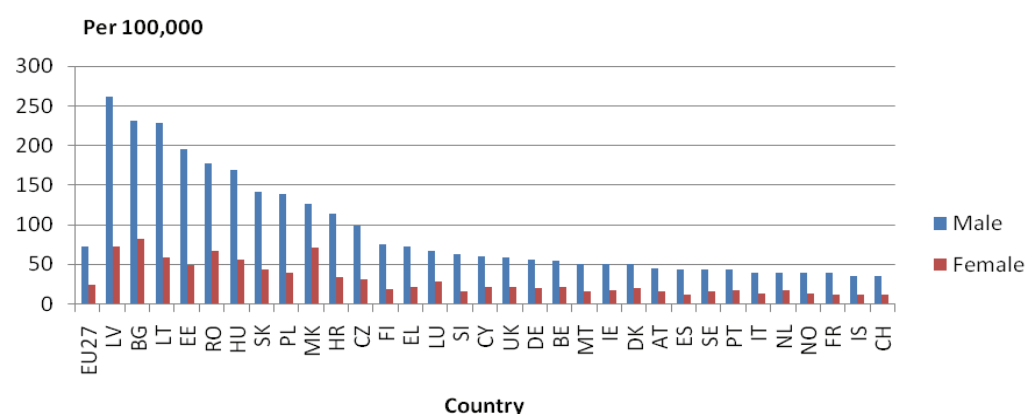
The percentage of deaths resulting from CVD is very different across EU 27; it is the highest for Bulgaria (61%) and the lowest for France (25%) (see Fig 2.1.37). Generally, in the countries of the Eastern part of the EU, CVD constitutes around 50% of all death causes, while in the Western part of the EU they amount to about one-third. Similarly, age-standardised mortality rates from CVD by country are much higher in Eastern Europe. The magnitude of this gap is illustrated by a five times difference between the highest mortality rate observed in Bulgaria and the lowest observed in the France (Fig. 2.2.1). There is a marked age effect with the sex difference being much more pronounced in the 0-64 age group (Fig. 2.2.2).

Fig. 2.2.1 Age standardised mortality for CVD, by sex and country, all ages, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.2.2 Age standardised mortality for premature CVD, by sex and country, ages 0-64 years, latest year¹



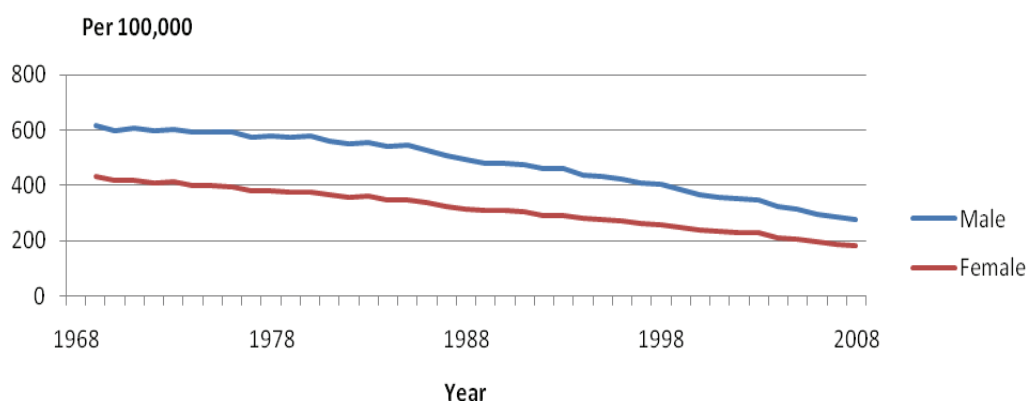
Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

After the Second World War a growth of cardiovascular morbidity and mortality was observed in most European countries. Until the end of the 1960s the level of cardiovascular mortality in Europe was shaped predominantly by a north-south divide with higher risk countries such as Finland and the UK in the North and lower risk countries such as Greece and Spain in the South. Today, any evaluation of the epidemiological situation of cardiovascular illnesses in EU27 must include the dramatic gap in cardiovascular mortality between countries of Western Europe and the new member-states and candidate countries of the EU still undergoing transformation in Eastern Europe.

In most countries of Western Europe an extraordinary constant decline in cardiovascular mortality has been observed since the beginning of the 1970s among both genders and in all age groups (although the decline was fastest in the youngest age groups, and slower in the oldest age groups). The pace of this decline has not slowed down in the last decade. During these 40 years the level of mortality has fallen by over half (Fig. 2.2.3).

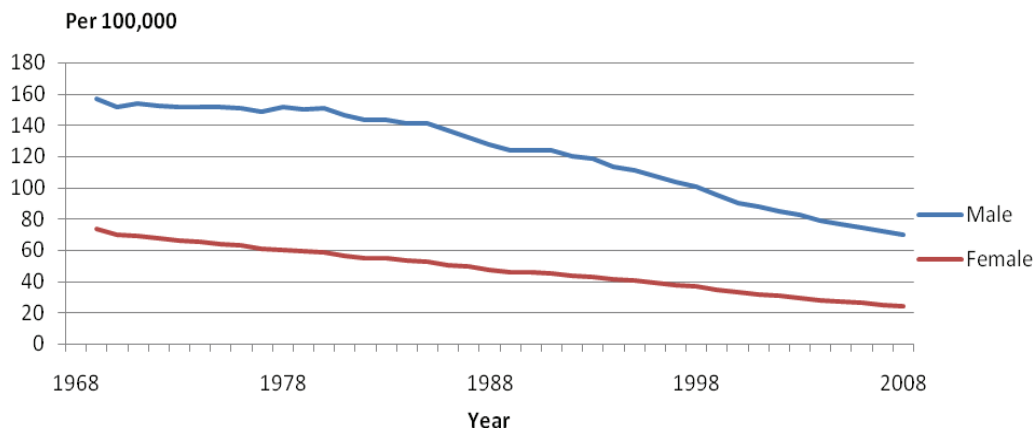
In contrast, in the countries of Eastern Europe a continuous growth of cardiovascular mortality was observed among men until the end of the 1980s. This increase was especially pronounced among young and middle-aged men, while the mortality rates were more stable among the female population (Fig. 2.2.4). As a result of this phenomenon in the early 1990s cardiovascular mortality in Eastern Europe was a few times higher than in Western Europe; an east-west gap in access to cardiovascular health divided Europe in two (www.hem.waw.pl).

Fig. 2.2.3 Time trends of CVD mortality, by sex, all ages, EU27, 1969-2008



Source: WHO Morticd10

Fig. 2.2.4 Time trends of CVD mortality, by sex, ages 0-64 years, EU27, 1969-2008

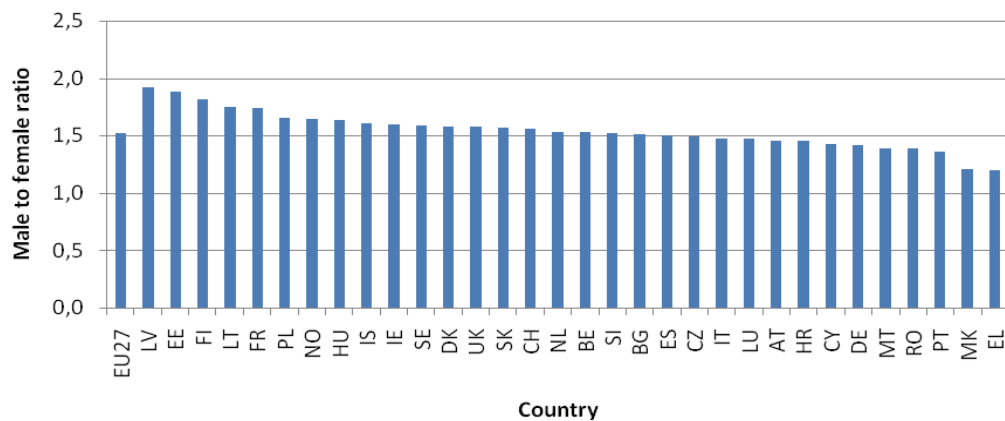


Source: WHO Morticd10

Cardiovascular transformation occurred in those central and Eastern European countries which are currently members of the EU after 1990. In five countries (Czech Republic, Hungary, Poland, Slovakia and Slovenia) a rapid decline of cardiovascular disease mortality started in the early 1990s in both sexes and in all age groups (Zatoński et al., 1998). In the mid-1990s it began in Bulgaria and Romania and in the three remaining current EU members (the so-called Baltic States: Lithuania, Latvia and Estonia), after a temporary decline of cardiovascular mortality in the years 1994-1997, the mortality rates remained frozen at a very high level for the last decade (1998-2008) (www.hem.waw.pl).

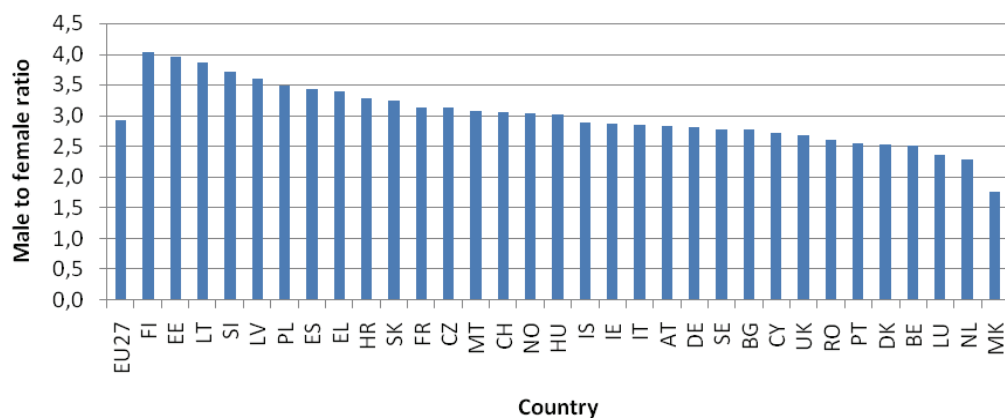
The prevalence of cardiovascular mortality, subject to change through time, has been traditionally higher among men than women. In 2008 (see Fig. 2.2.5) it was 1.5 times higher among men than among women in the EU27 (from 1.2 in Greece to 1.9 in Latvia and Estonia). In the case of the population aged 0-64 (young and middle-aged adults) (see Fig. 2.2.6) the sex ratio is significantly higher, and amounted to as much as 2.9 for EU27, ranging from 1.8 in Macedonia to 4.0 in Finland and Estonia.

Fig. 2.2.5 Male to female ratio, age standardised death rates for CVD, all ages, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.2.6 Male to female ratio, age standardised death rates for CVD, ages 0–64 years, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

The transformation of cardiovascular diseases through time has occurred in both sexes simultaneously. The largest absolute decline occurred in the high-risk countries. For instance, the largest fall in male mortality took place in Finland (from 314/100,000 deaths at the peak in 1971 to 75/100,000 by 2008 for the age group between 0-64yrs). The lowest absolute decline was observed in Greece, where, since the highest levels of mortality observed in 1987 (103/100,000), it had fallen by 30/100,000 in 2008.

The annual percentage rate of decline of cardiovascular mortality for men in the EU27 from peak year ranged from 1.4% in Greece to 2.3% in Sweden and 2.6% in Poland and Slovenia. The levels are similar among men and among women. It is interesting that the rate of decline in the last decade has not slowed down, and remains roughly on the same trajectory amongst both sexes.

Age is another factor which has shaped the pattern of cardiovascular transformation in Europe. The dramatic decline of cardiovascular diseases observed for many decades mainly in the Western part of Europe (but, for the last two decades, also in Eastern Europe) has reduced the influence of cardiovascular disease in premature mortality. First, among Western European women and since the early 1990s, also among women in Eastern Europe, cardiovascular diseases have ceased to be the number one factor for premature mortality (before 65 years of age), and have been taken over by cancer.

A similar phenomenon among the male population is occurring with a time delay. For Western European men, cardiovascular diseases were taken over by cancer as the dominant factor of premature mortality in the second part of the 1980s. For Eastern European men, this tendency has been occurring over the last two decades, and in some countries (Slovenia, Czech Republic, Poland, Slovakia), cancer has already replaced cardiovascular disease as the main cause of premature mortality. This has also led to the shifting of cardiovascular mortality on to the age group above 65 years; it has concentrated cardiovascular mortality in the oldest age groups (www.hem.waw.pl).

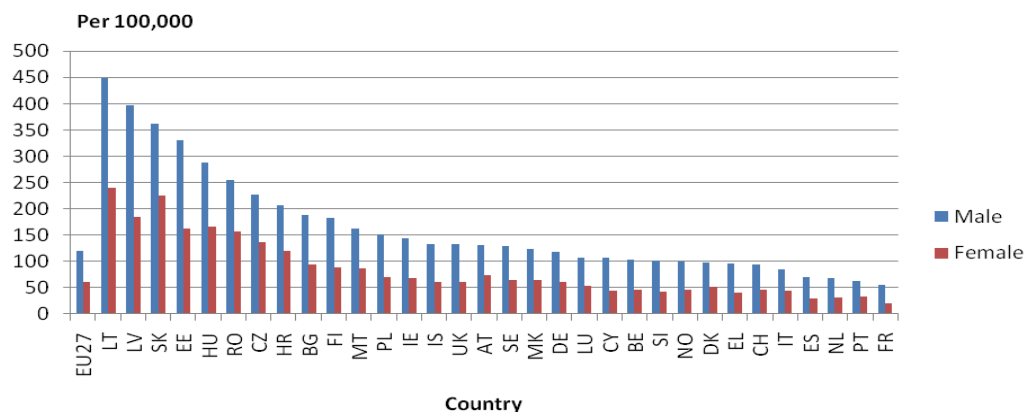
2.2.5 Ischemic Heart Diseases (IHD) and Cerebro-vascular Diseases (stroke)

The first of the two main types of cardiovascular diseases, IHD, was responsible for 360,000 deaths among men in the EU27 in 2008. This amounts to almost 15% of all mortality (among women IHD accounted for 330,000 deaths equivalent to 14% of all mortality).

The other main type of vascular diseases, stroke, leads to the death of almost 200,000 men in the EU every year, which constitutes about 8% of all deaths (among women the rate is 270,000 deaths, constituting 11% of all mortality).

The analysis of mortality rates by country caused by IHD and stroke demonstrates a more or less similar level to overall cardiovascular mortality.³⁰ IHD patterns are characterised mainly by an east-west disparity, with the highest rates in the Baltic States of Lithuania, Latvia and Estonia, together with Slovakia, and Hungary (Fig. 2.2.7).

Fig. 2.2.7 Age standardised mortality for Ischemic heart disease, by sex and country, all ages, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Highest-risk countries for stroke mortality are the countries of the Balkan region, Bulgaria, Macedonia, and Romania. It is also worth pointing out the considerable levels of stroke mortality in Mediterranean Portugal and Greece, which are characterised by low CVD mortality in general.

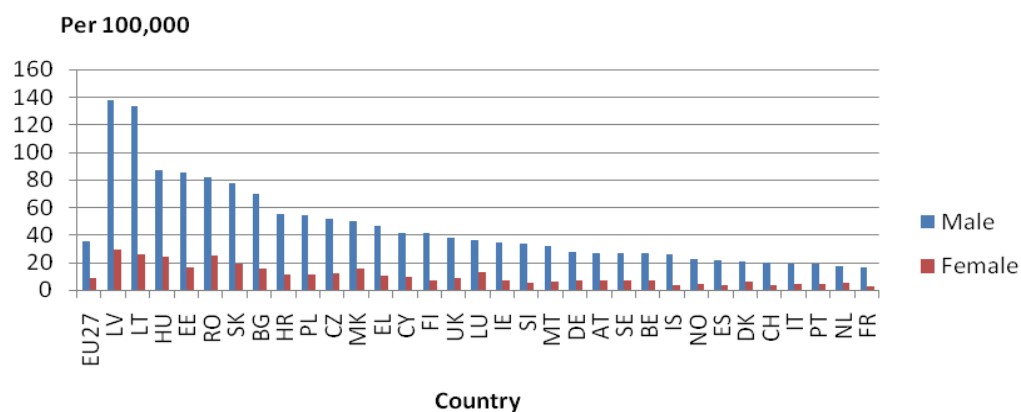
IHD in 2008 caused almost 80,000 deaths before 65 years of age in the EU, which constitutes 12% of all mortality (among women the figures are respectively 20,000 and 6%).

The highest-risk countries for young and middle-aged males are the Eastern Member States of the EU; Latvia, Lithuania, and Hungary (see Fig. 2.2.8). It is noteworthy that among the Western Member States of the EU one of the highest mortality rates was observed in Greece, which remains in contrast to

³⁰ However, it should be taken under consideration that in both the IHD and stroke sub-groups of cardiovascular mortality, the picture is less consistent than in cardiovascular mortality generally. This is possibly due to the quality of data (relatively higher rates were recorded in countries with good quality of registration, such as Finland, while relatively lower rates were recorded in countries with poorer quality of registration, such as Bulgaria, Romania or Poland).

the other Mediterranean countries with some of the lowest IHD premature mortality risk levels in Europe.

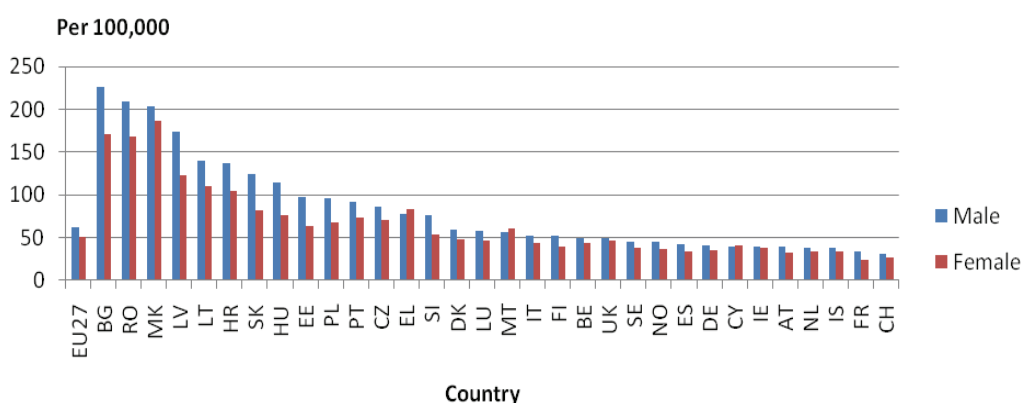
Fig. 2.2.8 Age standardised mortality for Ischemic heart disease, by sex and country, ages 0-64 years, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

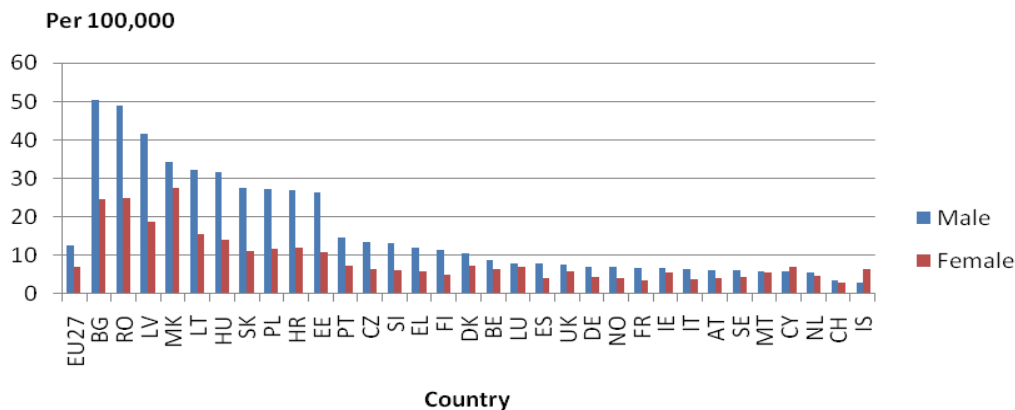
Stroke leads to about 28,000 deaths among men under the age of 65 years, which constitutes 4% of all premature mortality (among women the figures are 16,000 and 5%).

Fig. 2.2.9 Age standardised mortality for Stroke, by sex and country, all ages, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.2.10 Age standardised mortality for Stroke, by sex and country, ages 0-64 years, latest year¹



Eurostat hlth_cd_asdr. ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

2.2.6 References

- Britton A, McKee M (2000) The relation between alcohol and cardiovascular disease in Eastern Europe: explaining the paradox. *Journal of Epidemiology & Community Health* 54(5):328-332
- Mackenbach JP, Bos V, Andersen O et al., (2003) Widening socioeconomic inequalities in mortality in six Western European countries. *International Journal of Epidemiology* 32(5):830-837
- Mathers CD, Fat DM, Inoue M et al., (2005) Counting the dead and what they died from: an assessment of the global status of cause of death data. *Bull World Health Organ* 83(3):171-7
- Ritsatakis A, Makara P (2009) *Gaining health. Analysis of policy development in European countries for tackling non communicable diseases.* Copenhagen, WHO
- Zatoński W, McMichael AJ, Powles JW (1998) Ecological study of reasons for sharp decline in mortality from ischaemic heart disease in Poland since 1991. *BMJ* 316(7137):1047-51
- Zatoński W, Manczuk M, Sulkowska U (2008) *Closing the health gap in the European Union.* Warsaw, HEM project www.hem.waw.pl

2.3 Cancer

2.3.1 Main Points

- Cancer kills around 700,000 men in the EU27 each year which accounts for a 1/3 of all male deaths, with premature mortality affecting some 198,000 males under the age of 65 years.
- Men develop and die sooner from those cancers that should affect men and women equally.
- Tobacco is the largest single preventive cause of cancer death among men across Europe.
- Male cancer patterns are changing, lung cancer is declining but prostate cancer has become the most diagnosed among European males affecting around a million men.
- Lung cancer is on the decrease but will remain a major cause of premature mortality while tobacco products remain so freely available.
- Colorectal cancer is a leading cause of cancer death in Europe and requires population-based screening.
- Stomach cancer has steadily decreased in the last two decades although it is still one of the most leading cancers.
- Testicular cancer, despite effective treatment, still remains the first cause of cancer death among young males (20-35 years).
- Not all countries have a cancer plan that addresses how men's risk of cancer will be tackled.

2.3.2 Summary

Male cancer patterns are changing with a reduction in deaths as a result of stomach cancer and now lung cancer, but with an increase in cases of prostate cancer. Marked differences exist between countries in relation to the male burden of cancer. Men generally have a higher incidence rate for those cancers that should affect men and women equally and a higher rate of premature death. The gender differences are also evident with respect to survival rates, which are generally improving but still poorer in men.

The reasons for men's higher risk of developing and dying of cancer are multifactorial but tobacco remains the largest source of exposure to carcinogenic substances for men. Tobacco causes numerous localised and

systemic cancers (lung cancer, oral cancer, pharyngeal cancer, laryngeal cancer, oesophageal cancer, pancreatic cancer, kidney cancer, urinary bladder cancer, leukaemia's, etc). Tobacco is still the largest single preventive cause of cancer death among men across Europe.

2.3.3 Introduction

With an ageing European population and advances in both the prevention and management of cardiovascular disease, cancer is becoming the most significant cause of premature death in men. Around 700,000 men and almost 540,000 women die every year, which account for 29% and 22% respectively of all male and female deaths from all causes across the EU27.

In those aged under 65 years some 198,000 men and 143,000 women die every year from cancer, 31% and 45% respectively of total deaths from all causes. This higher proportion of women's deaths in these earlier years demonstrates the importance of cancer to overall premature death in women. With no significant sex-specific cancers for men during these early adult years, (in contrast to the situation found in women), male deaths are from cancers that should affect men and women equally. What is apparent from the emerging data, therefore, is that men are more likely to develop and also more likely to die prematurely from these cancers (White et al., 2010).

There are many causes of cancer, some originating through inherited factors, but most are as a result of lifestyle or the environment in which men live and work, including smoking, alcohol, diet, lack of physical activity and exposure to industrial chemicals either in factories or on farms (Danaei et al., 2005). In addition there is a growing awareness of the risks the male form of overweight and obesity play in the development of the fat-related cancers (Redinger, 2007). There may also be issues relating to delay in presentation with symptoms, which will reduce the treatment options.

2.3.4 Cancer survival

Another relevant factor when considering cancer mortality data relates to men and women's ability to survive cancer and how this differs across Europe (Verdecchia et al., 2007). The average survival rate in Europe is 47% among men and 56% among women. For most cancer sites, survival in countries from Northern Europe (over 60% in Sweden), Central Europe and Southern Europe

was substantially higher than in the United Kingdom and Ireland and in countries from Eastern Europe.

The difference in the survival rate between countries (or groups of countries) and between women and men depends very strongly on the structure of the illness. For example, in Scandinavian countries almost one-third of all diagnosed cancers are prostatic cases, which are characterised by good prognosis. Meanwhile, in Poland, Czech Republic and Slovenia, this cancer constitutes only around 10% of all diagnosed cancers.

An important element shaping the difference of survival between men and women is for example the much higher proportion of lung cancer with very bad prognosis among men, versus female breast cancer with relatively good prognosis. It must be remembered that survival on a population scale is significantly influenced by geography, demographic, social and economic factors connected with the selection of cancer patients and they are not only the result of better treatment.

With regard to other cancers the EUROCARE-4³¹ study noted that significant female advantages existed for head and neck, oesophagus, stomach, and pancreas, salivary glands, colon and rectum, lung, pleura, bone, melanoma of skin, kidney, brain, thyroid, Hodgkin's disease and non-Hodgkin's lymphoma. They also found a significant female disadvantage for biliary tract, leukaemia and Bladder (Micheli et al., 2009). Women had significantly higher survival rate than men for all cancers combined in each age class; however, this advantage reduced progressively with age: from +12.0% points at 15–44 years to +1.3% points at 75–99 years (p 1022). Age at diagnosis is a major determinant of women's advantage. A strong link to sex hormone patterns is implicated: with increasing age, the differences between men and women almost disappear.

2.3.5 Change in cancer risk

A change has been seen over the last century in the cancer risk to men. For example gastric cancer was by far the most frequent cancer localisation in the first half of the 20th century, becoming relatively rare in some European countries by its end for poorly understood reasons. At the same time, lung cancer rates rose with the cause both clear and very well defined. This increase

³¹ <http://www.eurocare.it/DatabaseEU4/tabid/78/Default.aspx> last accessed 12/12/10

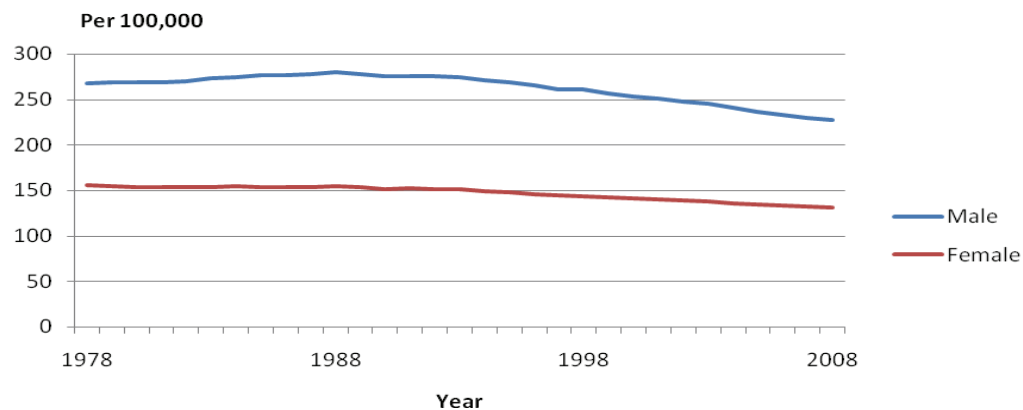
in lung cancer rates persisted almost throughout the entire century, taking the mortality levels from a few deaths to over 120/100,000 in regions such as Scotland in the last decades of the millennium (Boyle et al., 2008).

Apart from lung cancer, whose attributable risk to smoking amounts to about 80%-90% among European males, other tobacco-dependent cancers, whose attributable risks are lower (from 30% to 60%), also experienced steady increases. Among them are laryngeal cancer, pharyngeal cancer, oral cavity cancer, urinary bladder cancer, kidney cancer, and pancreatic cancer. The increase in lung cancer incidence and other tobacco-dependent cancers by far outweighs the decrease observed in gastric cancer, leading to a general increase of cancer morbidity among European males. At the end of the century, lung cancer (and other tobacco-dependent cancer localisations) dominates the cancer pattern for European men.

The other two important cancer sites are colorectal and prostate cancers. In the last decades they became the most frequent cancers for men together with lung cancer. Another localisation illustrating the problem of cancer among males is testicular cancer. It belongs to one of the rarer cancers, but its prevalence has dramatically increased over the last 60 years in most European countries for still unknown reasons.

All cause cancer incidence and mortality rates started to fall in the last decades of the 20th century, followed by a decrease in cancer death rates (Fig. 2.3.1). In the male population this phenomenon first started in the late 1980s in Western Europe. About 10 years later in some countries that now constitute the eastern part of the EU, mortality rates also began to decline (for example in the Czech Republic, Hungary, Poland); usually from a higher level and at a slightly slower rate than in the countries of Western Europe.

Fig. 2.3.1 Time trends of all cancer mortality, by sex, all ages, EU27, 1978-2008



Source: WHO Morticd10

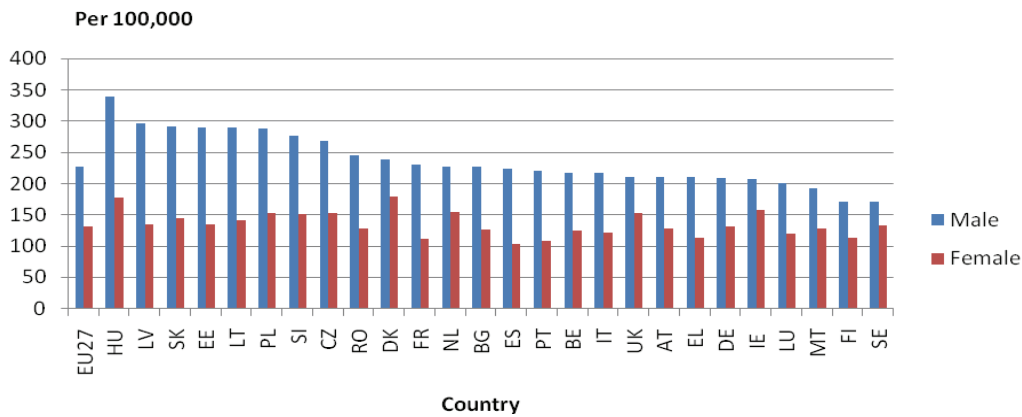
The decrease in age-adjusted mortality rates among European men is observed in all age groups, but it occurred faster in the younger age groups. In the absolute number of deaths, a decrease is observed only in the under 65 age group; from 223,000 in 1990 to 198,000 in 2008. In the oldest population group, over 65 years of age, the absolute number of deaths continues to steadily increase (from about 400,000 in 1990 to 500,000 in 2008) which is partly the result of the growth of the segment of population over 65 years of age.

The incidence and mortality levels for cancer in women began to decrease in the last part of the 20th Century. The change was significant, although the decline started from a much lower starting point than for the male population. However, in the Eastern part of the EU the decline is much less marked. Nonetheless, similarly to men, the general all-cancer trend was the result of declining stomach cancer incidence, increasing lung cancer incidence (although less so than among men), and the increasing risk of breast cancer. A special case for women is cervical cancer which, in the early 20th century, was along with stomach cancer the most frequent female cancer localisation. At the beginning of the 21st century with the introduction of population-based early diagnostics, treatment and more recently vaccination it has become an extremely rare cause of morbidity and death in some European countries.

Male cancer mortality rates in the EU27 are showing a twofold difference. The highest mortality rates are observed mainly in the eastern part of the EU

(Hungary, Latvia and Slovakia). The lowest mortality rates are observed in Sweden, Finland, Malta and Luxembourg (Fig. 2.3.2).

Fig. 2.3.2 Age standardised death rates for cancer, by sex and country, all ages, latest year¹

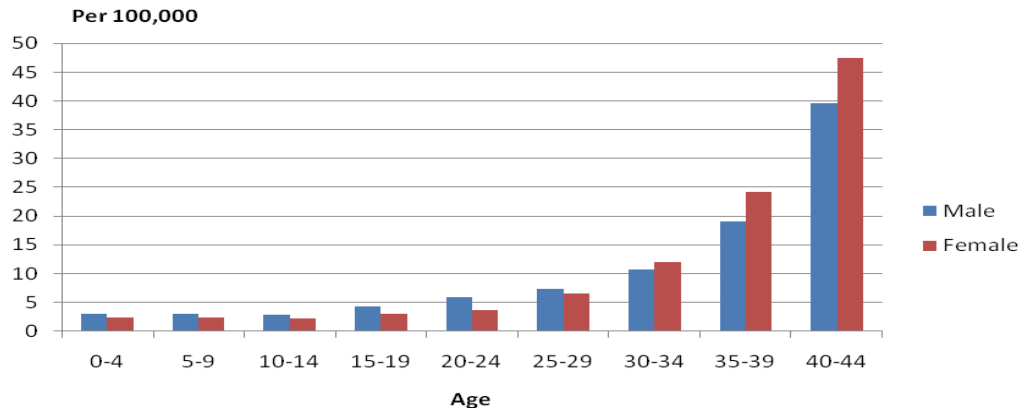


Source: WHO Morticd10¹ 2008 except FR, IT, SE, UK (2007). DE, DK, LU (2006). ES, PT, SK (2005). BE (2004)

The cancer mortality differences among women are similar to those among men. The highest rates can be found in Denmark and the lowest in Estonia and Portugal. The high-risk Eastern Europe and lower risk Western Europe trend is even less apparent than among men. For instance, female cancer mortality in Denmark is the highest in the EU.

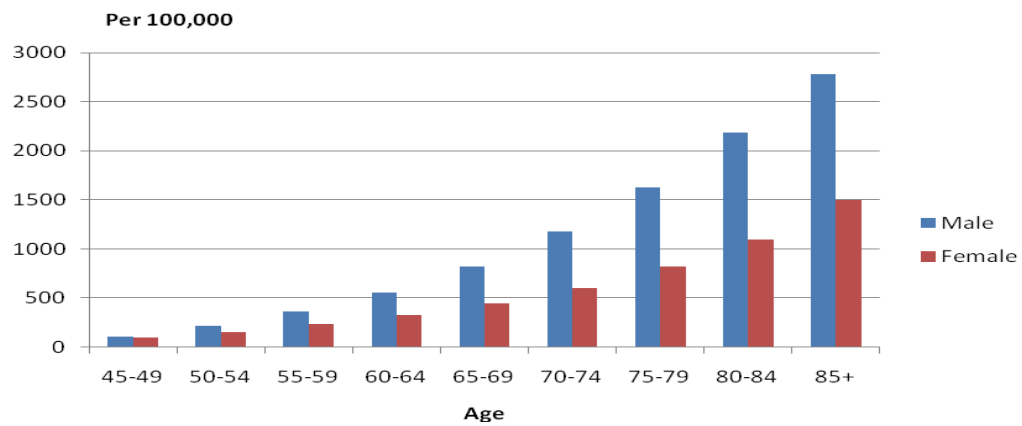
The male to female profile of cancer deaths changes with age: more young men and boys dying (mainly of cancers related to congenital problems); more women dying in the middle years; more men than women die in older age (Fig. 2.3.3 & Fig. 2.3.4). If the sex specific cancers are removed from the data the profile shows a far higher proportion of men dying from other cancers (White et al., 2010). The male excess of cancer death rates for non-sex specific cancers persists across the age range.

Fig. 2.3.3 Age specific death rates for all cancers, by sex, ages 0-44 years, EU27, 2008



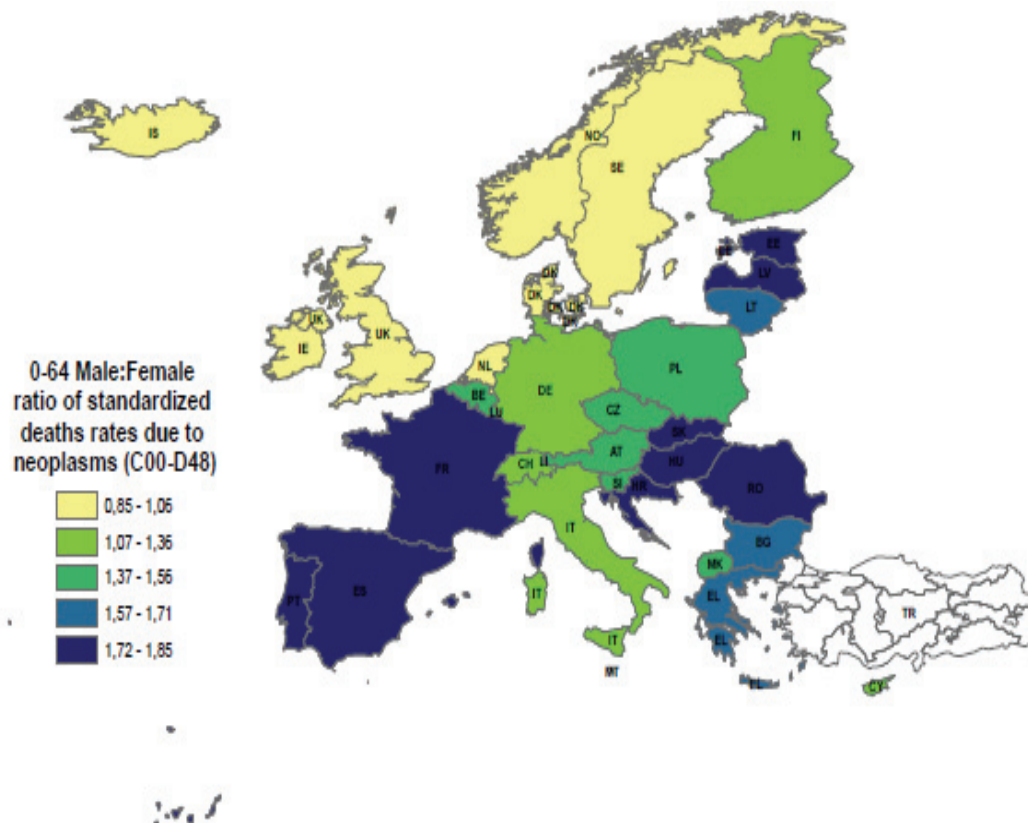
Source: WHO Morticd10

Fig. 2.3.4 Age specific death rates, all cancers, by sex, ages 45+ years, EU27, 2008



Source: WHO Morticd10

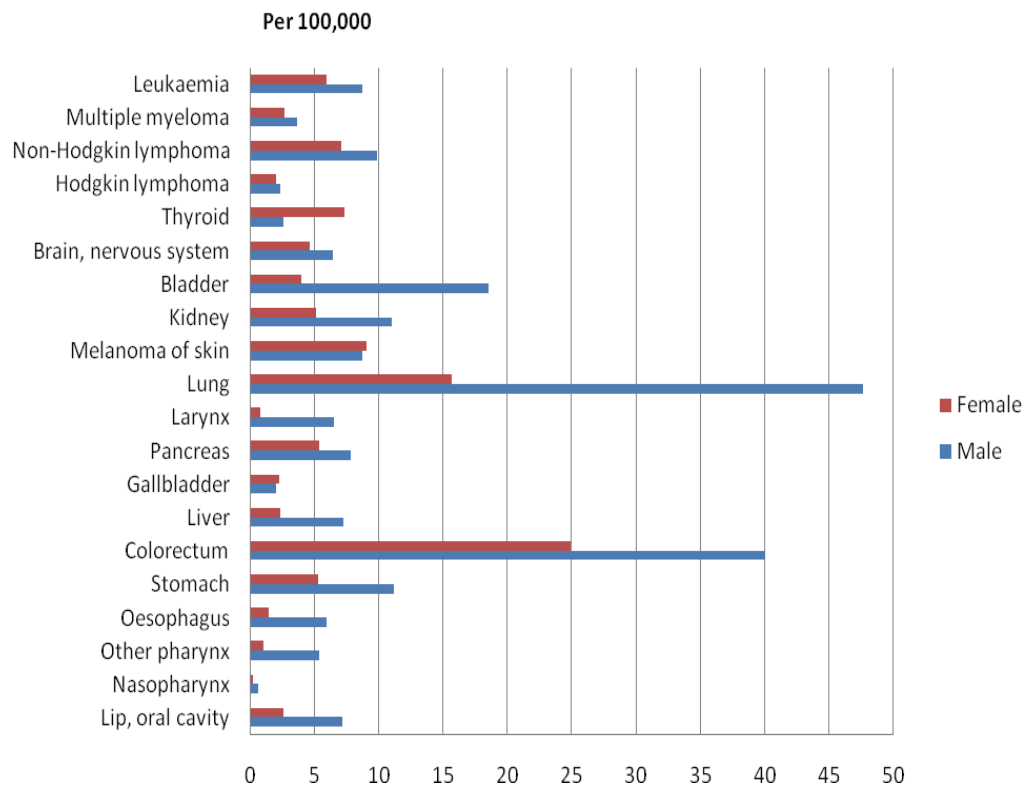
Map 2.3.1 Male to female ratio of standardized deaths rates, due to neoplasms, ages 0-64 years, EU27, 2008



Source:

This high level of premature mortality is mirrored in the incidence rates for all the major cancers that are not sex specific (Fig. 2.3.5). As many of these are not directly associated with tobacco consumption this higher incidence suggests that the problems of men and cancer are not limited to those influenced by smoking, but are affected by other lifestyle factors. It also compounds any problems men may have with accessing services as they are not just more likely to die from the cancer but more likely to develop them as well.

Fig. 2.3.5 Age standardised incidence rates for the major cancers, by sex, EU27, 2008



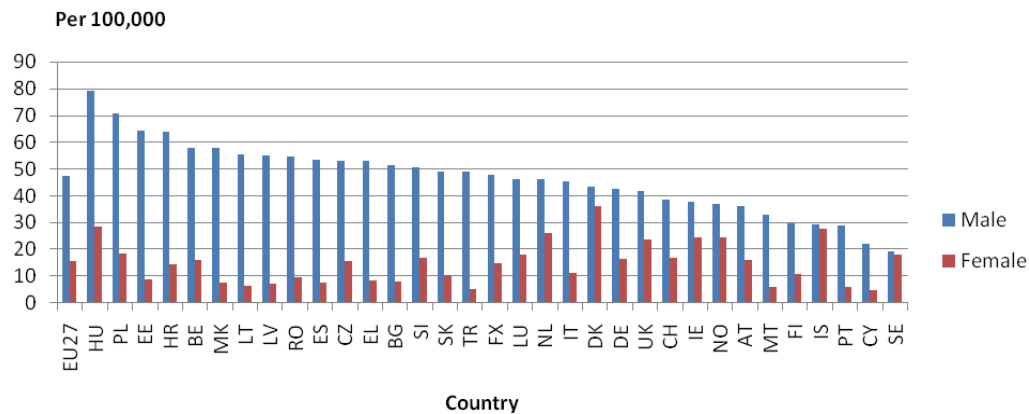
Source: Globocan - Ferlay et al., 2008

2.3.6 Lung cancer

The dominating cause for lung cancer in Europe is cigarette smoking; but its causative link was only discovered in the middle of the last century (Doll & Hill, 1950, Wynder & Stellman 1977). Tobacco control policies from the 1980's have led to a reduction in smoking prevalence, which has led to a persisting decrease in lung cancer morbidity and mortality levels. The decrease in lung cancer incidence began in Western European countries and has spread to Eastern Europe in recent years (Peto et al., 2004).

The current incidence rate for lung cancer is 47.6/100,000 for men and 15.6/100,000 for women. Lung cancer death rates in some Eastern European countries are 3 or 4 times greater compared to the lowest incidence rate in Sweden (Fig. 2.3.6). It is noticeable that in some countries the female incidence rate is approaching that of males (e.g., Denmark, Iceland and Sweden).

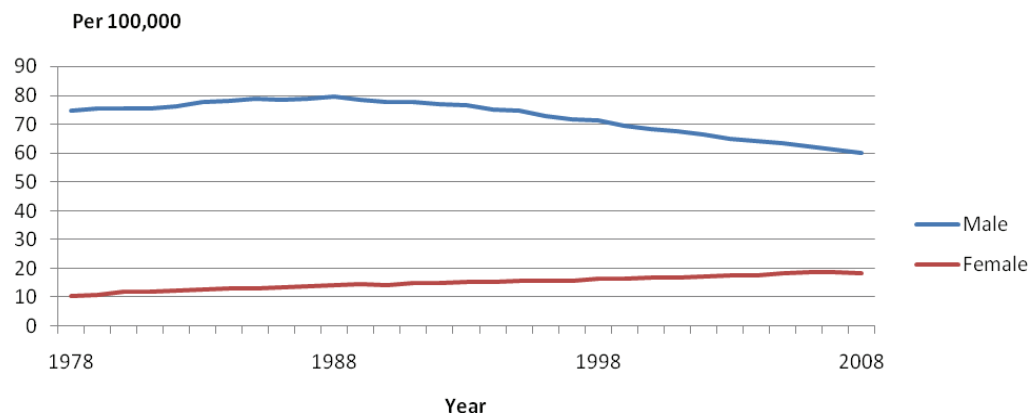
Fig. 2.3.6 Age standardised incidence rates for Lung cancer, by sex and country, EU27, 2008



Source: Globocan - Ferlay et al., 2008

The case-fatality rate for lung cancer is very high with the mortality rates being almost equal to the morbidity rates. The increase in lung cancer morbidity that persisted through the majority of the 20th century reached its peak in the EU in the second half of the 1980s. Since that time a decrease in morbidity and mortality among men has been observed (Fig. 2.3.7). The decrease began first among young adult males (20-44) and then among middle aged males (45-64), to finally affect the 65+ population. The prevalence of incidence and death adjusted for age fell from 80/100,000 in 1985 to circa 60/100,000 in 2008, recording a decrease of 25%. In this period the largest decrease was observed among the youngest age group (20-44); just over 50%. The mortality rates for young adult men equalised with female mortality rates in the same age group in the last decade of the 21st century because of the increase in female smoking rates (Zatoński et al., 2008; Peto et al., 2000).

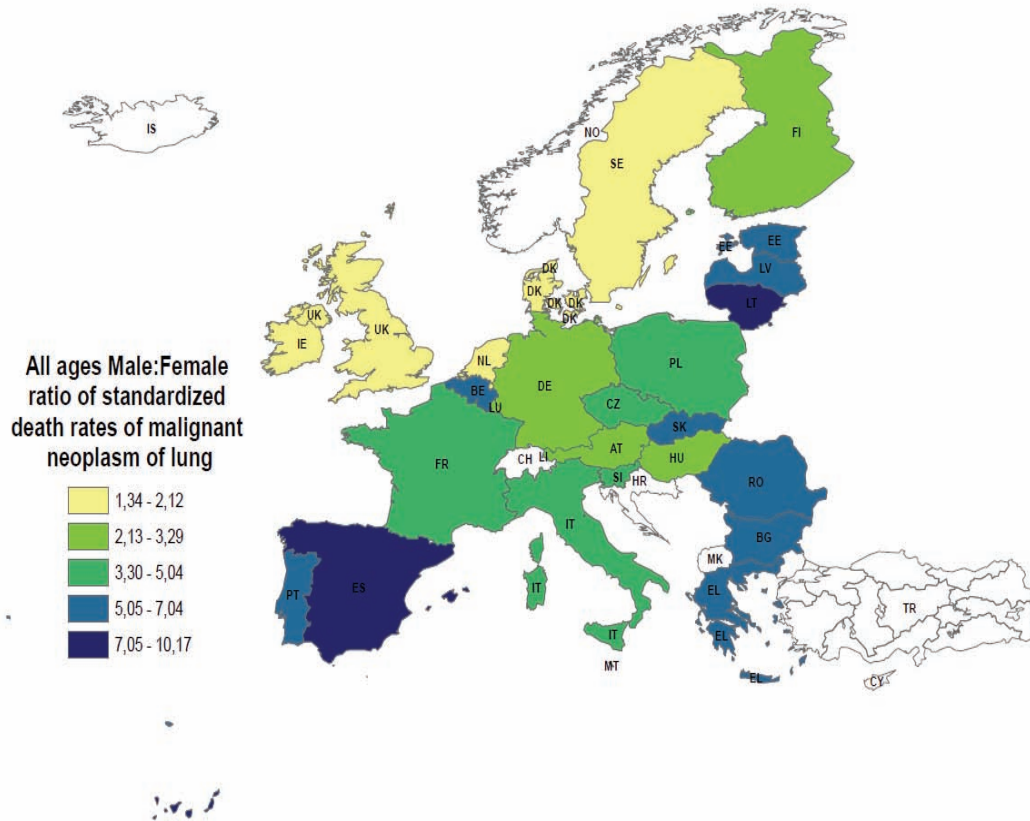
Fig. 2.3.7 Time trends of Lung cancer mortality, by sex, all ages, EU27, 1978-2008



Source: WHO Morticd10

In 2008 around 180,000 males died from lung cancer in the EU27, with around 60,000 of these deaths being in men under the age of 65 years, which constitutes circa 10% of all deaths for all age groups before 65 years of age. Lung cancer deaths for women in the same year amounted to 70,000 for the entire female population and 23,000 for women under 65 years of age. This constitutes circa 7% of all deaths. This constitutes about 8% of all deaths. Lung cancer male/female ratio is 3.3:1. The sex ratio ranges from 8-10:1 in Latvia, Lithuania and Spain; while it amounts to 0.9 in Iceland, 1.2:1 in Sweden and 1.4:1 in Denmark.

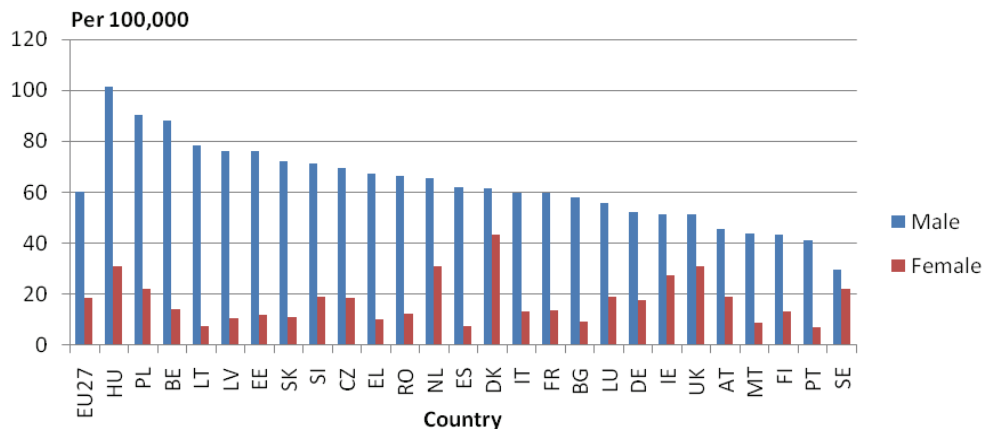
Map 2.3.2 Male to female ratio of standardized death rates of malignant neoplasm of lung



Source:

The average level of mortality rates for EU countries amounted in 2008 to 60/100,000 for men and 18/100,000 for women. The age-adjusted lung cancer mortality rates by country among men ranged from 106/100,000 in Hungary to 28/100,000 in Sweden (Fig. 2.3.8).

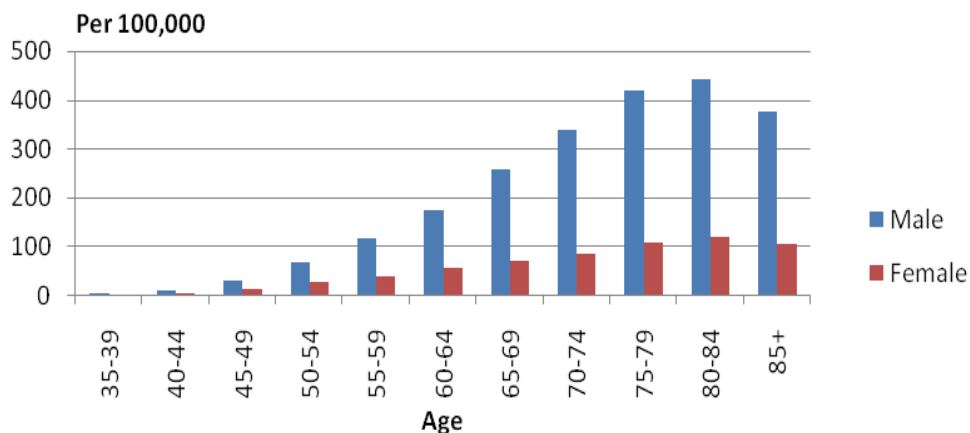
Fig. 2.3.8 Age standardised death rates for Lung cancer, by sex and country, all ages, latest year¹



Source: WHO Morticd10¹ 2008 except FR, IT, SE, UK (2007). DE, DK, LU (2006). ES, PT, SK (2005). BE (2004)

The large differences in death rates between men and women are evident across the life span (Fig. 2.3.9).

Fig. 2.3.9 Age specific death rates for Lung cancer, by sex, EU27, 2008



Source: WHO Morticd10

The history of lung cancer is a significant example showing that epidemiology is a foundation for successful primary prevention. This has required the organised efforts of society in restricting advertising and sales to minors. It has included legislation banning smoking in workplaces (Allwright et al., 2005), in enclosed public places (for example in UK, IE, MT) and better funded health promotion campaigns. It is true to note that not all the EU27 Member States have such rigorous enforcements in place.

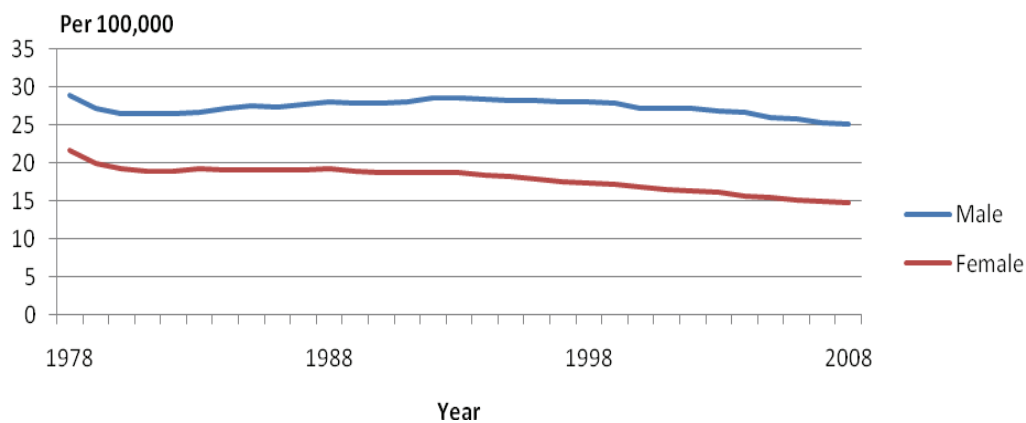
2.3.7 Colorectal cancer

Cancers of the colon and rectum (colorectal cancer) constitute a significant proportion of the male burden of cancer morbidity and mortality. Annually in the European Union 183,000 men and 150,000 women are diagnosed with colorectal cancer: 78,000 men and 67,000 women die from this disease. This constitutes around 11% of all cancer mortality (12% for women). There is a marked age effect for men.

Its prevalence and preventable nature make colorectal cancer one of the primary focus points of cancer control. A substantial amount of proof has demonstrated that screening for colorectal cancer is effective in reducing the mortality from this disease (NICE, 2004).

Generally, colorectal cancer rates have fallen since the early 1980s in Western European countries. In Eastern Europe, mortality rates were generally higher until the early 2000s, when the rate of increase started to fall, such that the overall reduction is less marked (Fig. 2.3.10).

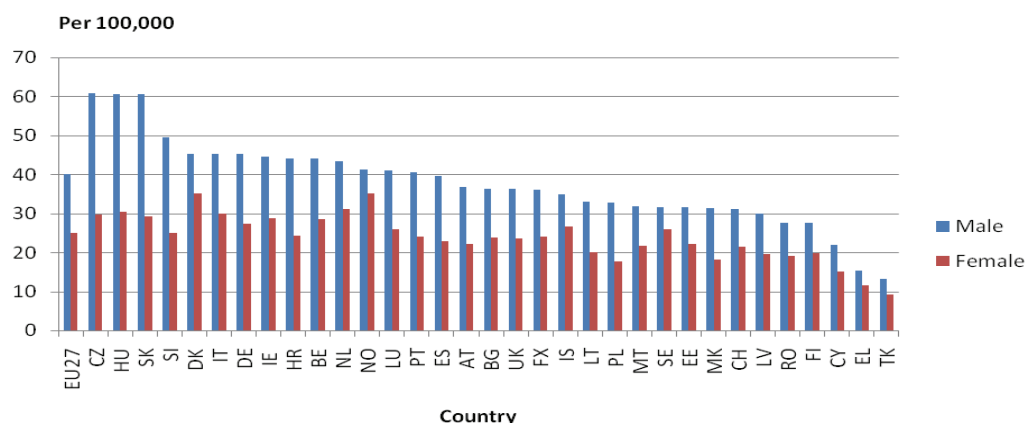
Fig. 2.3.10 Time trends of Colorectal cancer mortality, by sex, all ages, EU27, 1978-2008



Source: WHO Morticd10

Colorectal cancer predominantly affects those over 65 years (almost 80% of all colorectal cancer deaths occur in this age group).

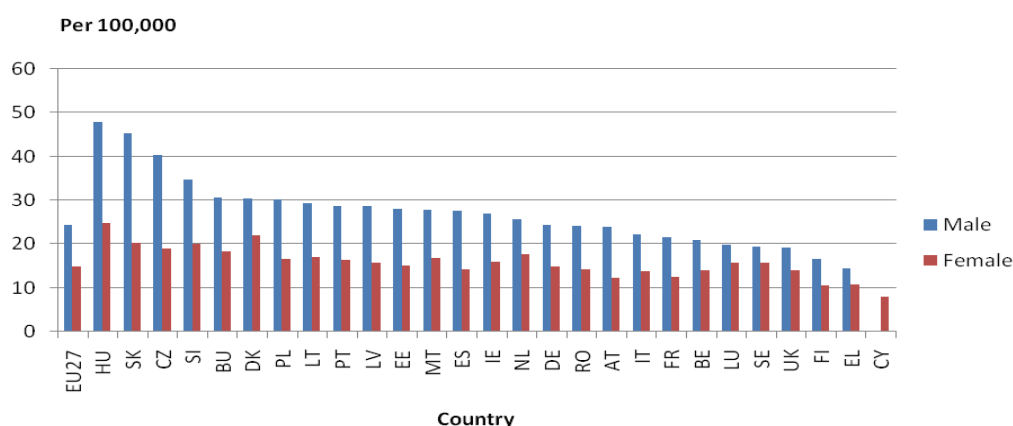
Fig. 2.3.11 Age standardised incidence rates for Colorectal cancer, by sex and country, 2008



Source: Globocan - Ferlay et al., 2008

The average age-standardised colorectal mortality rate in 2008 for the EU27 in men was 25/100,000. However, the mortality rates range from around 48/100,000 in Hungary, Slovakia and Czech Republic (the highest rates in Europe), through to around 30/100,000 in Slovenia, Estonia and Denmark, to the lowest rates, around 21/100,000 in Sweden, Luxembourg and Belgium, to 16/100,000 observed in Greece and Finland (Fig. 2.3.12).

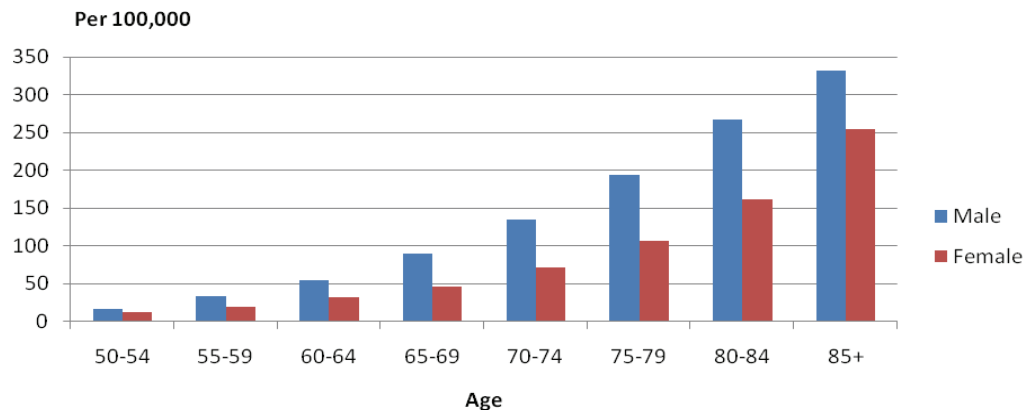
Fig. 2.3.12 Age standardised death rates for colorectal cancer, by sex and country, all ages, latest year¹



Source: WHO Mortcid10¹ 2008 except CY, FR, IT, SE, UK (2007). DE, DK, LU (2006). ES, PT, SK (2005). BE (2004)

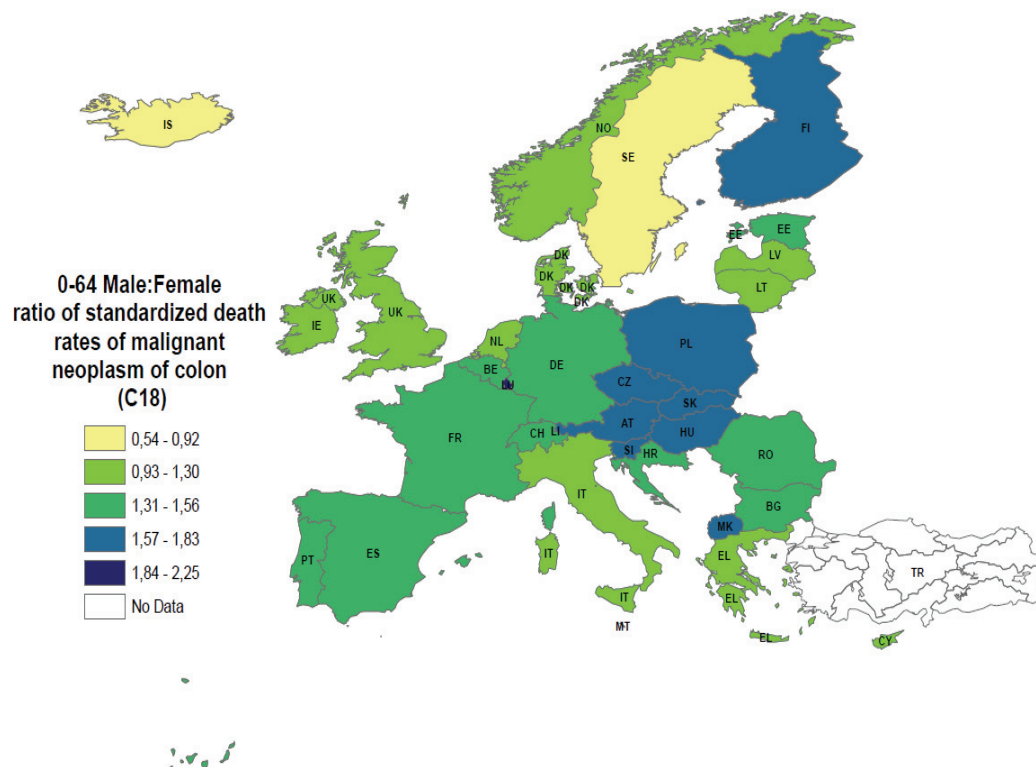
The higher rate of death mirrors the incidence data at being about 5-10 years ahead of women, which has implications for the age screening programmes begin (Fig. 2.3.13).

Fig. 2.3.13 Age specific death rates for Colorectal cancer, by sex, EU27, 2008



Source: WHO Morticd10

Map 2.3.3 Male to female ratio of standardized death rates of malignant neoplasm of colon



Source:

Better diet, early diagnosis and treatment seem to be the key for reducing and subsequently diminishing the burden of colorectal cancer. The experience in New York, where colorectal cancer preventive programmes were introduced on

a population-wide basis, is very encouraging (Frieden et al., 2008). In this initiative a 'get checked for cancer' had a goal of 60% uptake of over 50 year olds by 2008 and between 2002 and 2006 they saw a 43% increase in uptake.

2.3.8 Prostate cancer

Despite the significant advances in the treatment of prostate cancer, it remains a growing problem for men's health. Benign prostate diseases affect over 50% of men over 50 (see Section 2.7). In the EU in 2008, 350,000 new cases of prostate cancer were diagnosed, and around 70,000 men died of this disease. Currently, around 3 million European men are living with prostate cancer. This number will grow due to population ageing. Prostate cancer affects almost exclusively the over 65 age group, which accounts for over 92% of its mortality. Prostate cancer has a higher incidence in certain ethnic groups, most prominently African Caribbean men. The incidence is also higher in first degree relatives where there is an up to 5 times higher risk of developing the disease (John & Houlston, 2003).

From the beginning of 1960s, there has been a slight growth of prostate cancer incidence (not mortality). However, it was in North America that the most dramatic increase occurred. The level of incidence growth, especially in the years 1985-1992 in the USA (from 100/100,000 to 200/100,000 new registered prostate cancer cases), was significantly higher than anywhere and anytime in Europe. It was the introduction and increased availability of prostate specific antigen (PSA) testing that played the main role in bringing about this change. Those significant and dramatic differences in the number of new cancers registered are not reflected in prostate cancer mortality. For example, the age-standardised mortality rates from prostate cancer in England, Wales and USA in the years 1971-2000, demonstrate an identical course and level (Quinn & Babb, 2002).

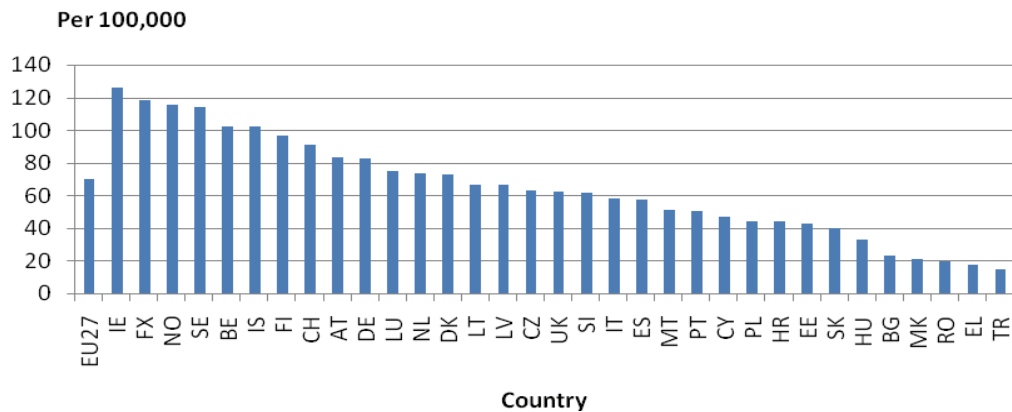
The reason for this apparent discrepancy is that the majority of prostate cancer cases are slow growing and do not pose an immediate threat to the individual, with many men dying with the disease rather than of it. There is, however, a type of prostate cancer that can occur in younger, as well as older, men, which is more aggressive and leads to a more rapid death if un-detected earlier enough. These 'tiger tumours' are very different from the majority of slow growing tumours that affect the majority of men.

The increased use of PSA screening during the last decade resulted in a problem of too many non-life threatening prostate cancer cases being identified. This led to unnecessary treatment with long term side effects in Europe as well as the USA (Brewster, 2000, Desai et al., 2010). In the European Randomised Study of Screening for Prostate Cancer (ERSPC) of 182,000 men followed up over 9 years the intention to screen analysis showed a 20% reduction in deaths from prostate cancer but further analysis showed that in order to prevent 1 cancer 1,410 men would have to be screened and a further 47 would have to be treated (Schröder et al., 2009). Large scale US and UK epidemiological interventions are available but all seem to be undecided on the benefits and risks of screening and subsequent interventions. The UK National Screening Committee has now decided against a screening programme for prostate cancer (Mackie, 2010).

With our incomplete understanding of the causes of prostate cancer the key to prostate cancer control is the effective diagnosis and treatment of clinical cases. This means investigating symptomatic men with unexplained symptoms of erectile dysfunction, haematuria, back and bone pain and weight loss. It also means better clinical vigilance in ethnic groups such as Afro-Caribbean's and those men with first degree relatives with prostate cancer and breast and bowel cancer. Individual treatment for each patient needs to include a digital rectal examination and a PSA which have their individual limitations but in the context of a symptomatic or high risk man are a good clinical approach.

Currently there are about 70 new cases per 100,000 across the EU27 each year. However, this varies considerably between states ranging from 1 per 100,000 in Turkey to over 123 per 100,000 in Ireland (Fig. 2.3.14).

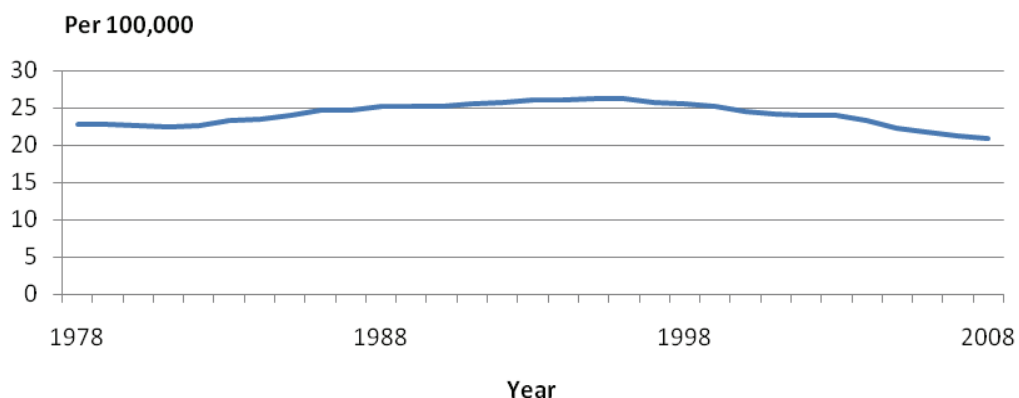
Fig. 2.3.14 Age standardised incidence rate for Prostate cancer, by country, 2008



Source: Globocan - Ferlay et al., 2008

With regard to mortality trends there has been only a slight increase in mortality over the last 30 years. For example, the increase in the EU27 took the mortality levels from about 20/100,000 in the early 1970s to just over 26/100,000 in the early 1990s. The mid-1990s marked the peak of the mortality levels and since then in some European countries a decrease has been registered to a current EU27 level of 21/100,000 (Fig. 2.3.15).

Fig. 2.3.15 Time trends of Prostate cancer mortality, all ages, EU27, 1978-2008

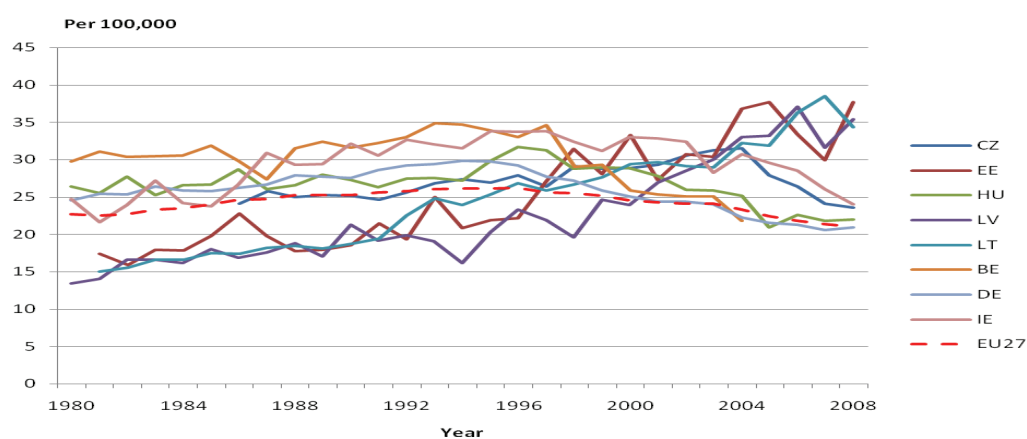


Source: WHO Morticd10

Generally, until the 1990s an increase of prostate cancer mortality was observed in Western Europe. Towards the end of the 1990s this trend started to decline in the majority of Western European countries and in the case of countries such as Germany, Belgium or Ireland quite dramatically. In the

Eastern part of the EU the three Baltic states (Lithuania, Latvia and Estonia) have demonstrated a dramatic increase in prostate cancer mortality, from around 15/100,000 in 1980 to around 35/100,000 at the end of the first decade of the 21st century (Fig. 2.3.16). In the other East European EU Member States, mortality rates were increasing much slower until the year 2000, after that, in some countries (Hungary, Czech Republic, Slovakia), a decrease has been observed.

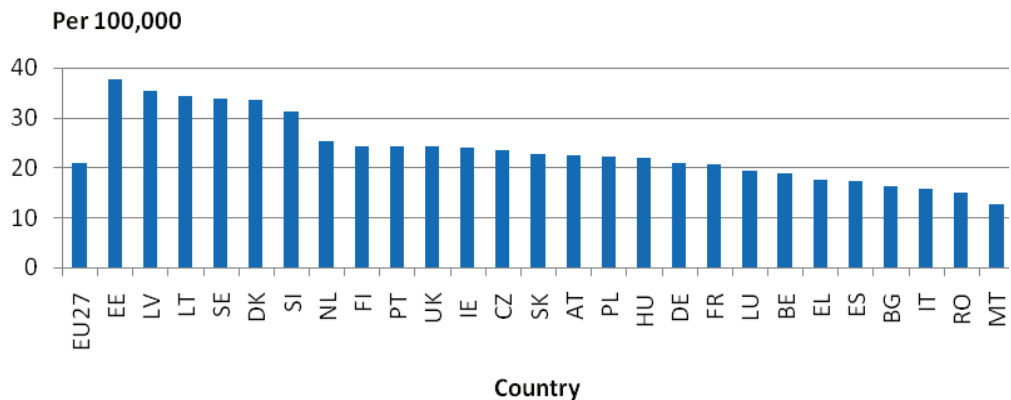
Fig. 2.3.16 Time trends for Prostate cancer mortality, all ages, selected countries, 1980-2008



Source: WHO Morticd10

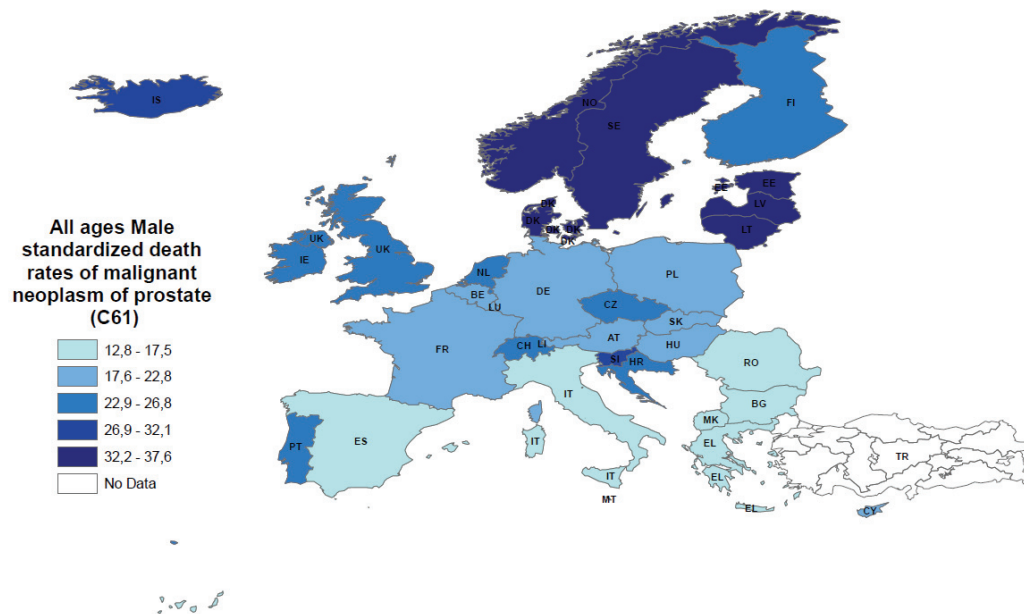
In 2008 around 70,000 men in the EU died of prostate cancer. This constitutes about 10% of all male cancer deaths and almost 3% of all male deaths. Over 92% of these deaths occurred in the oldest age group (65+). Mortality rates vary across the EU, ranging from over 35/100,000 in Estonia and Latvia to 15/100,000, in Malta and Romania (Fig. 2.3.17). Of the Western European states Sweden and Denmark are noticeable at both having a rate of over 33/100,000, nearly a ¼ higher than the nearest other Western state. Mortality rates differ between the different states within the European Union.

Fig. 2.3.17 Age standardised death rates, malignant neoplasm of Prostate, by country, all ages, latest year¹



Source: WHO Morticd10¹ 2008 except FR, IT, SE, UK (2007). DE, DK, LU (2006). ES, PT, SK (2005). BE (2004)

Map 2.3.4 Male standardized death rates of malignant neoplasm of prostate



Source:

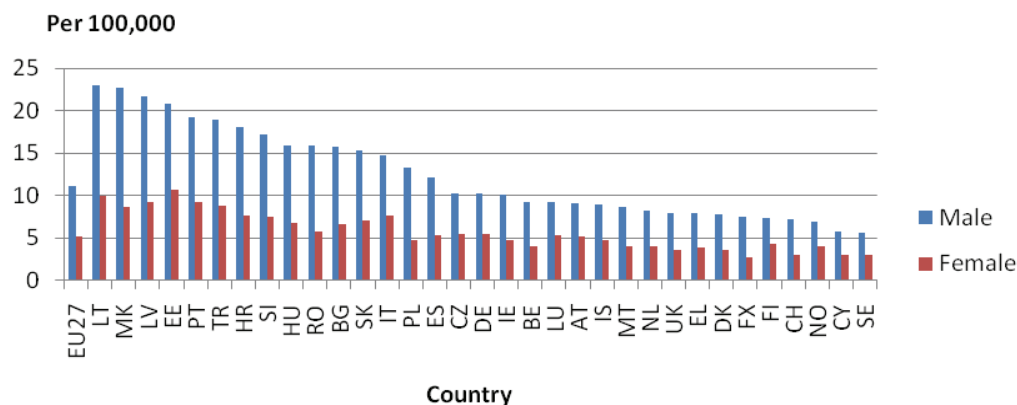
2.3.9 Gastric cancer (GC)

Until the middle of the 20th century gastric cancer was the most common cancer among European men and since that time the incidence and mortality rates, as well as the absolute number of deaths, are decreasing steadily and persistently in all EU countries, all age groups and both sexes. This reduced cancer risk is complex and not fully understood, although it is assumed that changes in diet,

including an increase in fruit and vegetable consumption, as well as the introduction of low-temperature technology for food storage and the control of helicobacter pylori infection, are the most important factors for those changes (Howson et al., 1986, Yamaguchi & Kakizoe, 2001). It seems that similarly to the last 50 years, a further appreciable decline is likely in the near future.

The decrease in incidence has made it a relatively rare disease in many EU countries, such as Scandinavia, Cyprus and Switzerland. However, there is still nearly a 5-fold variation among the countries of the European Union in incidence. The incidence is particularly high in Eastern Europe and in Portugal, and is about twice as high among men than among women, making this still an important health problem in many regions of Europe (Fig. 2.3.18).

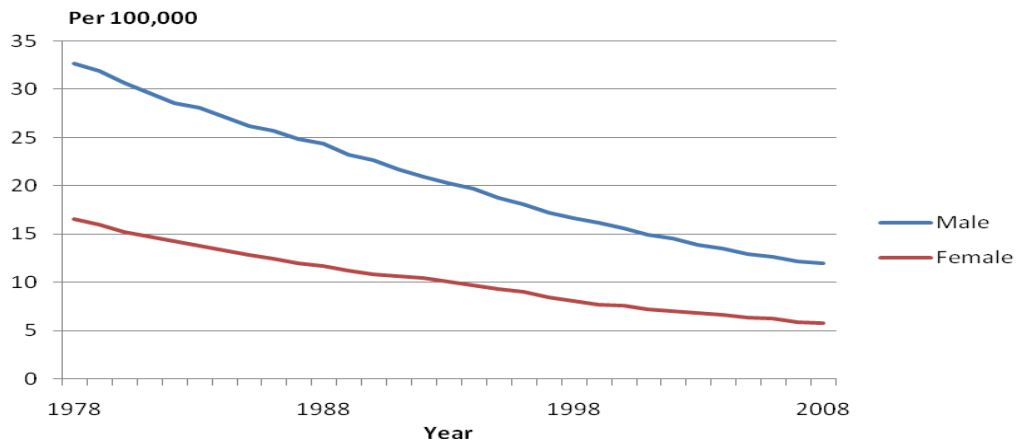
Fig. 2.3.18 Age standardised incidence rate for Stomach cancer, by sex, and country, 2008



Source: Globocan - Ferlay et al., 2008

For the last three decades a substantial decrease in gastric cancer deaths has been observed in all European countries. Age-adjusted mortality rates for gastric cancer in men in the last 30 years decreased from 32/100,000 to around 12/100,000 in the end of the first decade of the 21st century (Fig. 2.3.19).

Fig. 2.3.19 Time trends of Stomach cancer mortality, by sex, all ages, EU27, 1978-2008

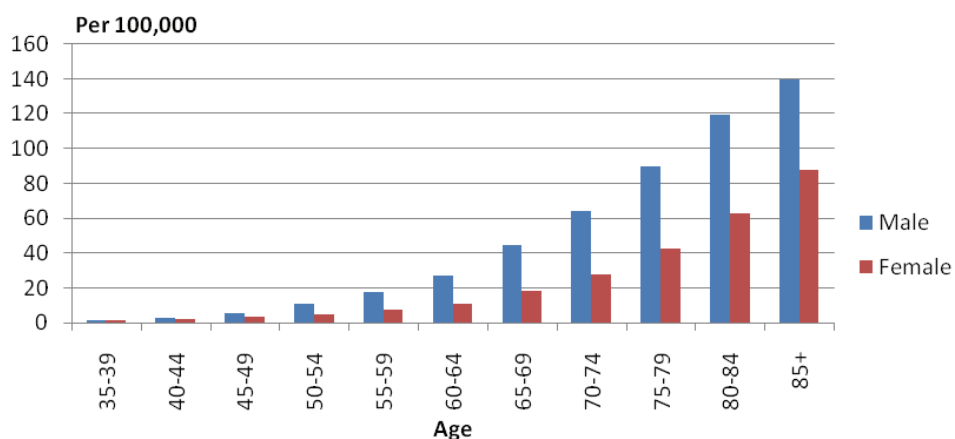


Source: WHO Morticd10

Similar to lung cancer, gastric cancer is characterised by a high case fatality rate (5-years relative survival is below 25% in most countries). As a result the incidence and mortality rates are very close.

Towards the end of the first decade of the 21st century gastric cancer causes 37,000 male deaths every year; 10,000 of those deaths occur before the age of 65 years of age. Deaths constitute a little more than 5% of all cancer deaths and 1.6% of all deaths among males. Across the age range men are at a higher risk of dying from this disease (Fig. 2.3.20).

Fig. 2.3.20 Age specific death rate for Stomach cancer, EU27, 2008

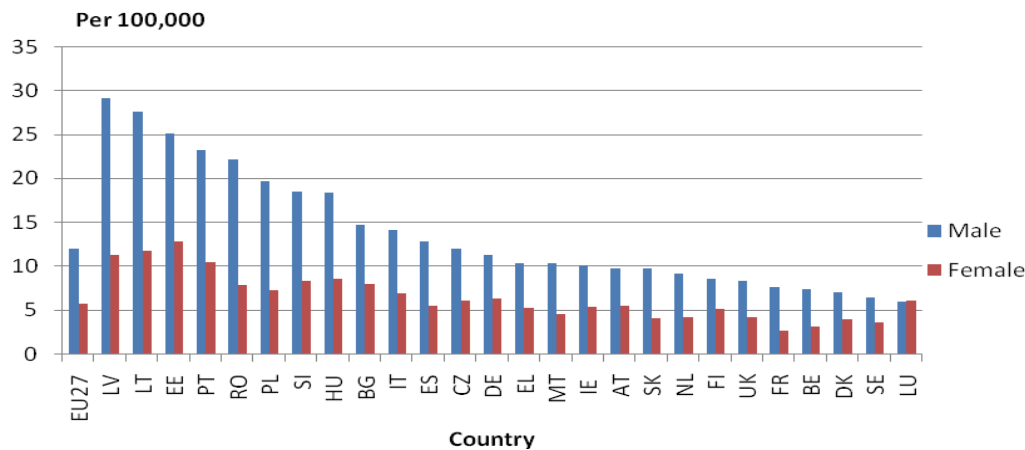


Source: WHO Morticd10

Mortality for men in the EU amounts to 12/100,000 at the end of the first decade of the 21st century. The highest mortality rates are observed in the

Baltic States (Latvia, Lithuania, Estonia), and in Portugal. The lowest mortality rates are observed in Luxembourg, Sweden, Denmark, Belgium and France (Fig. 2.3.21).

Fig. 2.3.21 Age standardised death rates for Stomach cancer, by sex, and country, all ages, latest year¹



Source: WHO Morticd10¹ 2008 except FR, IT, SE, UK (2007). DE, DK, LU (2006). ES, PT, SK (2005). BE (2004)

2.3.10 Testicular cancer (TC)

Testicular cancer is the most common malignancy amongst young adult men (20-44 age group) in Europe. On a population scale, testicular cancer deaths are, however, becoming quite rare; fewer than 1,000 deaths out of over 15,500 new cases annually in Europe and constitutes 1%-1.5% of all male cancer deaths.

In the 1970s a breakthrough in the treatment of testicular cancer occurred with comprehensive treatment, including chemotherapy, radiotherapy and surgery. The treatment of TC is characterised by excellent cure rates; 95% of cure for early stages of TC, and slightly less in more advanced stages of the disease, becoming the best example of a controllable human cancer. Nevertheless the availability of specialist centres is of paramount importance for successful testicular cancer treatment (Albers et al., 2009).

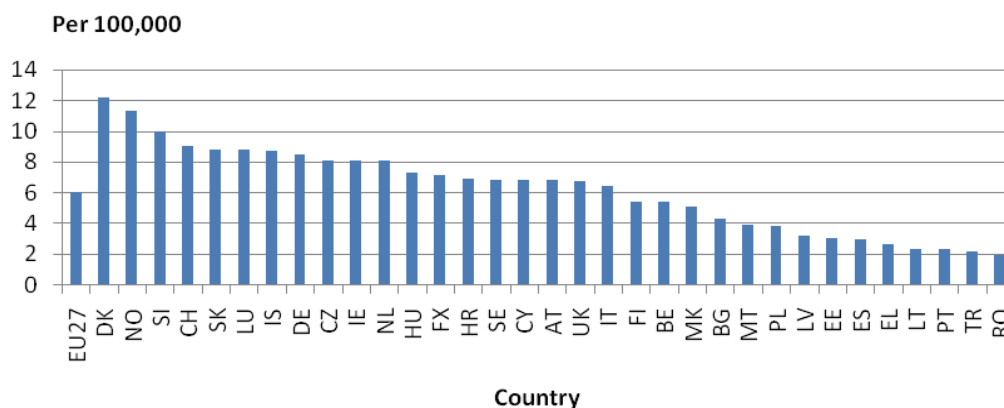
Since the causes of testicular cancer are still unknown, the only effective control is through early diagnosis and treatment. Although a successful treatment of TC seems possible in every phase of its development (also in advanced stages), the main challenge of testicular cancer seems to be earlier and better diagnosis.

A key element of the programme should be awareness and education campaigns promoting earlier diagnosis in order to decrease mortality. Such campaigns seem to be very effective; for instance as a result of an intervention undertaken in one of the regions of the UK (Kahdra & Oakeshott, 2002) the delay of diagnosis was decreased from 5 to 2 months. This type of intervention offers a successful model of health promotion.

Testicular cancer incidence and mortality/age curve displays a bimodal pattern, which is different to other cancers. The frequency increases after the age of about 15 years to reach the first peak at the age 25-30, after which it is declining to the age of about 60, and then starts to increase again.

Over the last 60 years there has been a steady increase in testicular cancer morbidity in almost all countries. In the beginning of the 21st century testicular cancer incidence in Europe oscillates around 3/100,000 to 6/100,000, with the highest rates in Denmark and Norway (over 11/100,000) (Fig. 2.3.22). The reason for this difference is not clear.

Fig. 2.3.22 Age standardised incidence rate for Testicular cancer, by country, 2008

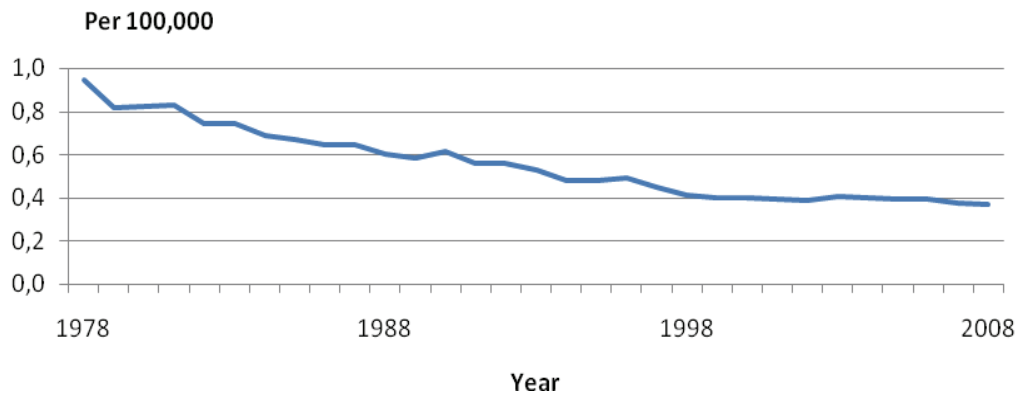


Source: Globocan - Ferlay et al., 2008

The introduction of effective testicular treatment led to a sudden drop in testicular cancer mortality in the vast majority of European countries. The decrease occurred first in Western European countries (in the 1970s), which were followed by Eastern Europe (beginning mostly in the 1990s). Mortality rates for the EU27, which amounted to about 1.0/100,000 in the early 1970s, fell to 0.4/100,000 by 2008. The absolute number of deaths fell from the peak

of 2000 in the mid-1970s to around 1000 in 2008 despite the steady growth in incidence occurring at the same time (Fig. 2.3.23).

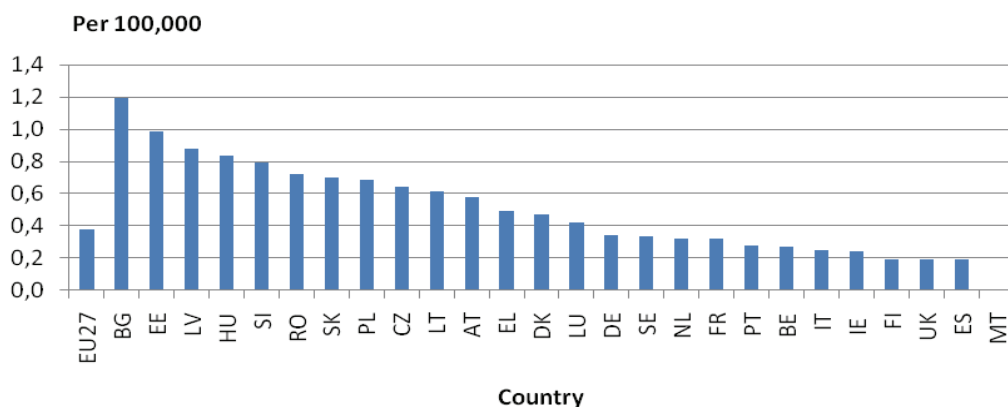
Fig. 2.3.23 Time trends of Testicular cancer mortality, all ages, EU27, 1978-2008



Source: WHO Morticd10

Every year testicular cancer kills about 1000 men in the EU, out of which over half have between 20-44 years of age. In 2008 mortality rates for the EU27 amounted to 0.4/100,000. The highest levels were observed in Bulgaria, Estonia and Latvia. The lowest mortality rates were observed in Spain and in the UK (Malta had no reported deaths) (Fig. 2.3.24).

Fig. 2.3.24 Age standardised death rates for Testicular cancer, by country, all ages, latest year¹



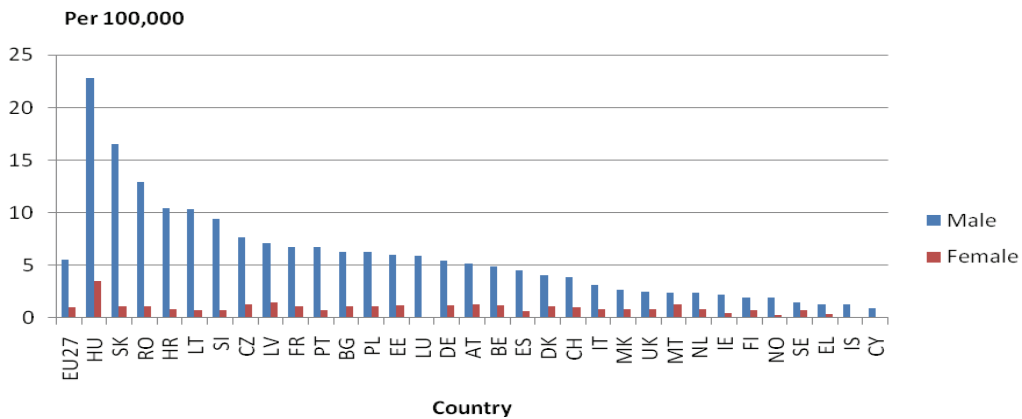
Source: WHO Morticd10¹ 2008 except FR, IT, SE, UK (2007). DE, DK, LU (2006). ES, PT, SK (2005). BE (2004)

2.3.11 Other cancers

The main cancer localisations described above constitute over 50% of all cancer mortality in European males and are the cause of 15% of all deaths among men.

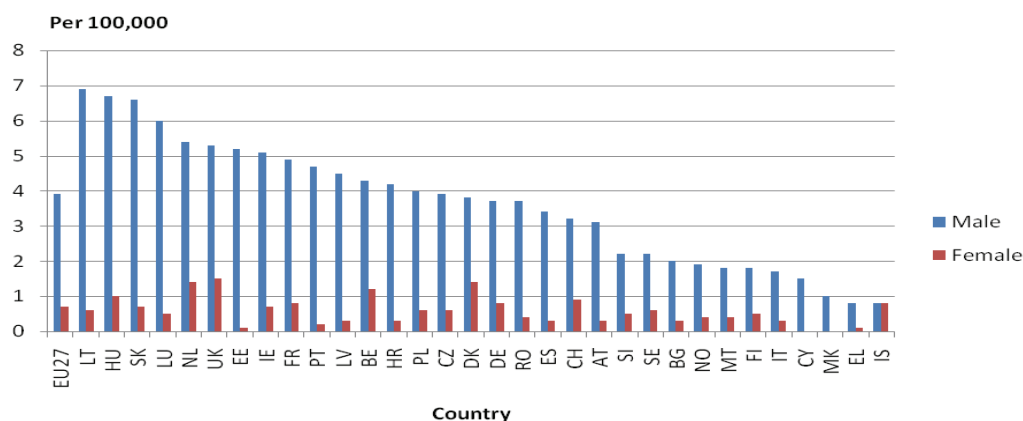
Other cancers are much less frequent and make up from a few percent to a fraction of a percent of cancers among men. Most of the top-10 cancers are connected by an aetiological relation with carcinogenic factors present in tobacco smoke. These are, apart from the described lung cancer, pancreatic cancer, urinary bladder cancer and kidney cancer. In the case of oral cavity cancer, pharyngeal cancer, laryngeal cancer and oesophageal cancer, tobacco smoke risk is multiplied by alcohol as an additional risk factor.

Fig. 2.3.25 Age standardised death rates for malignant neoplasm of Lip, Oral cavity, Pharynx, ages 0-64 years, by sex and country, latest year¹



Source: Eurostat hlth_cd_asdr¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.3.26 Age standardised death rates for malignant neoplasm of Oesophagus, ages 0-64 years, by sex and country, latest year¹



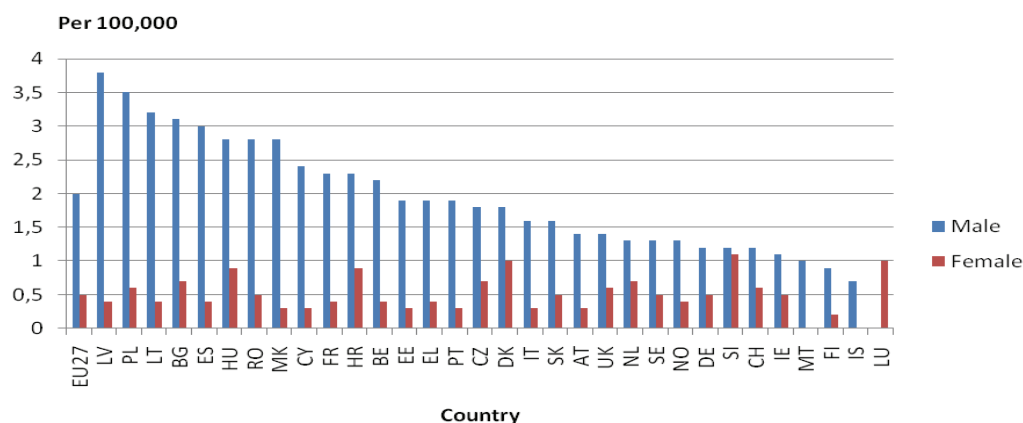
Source: Eurostat hlth_cd_asdr ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.3.27 Age standardised death rates for malignant neoplasm of Pancreas, ages 0-64 years, by sex and country, latest year¹



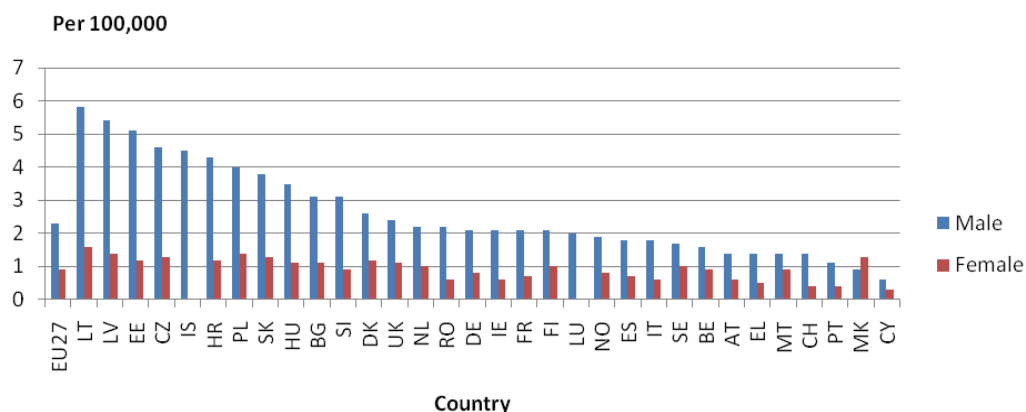
Source: Eurostat hlth_cd_asdr ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.3.28 Age standardised death rates for malignant neoplasm of Bladder, ages 0-64 years, by sex and country, latest year¹



Source: Eurostat hlth_cd_asdr ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Fig. 2.3.29 Age standardised death rates for malignant neoplasm of Kidney, except renal pelvis, ages 0-64 years, by sex and country, latest year¹

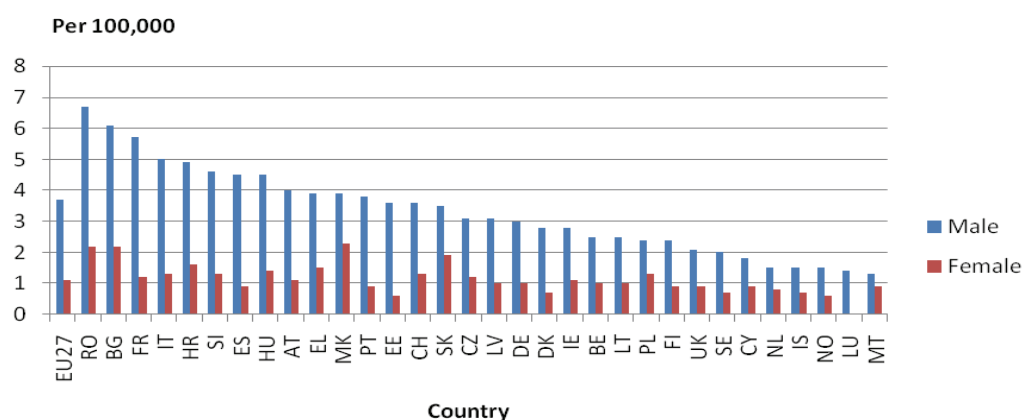


Source: Eurostat hlth_cd_asdr ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Liver cancer is also associated with smoking, but principally it is caused by conditions that affect the liver directly, such as hepatitis and alcohol. Men abusing anabolic steroids are also at risk.

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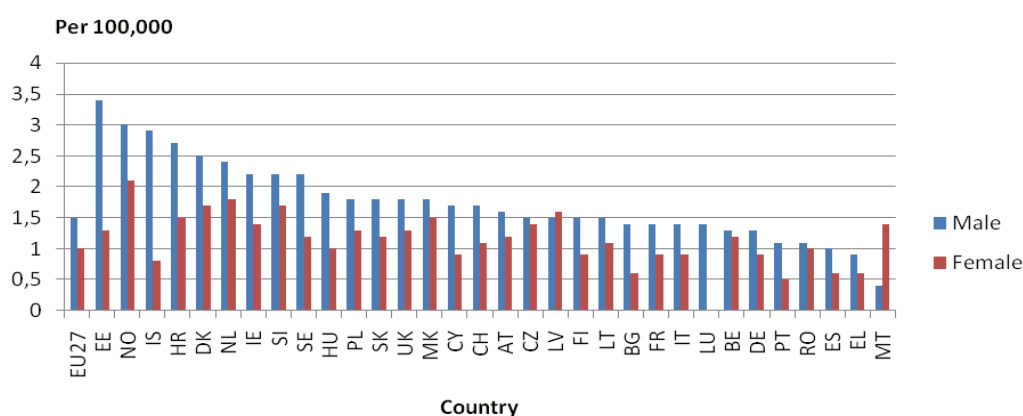
Fig. 2.3.30 Age standardised death rates for malignant neoplasm of liver and intrahepatic bile ducts, ages 0-64 years, by sex and country, latest year¹



Source: Eurostat hlth_cd_asdr ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

In the last decades an important cancer localisation for both sexes, with the fastest growth dynamics, has been malignant melanoma, as well as other skin cancers which, in the European population, are characterised by a dramatic increase in incidence and mortality. These cancers are the result of exposure to the sun and are one of the few cancers that show higher incidence levels in women, though the mortality is still higher in men.

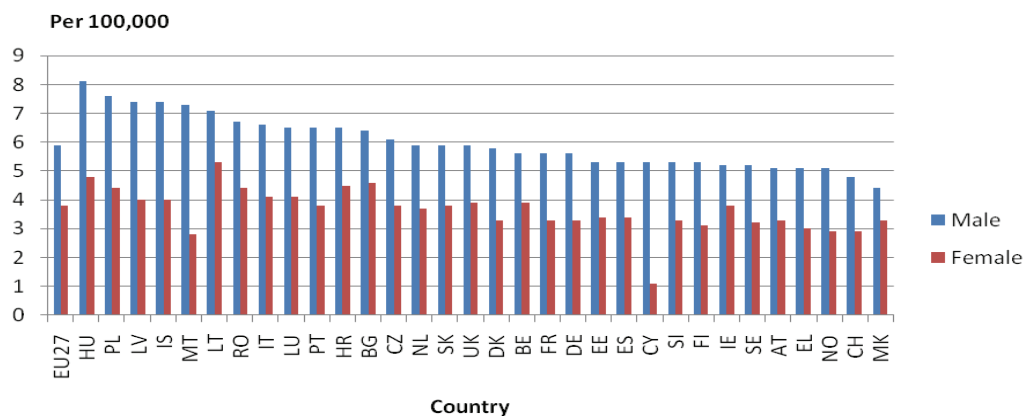
Fig. 2.3.31 Age standardised death rates for malignant melanoma of skin, ages 0-64 years, by sex and country, latest year¹



Source: Eurostat hlth_cd_asdr ¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Another growing cancer problem are leukaemia's and lymphomas, both among men and women. Incidence of those cancers is steadily growing, and they constitute 7% of all morbidity and mortality. However, some of those cancers are characterised by good treatment results, which lead to their declining mortality.

Fig. 2.3.32 Age standardised death rates for malignant neoplasms, stated or presumed to be primary, of Lymphoid, Haematopoietic and related tissue, ages 0-64 years, by sex and country, latest year¹



Source: Eurostat hlth_cd_asdr¹ 2008 except: BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

2.3.12 References

Albers P, Albrecht W, Algaba F et al., (2009) Guidelines on testicular cancer. European Association of Urology available at: http://www.uroweb.org/fileadmin/tx_eauguidelines/2009/Full/Testis_Cancer.pdf last accessed 22/11/10

Allwright S, Paul G, Greiner B et al., (2005) Legislation for smoke-free workplaces and health of bar workers in Ireland: before and after study. *BMJ* 331(7525):1117-20.

Boyle P, Smans M, Benichou J et al., (2008) Atlas of Cancer Mortality in the European Union and the European Economic Area 1993-1997. IARC Scientific Publications No. 159. Lyon France

Danaei G, Vander Hoorn S, Lopez, AD et al., (2005) Causes of cancer in the world: comparative risk assessment of nine behavioural and environmental risk factors. *Lancet* 366(9499):1784-93

- Desai M, Rachet B, Coleman MP et al., (2010) Two countries divided by a common language: health systems in the UK and USA. *JR Soc Med* 103(7):283-7
- Doll R, Hill AB (1950) Smoking and carcinoma of the lung; preliminary report. *BMJ* 2(4682):739-48
- Ferlay J, Shin HR, Bray F et al., (2010) GLOBOCAN 2008, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 10 [Internet]. Lyon, France: International Agency for Research on Cancer Available at: <http://globocan.iarc.fr> Last accessed 23/11/10
- Frieden TR, Bassett MT, Thorpe LE et al., (2008) Public health in New York City, 2002-2007: confronting epidemics of modern era. *Int J Epidemiol* 37(5):966-77
- Howson CP, Hiyama T, Wynder EL (1986) The decline in gastric cancer: epidemiology of an unplanned triumph. *Epidemiol. Rev.* 8:1-27
- John LE, Houlston RS (2003) A systematic review and meta-analysis of familial prostate cancer risk. *BJU International* 91(9):789-94
- Mackie A (2010) Screening for Prostate Cancer: review against programme appraisal criteria for the UK National Screening Committee (UK NSC). UK National Screening Committee: <http://www.screening.nhs.uk/prostatecancer>
- Micheli A, Ciampichini R, Oberaigner W et al., (2009) The advantage of women in cancer survival: an analysis of EURO CARE-4 data. *European Journal of Cancer* 45(6):1017–1027
- NICE (2004) Improving Outcomes in Colorectal Cancers Manual Update. National Institute for Clinical Excellence, London. Available at: <http://www.nice.org.uk/nicemedia/live/10895/28832/28832.pdf> Last accessed 22/11/10
- Peto R, Darby S, Deo H et al., (2000) Smoking, smoking cessation, and lung cancer in the UK since 1950: combination of national statistics with two case-control studies. *BMJ* 321(7257):323-9
- Peto R, Lopez AD, Boreham J et al., (2004) Mortality from Smoking in Developed Countries 1950-2000. 2nd ed. Imperial Cancer Research Fund and the WHO. Oxford University Press.
- Quinn M, Babb P (2002) Patterns and trends in prostate cancer incidence, survival, prevalence and mortality. Part I: international comparisons. *BJU International* 90(2):162-173
- Redinger R (2007) The Pathophysiology of Obesity and its Clinical Manifestations. *Gastroenterology & Hepatology* 3(11):856-863

- Schröder FHJ, Hugosson J, Roobol M et al., (2009) Screening and Prostate-Cancer Mortality in a Randomized European Study. *New England Journal of Medicine* 360(13):1320-1328
- Verdecchia A, Francisci, S, Brenner H et al., (2007) Recent cancer survival in Europe: a 2000-02 period analysis of EURO CARE-4 data. *The Lancet Oncology* 8(9):784-796
- Wilkins D (2006) Tackling the excess incidence of cancer in men: proceedings of the expert symposium. London, Men's Health Forum Available at: <http://www.menshealthforum.org.uk/node/20001> last accessed 22/11/10
- White AK, Thomsom CS, Forman D, Meryn, S (2010) Men's Health and the Excess Burden of Cancer in Men. *Eur Urol Suppl*
doi:10.1016/j.eursup.2010.03.00
- Wynder EL, Stellman SD (1977) Comparative epidemiology of tobacco-related cancers. *Cancer Res* 37:4608-4622
- Yamaguchi N, Kakizoe T (2001) Synergistic interaction between *Helicobacter pylori* gastritis and diet in gastric cancer. *Lancet* 2:84-94
- Zatoński W, Mancuk M, Sulkowska U (2008) Closing the health gap in the European Union. European Commission, HEM Project. Available at: https://camtools.cam.ac.uk/access/content/group/5e895f99-398c-46c7-86ab-b1f76a48c718/2_Ppublic_Health_Assessment/03_The_east_west_gap_in_Europe/Closing_the_health_gap_in_EU_chs_1_and_2.pdf Last accessed 22/11/10.

2.4 Accidents, Injuries and Violence

2.4.1 Main Points

- Throughout the EU, there is a clear and consistent pattern of higher mortality rates among males compared to females from accident and violence-related injuries.
- There are considerable differences between countries with male mortality rates from accident and violence related injuries being particularly high in Eastern Europe.
- Accidents account for the biggest proportion of deaths within this classification group (some 36,000 male deaths in EU27) with death rates from road traffic accidents being 3 times higher in males than in females. Men account for 95% of fatal workplace accidents.
- Homicide accounts for 5,500 deaths annually in the EU27 with the rate of homicide being twice as high for males as for females.
- Road injuries are the principal cause of accidental fatality.
- The economic costs associated with accidents in the EU is estimated at over € 15 billion a year.
- Whilst the vast majority of both victims and perpetrators of violence are male, females are much more likely to be victims of intimate partner violence (IPV).

2.4.2 Summary

Men's accidents, injuries and violence are a major public health problem within the EU. Male risk taking, the effect of male anti-social behaviour, male work and play activities and the management of mental and emotional conflict are all implicated in the higher rates seen in men. With the exception of sexual violence (for which 90% of victims are women) 72% of interpersonal violence victims and perpetrators are men. Homicide accounting for over 5,500 deaths each year also rises exponentially in young males after the age of 15 and peaks again in the 80 plus age group.

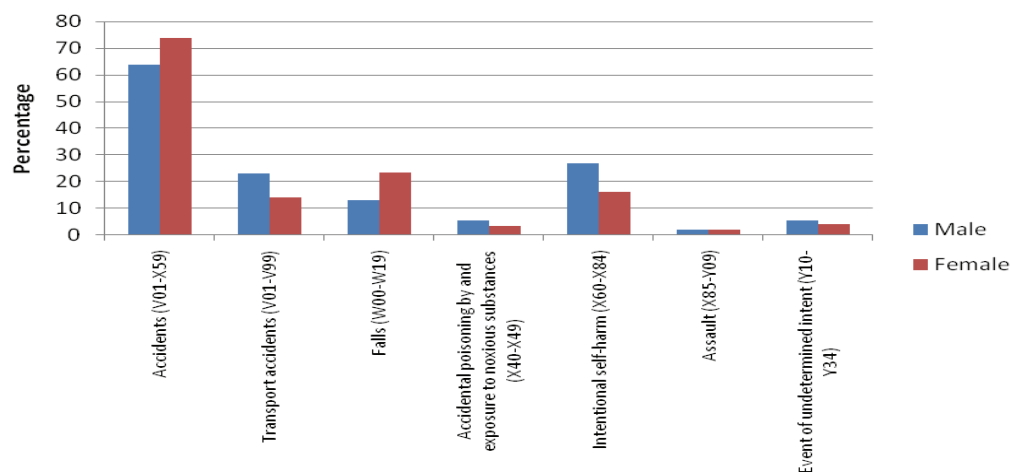
In light of the large intercountry variations in mortality rates from injury, it seems prudent that policy lessons and tried and tested preventive programmes established in low mortality countries could be used as a blueprint for good practice initiatives for countries with higher injury mortality rates. If all countries matched those with the lowest mortality rates, half of the lives lost to

road traffic injuries and 9 out of 10 of those lost to drowning, poisoning, burns and falls could be saved each year. With men being vastly overrepresented in the injury statistics, such reductions would be particularly significant in reducing mortality and morbidity rates among men.

2.4.3 Introduction

Deaths as a result of Injury³²/ External causes of morbidity and mortality accounted for over 156,000 male deaths (6.5% of all deaths) and 79,000 female deaths (3.3% of all deaths) for EU27 in 2007. Injury/ External causes of morbidity and mortality is the leading cause of death in all age groups below 60, and the fourth most common cause of death in the EU, after cardiovascular diseases, cancer and respiratory diseases. This broad classification band (see ICD-10 chapter XX, Codes V01-Y98³³) comprises accidents (unintentional injuries, including road traffic accidents, workplace accidents, and home & leisure accidents); and violence (intentional injuries, including interpersonal violence and self-harm). The biggest cause of death within this classification group is accidents accounting for 63% of male deaths (73% female deaths) (Fig. 2.4.1).

Fig. 2.4.1 Proportion of deaths within External causes of morbidity and mortality by sex, EU27, 2007



Source: Eurostat hlth_cd_anr

³² An injury is the physical damage that results when a human body is suddenly or briefly subjected to intolerable levels of energy. It can be a bodily lesion resulting from acute exposure to energy in amounts that exceed the threshold of physiological tolerance, or it can be an impairment of function resulting from a lack of one or more vital elements (i.e. air, water, warmth), as in drowning, strangulation or freezing. The time between exposure to the energy and the appearance of an injury is short (Holder et al., 2001).

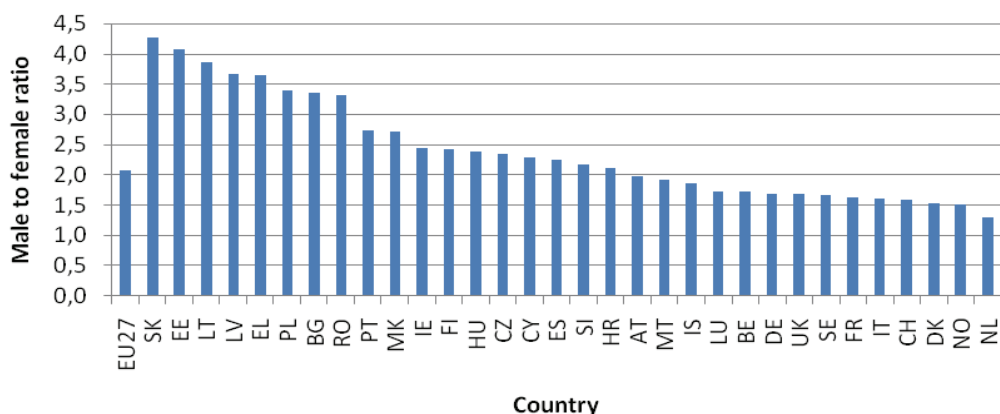
³³ <http://www.thcc.or.th/ICD-10TM/kv01.htm> last accessed 14/12/10

Despite improved surveillance systems and prevention strategies, accident and violence-related injuries continue to be a major public health problem in the EU. As well as being a major cause of death, accident and injury causes a huge drain on health and other societal resources, resulting in an estimated seven million hospital admissions annually and 60 million medical consultations annually (Bauer & Steiner, 2009). The burden of healthcare associated with accident and injury in the EU, is estimated at approximately 15 billion Euros per year (Rogmans, 2009). Boys and men are over represented in most fatal and non-fatal accident and injury categories. The burden of accident and injury also varies considerably between and within Member States. The prevalence of accident and injury-related mortality and morbidity is generally higher in Eastern European countries (Sethi et al., 2006) and among lower compared to higher socio-economic groups within countries (WHO, 2009a,b). A number of overall trends are also emerging: the number of fatal home and leisure injuries is increasing at a faster rate than demographic trends (attributable in large part to falls among a growing elderly population); the incidence of non-fatal injuries is increasing in the area of home and leisure and stable in the areas of traffic and workplace; it is projected that the number of disabled people within the EU will rise as a result of declining rates of fatal injuries and stable or non-fatal injuries (Bauer & Steiner, 2009).

2.4.4 Injury - Overall Trends

Throughout the EU, there is a clear and consistent pattern of higher mortality rates (per 100,000) among males compared to females due to Injury (External Causes) – see Fig. 2.4.2.

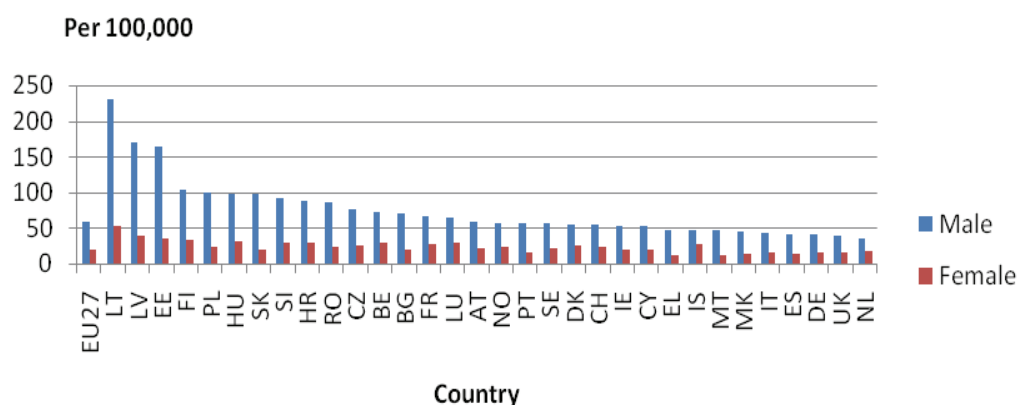
Fig. 2.4.2 Male to Female rate ratio of deaths due to injuries, by country¹



Source: Eurostat hlth_cd_ycdrf; hlth_cd_ycdrm. ¹ 2006 except BG, CH, FR, MT, PL, RO, SE, UK (2005). DK, EU27, LU, PT (2004). IT (2001). BE (1997)

There are considerable differences between countries (Fig. 2.4.3a&b)³⁴ with the standardised injury death rate being almost 7 times higher in Latvia (where over 16% of all deaths result from accidents) compared to the Netherlands (see also Fig. 2.2.15). This is indicative of an overall pattern of much higher standardised injury death rates in Eastern Europe than Western Europe.

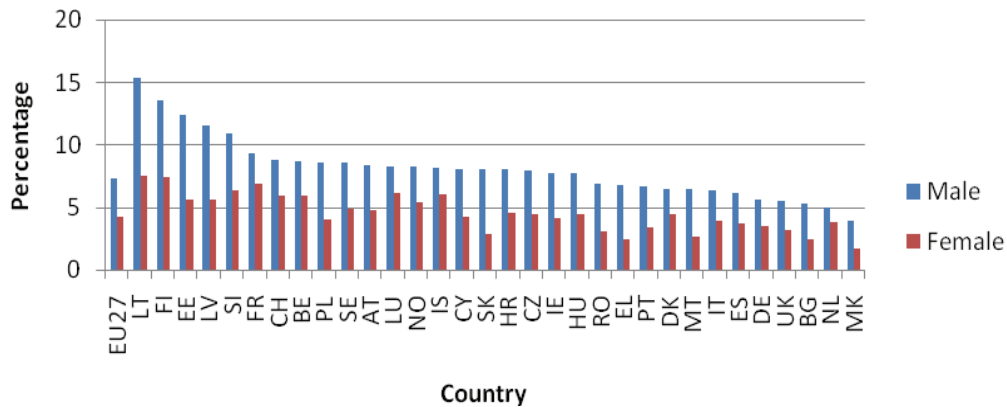
Fig. 2.4.3a Age standardized death rates and percentage of all deaths for External causes of morbidity and mortality, by sex and country, latest year¹



Source: 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

³⁴ Concerns have been expressed with regard to intercountry comparisons because of different coding practices of injury deaths among EU countries (see Petridou et al., 2008).

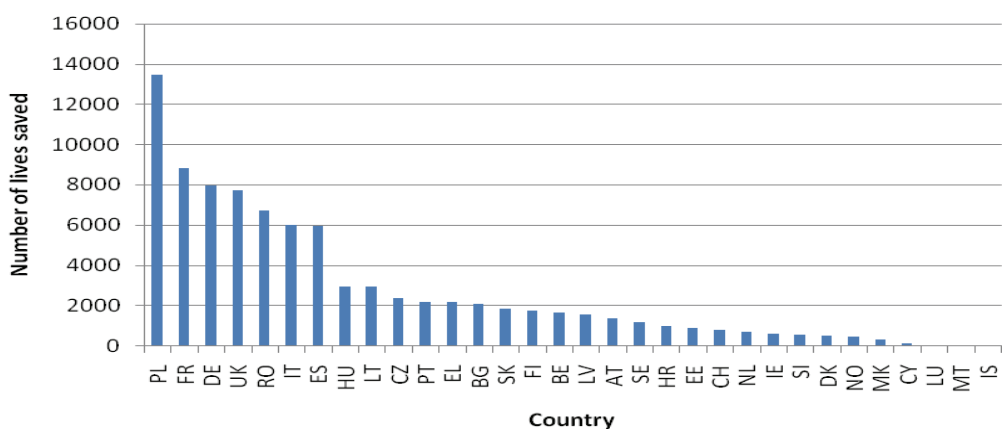
Fig. 2.4.3b The percentage of all deaths for External causes of morbidity and mortality, by sex and country, 2007



Source: Eurostat hlth_cd_asdr

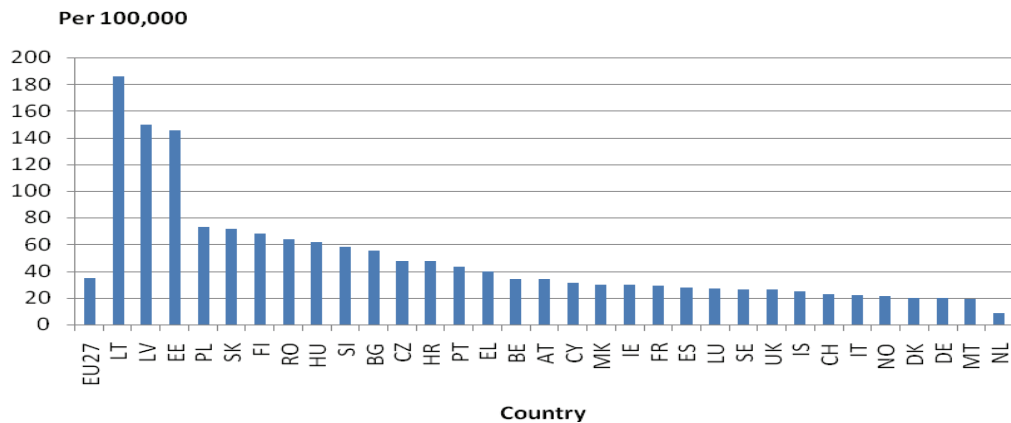
It is estimated that 100,000 lives could be saved each year if every country in the EU-27 reduced its injury mortality rate to the level of the Netherlands (Bauer and Steiner, 2009). If we were able to bring the male mortality rate down to that of females then we would see over 82,000 male lives saved across the EU27, with significant differences noted between the countries with the highest and lowest overall accident rates (Fig. 2.4.4). This equates to a potential decrease in overall mortality of 35 per 100,000 population across the EU27 (Fig. 2.4.5).

Fig. 2.4.4 Estimated lives saved if mortality for male External causes matched that of women, by country, latest year



Source: calculated from Eurostat hlth_cd_anr

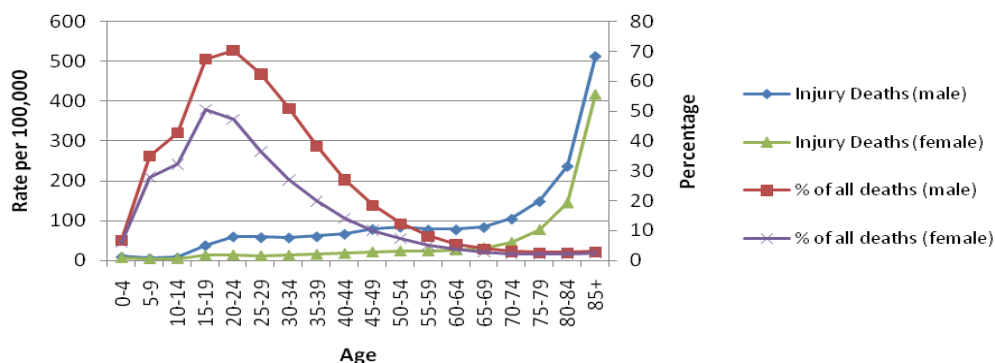
Fig. 2.4.5 Estimated rate of lives saved if mortality for male External causes matched that of women, by country, latest year



Source: calculated from Eurostat hlth_cd_anr

Unintentional injuries are responsible for about two thirds of injury fatalities (68%) and intentional injuries represent one third of injury fatalities (32%) (EUGLOREH, 2007). The vast majority of injury fatality is attributable to suicide (24%) road traffic accidents (21%) and falls (19%). Injuries affect men and women disproportionately throughout the lifespan with overall risk of injury being approximately twice as high in men (72 injury deaths per 100,000) than in women (35 deaths per 100,000) (ibid). Fatal injury rates (per 100,000) rise sharply up to the age of 15-19, are higher for boys/young men than for girls/young women, and are also much higher in older men than in older women (see Fig. 2.4.6).

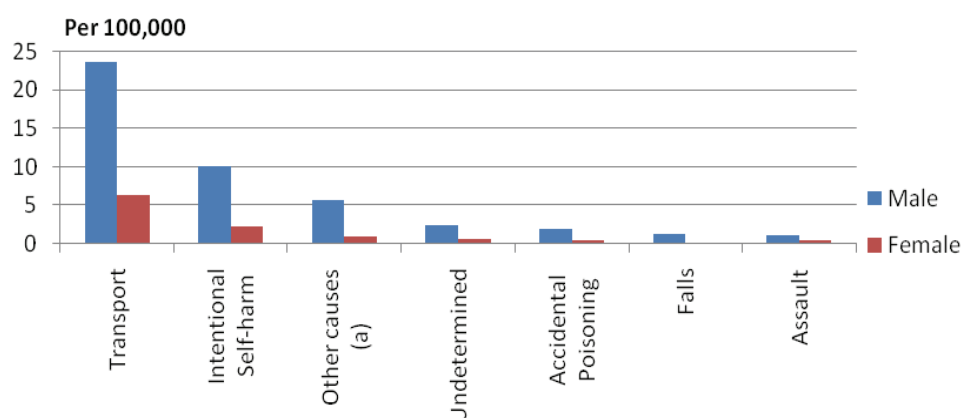
Fig. 2.4.6 Age specific death rates per 100,000 and percentage of all deaths for External causes of morbidity and mortality, EU27, 2007



Source: Eurostat hlth_cd_asdr

Road traffic accidents (48%) and suicide (20%) account for over two-thirds of all fatal injuries among adolescents and young adults (15-24 (EUGLOREH, 2007). In both cases, the death rates (Fig. 2.4.7) are approximately 3 - 4 times higher for men (transport: 24, suicide: 10) than for women (transport: 6, suicide: 2), resulting in a relative injury mortality rate of 70% in males between 20 to 24 years of age (ibid). There are also considerable differences between countries in the injury fatality rate for young people. For example, injury accounts for 54% of the total number of adolescent deaths in the Netherlands compared to 76% in Estonia. Each year 8.4 million people age 15 -24 require hospital treatment for an injury. This represents 20% of all hospital injury related treatments, even though this age group represents only 13% of the total EU population.

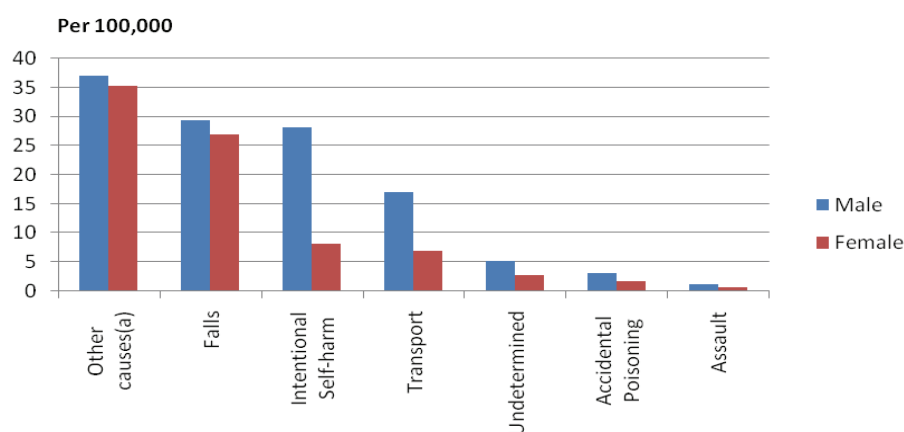
Fig. 2.4.7 Mortality rates by injury, by sex, ages 15-24 years, EU27, 2007



Source: calculated from hlth_cd_acdr. A) Other causes include: fires, drowning, etc

Fatal injury rates also rise dramatically after the age of 70, from 100 to 250 in the age group 80-85 for men (with a corresponding rise from 50 to 150 for women). Among older people (60+) falls (36%) and suicide (28%) are the principal causes of fatal injuries. The rates for road traffic accidents being more than twice as high and suicide more than three times higher for men than for women (Fig. 2.4.8).

Fig. 2.4.8 Mortality rates by injury, by sex, ages 60+ years, EU27, 2007

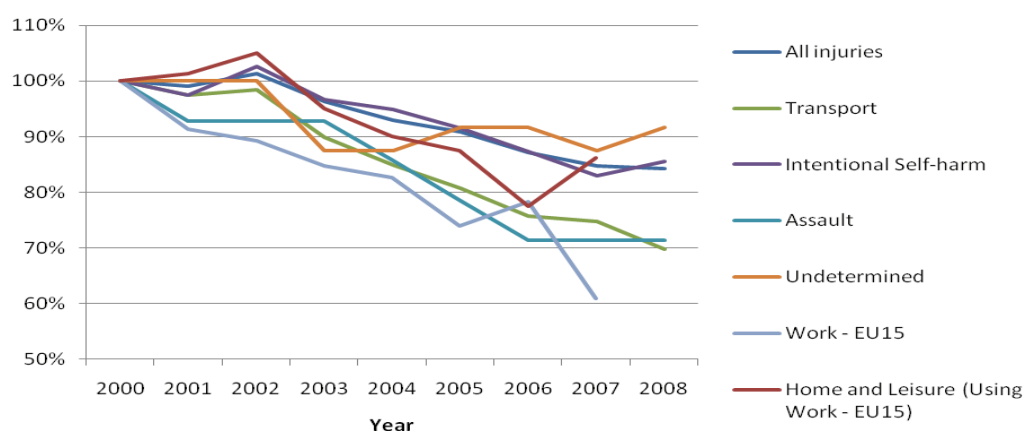


Source: calculated from hlth_cd_acdr. Other causes include: fires, drowning, etc

Whilst the proportion of fatalities due to injury amongst older people is relatively small (3% of all deaths), the burden of treatment, rehabilitation and care is enormous. Approximately one third of all hospital contacts have to be admitted (EU IDB estimate), with older people 'consuming' 58% of all injury-related hospital days (Bauer & Steiner, 2009). The rapidly increasing aging population within the EU – it is projected that by 2030, 30% of the EU-27 population will be 65 years or older - is expected to increase the burden and associated costs of fall-related injury and death (Kannus at al., 2005). Although the proportion of injury-related hospital days is much higher for women (75% of all injury-related hospital days v 22% of the population), projections from the EU Project FELICIE (Future Elderly Living Conditions in Europe) are that dependency on care until 2030 will increase by 80% for men after the age of 75, compared to 20% for women (Bauer & Steiner, 2009).

There has been a steady decline in fatalities due to injuries in the past decade (Fig. 2.4.9). Developments in homicide figures, road transport and work place accidents are quite favourable, while home and leisure accidents show only a very moderate decline, which most probably is the result of aging societies and the increase in old and frail people, who are frequently affected by falls.

Fig. 2.4.9 Fatal injury, EU27, by injury prevention domain



Source: calculated from hlth_cd_asdr and hsw_aw_inasx.

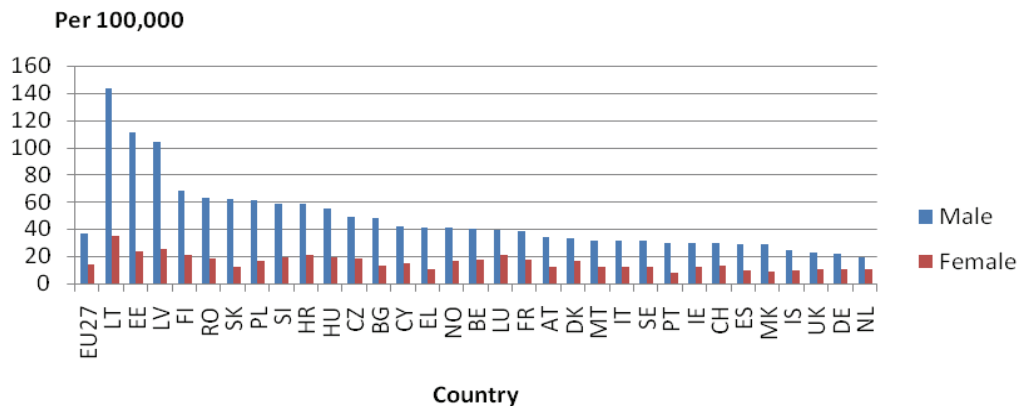
This overall decline can be attributable to improvements in injury policy, prevention and legislation, and indirectly through improved surveillance. In the context of the latter, ongoing improvements in the monitoring and recording of injury data is enabling a more informed and targeted approach to injury prevention. Such data is also an important basis for harnessing public support, co-operation between stakeholders and political will, and for monitoring the success and cost-effectiveness of injury-prevention measures (Bauer & Steiner, 2009).

2.4.5 Accidents

Mortality rates from accidents³⁵ are consistently higher for men than for women across Member States, with the gap being most pronounced in Eastern European countries (Fig. 2.4.10).

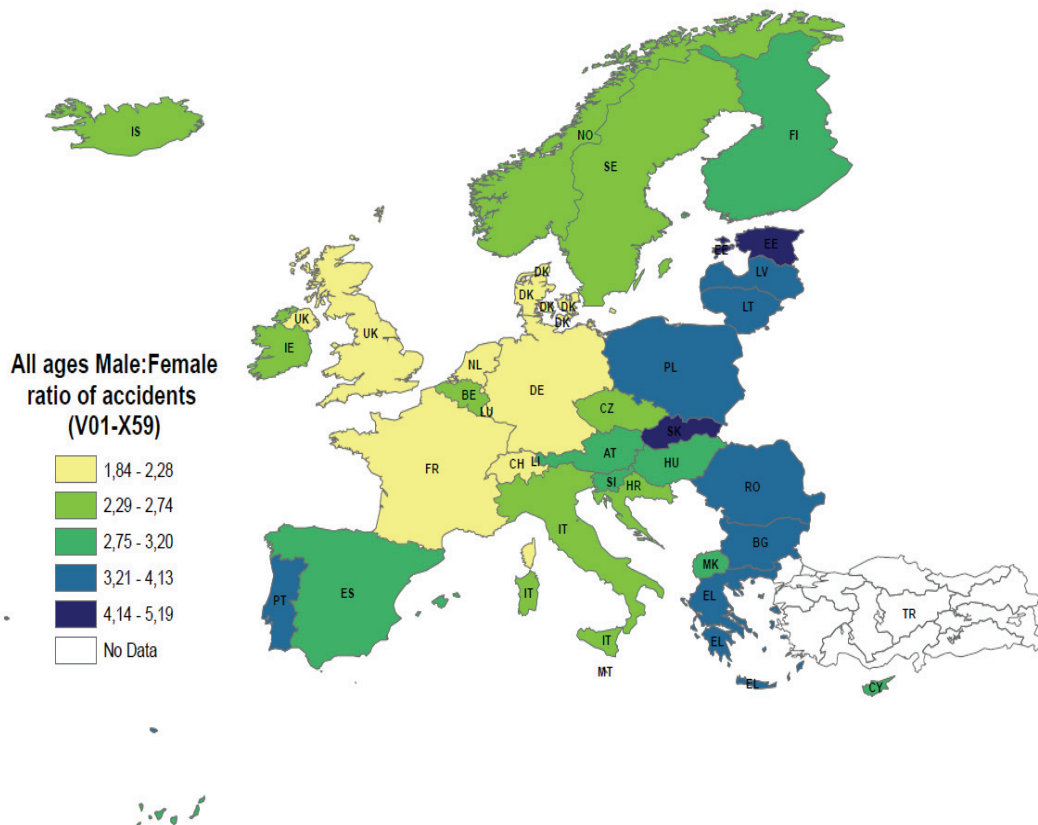
³⁵ 'Accidents refers to all accidents (transport, workplace, home and leisure; ICD V01-X59)

Fig. 2.4.10 Age standardised death rates for Accidents, by sex and country, all ages, latest year ¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Map 2.4.1 Male:female ratio of accidents, all ages



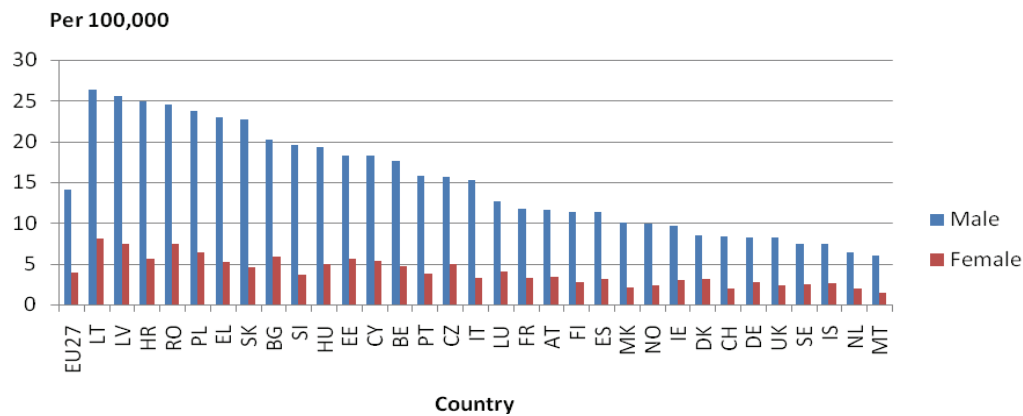
Source:

2.4.5.1 Transport Accidents

Deaths from road traffic accidents account for 23% of all deaths due to External causes within the EU27, with 36,166 men (11,181 women) killed in the EU27 in 2007. Death rates are 3 times higher for men than for women (Fig. 2.4.11)³⁶. According to EU IDB estimates, 4.3 million road injuries per year are treated in EU hospitals, with approximately two-thirds of these being vulnerable road users (pedestrians, cyclists or motorised two-wheelers). Considerable differences exist between countries, with higher rates in Eastern European countries. Although the disparity in road death rates across Europe has decreased since 2001, there is still a fourfold difference between the lowest (Malta) and the highest countries (Lithuania). Deaths from road traffic accidents are 1.5 times greater in lower and middle income countries than in higher income countries (WHO, 2005) and are also higher among men with lower socio-economic status and less education (WHO, 2009a). Indeed, the risk of road traffic injury which is estimated to cause up to 40% of hospital deaths after road traffic accidents could be avoided if appropriate treatment by qualified and trained personnel in appropriately equipped hospitals was available to all victims (Haegi, 2002). The best estimate from the Global Burden of Disease study of the World Health Organization suggests that more than 1 in 3 road traffic fatalities in the European Union are due to alcohol, with males accounting for 15,000 of the 17,000 alcohol related traffic deaths (Anderson & Baumberg, 2006). Alcohol also affects others, including an estimated 10,000 deaths in drink-driving accidents for people other than the drink-driver, and property damage due to drink-driving estimated to be €10bn (ibid).

³⁶ Bauer & Steiner (2009) highlight a problem of underreporting of traffic injuries within the EU. EU IDB based estimates indicate that there are more than 4 million road traffic injuries each year, of which 1 million are admitted to hospital. This compares to police records which show about 1.7 million road traffic users being injured each year, 1.4 million of which are slightly injured and 300,000 seriously injured (ETSC, 2009). The underreporting of road traffic injuries in police records seems to be particularly high for pedestrians (by a factor of 1.35 for serious injuries and up to 2.4 for slight injuries) and cyclists without any counterpart involved (by a factor of 3.75 for serious injuries and up to 8 for slight injuries (DG Sanco, 2009).

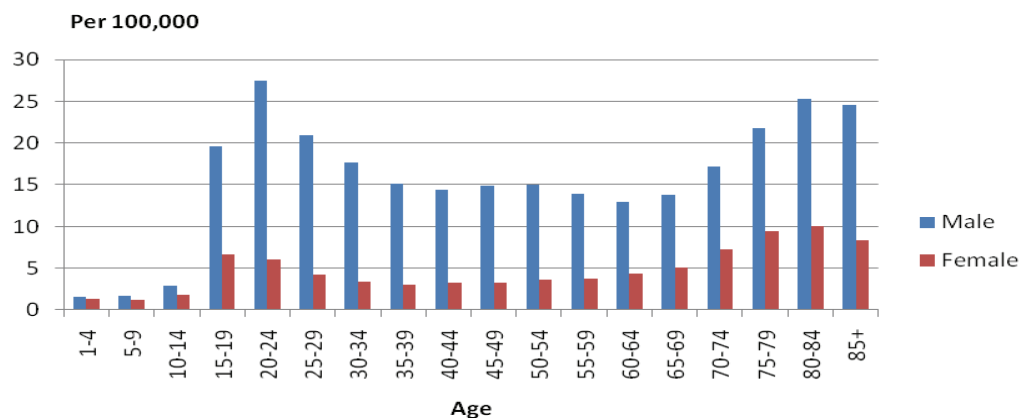
Fig. 2.4.11 Age standardised death rates for Transport accidents, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

The risk of road traffic fatal injury is seen to be highest in the young and old (see Fig. 2.4.12). Indeed, more than 40% of vulnerable road user fatalities are recorded among individuals over the age of 60, with the rate being approximately two and half times higher among older men compared to older women (Bauer & Steiner, 2009). Persons over the age of 60 are four times more likely to die when injured by a car compared to younger people (Sklar at al., 1989). Differences between the EU 25 countries in road traffic death rates among the elderly may be associated with inter-country variation related to differences in the frequency of road traffic accidents; delayed activation of trauma care systems; differences in the quality of pre-hospital and hospital care; differences in road lighting and availability of footpaths (Petridou et al., 2008).

Fig. 2.4.12 Age specific death rates for Transport accidents, by sex, EU27, 2007



Source: Eurostat hlth_cd_asdr

The risk of road traffic fatal injury is approximately 3 times higher among adolescent/ young men compared to adolescent/young women (Fig. 2.4.12). Not surprisingly, a survey of factors associated with ‘road risk’ in 23 European countries showed that rates of speeding and drink driving were much higher among young men and led to the conclusion that:

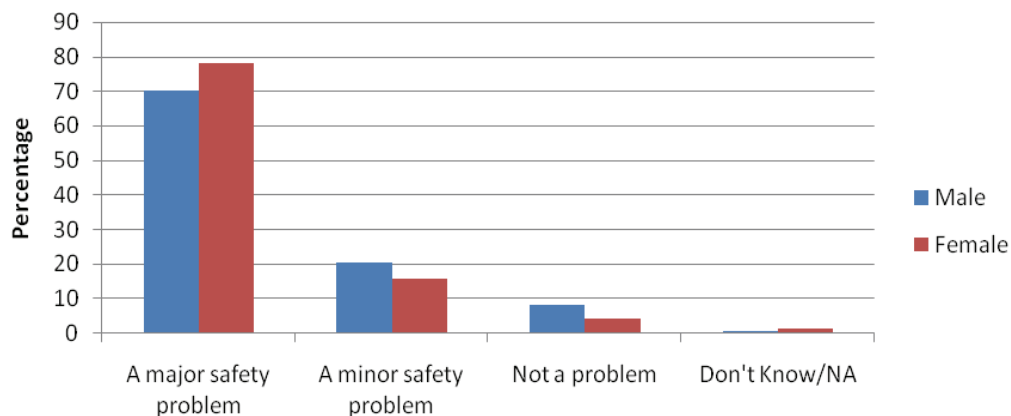
“When we combine the various findings of this survey we understand that, generally speaking, younger drivers (18-24) engage and admit to more dangerous behaviours. Factors like inexperience, low risk observation, high-risk acceptance, lifestyles, over-estimation of own driving skill, high exposure, can help to explain their engagement in ‘unsafe’ driving behaviour.” (SATRE, 2004, p 128)

Sørensen et al., (2008) found that the demographic characteristics of drink drivers reported within a number of studies consistently revealed that such drivers were:

- male,
- aged between 18-24,
- from a low socio-economic grouping,
- single or divorced,
- in blue collar occupations,
- of low education and limited literacy
- of low self-esteem.

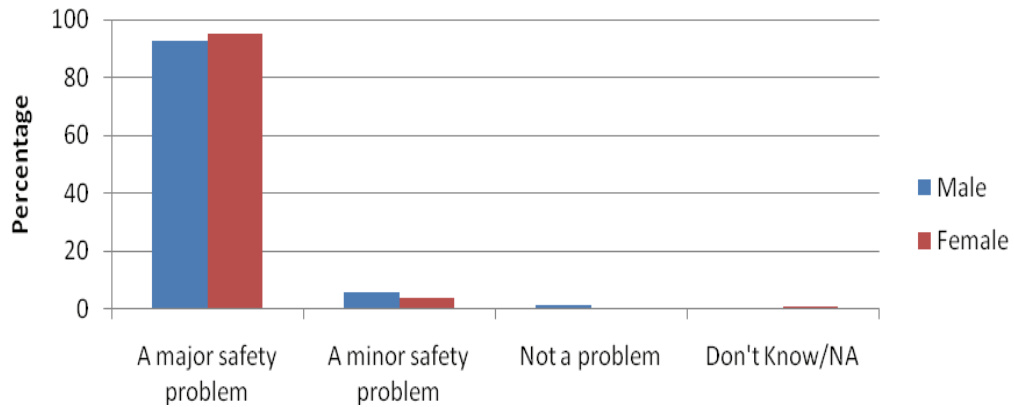
Earlier studies have shown that young male drivers are much more likely than young female drivers to overestimate their driving skills (Gregersen & Bjurulf, 1996). Such overconfidence in driving ability has been shown to be associated with young men engaging in more frequent reckless driving (Sarker & Andreas, 2004; Farrow & Brissing, 1990); being less likely than young women to consider speeding, drunk driving or distracted driving as dangerous driving behaviours (Sarker & Andreas, 2004), and being less likely to expect a negative consequence to result from such driving behaviour (Farrow & Brissing, 1990). These findings are borne out by a recent Eurobarometer (2010) survey on road safety which found that men were less likely than women to identify as a 'major problem' (i) not wearing a seat belt; (ii) driving under the influence of alcohol; (iii) exceeding speed limits; and (iv) driving while talking on a mobile phone (Fig. 2.4.13, Fig. 2.4.14, Fig. 2.4.15, Fig. 2.4.16).

Fig. 2.4.13 Perceptions about the seriousness of road safety problems - Drivers and passengers not wearing seat belts, by sex



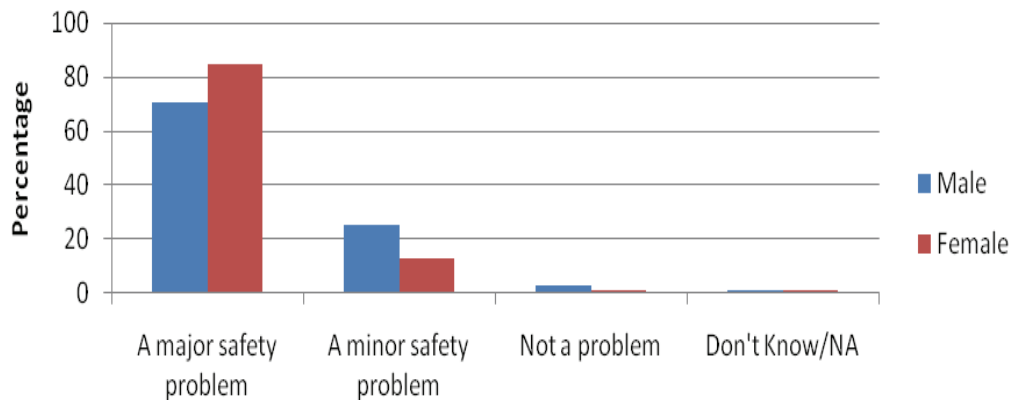
Source: Eurobarometer 2010

Fig. 2.4.14 Perceptions about the seriousness of road safety problems - People driving under the influence of alcohol, by sex



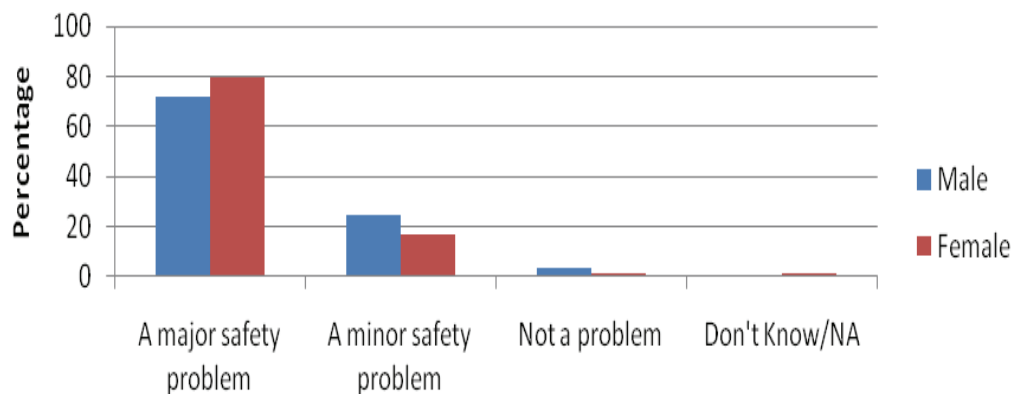
Source: Eurobarometer 2010

Fig. 2.4.15 Perceptions about the seriousness of road safety problems - Drivers exceeding speed limits, by sex



Source: Eurobarometer 2010

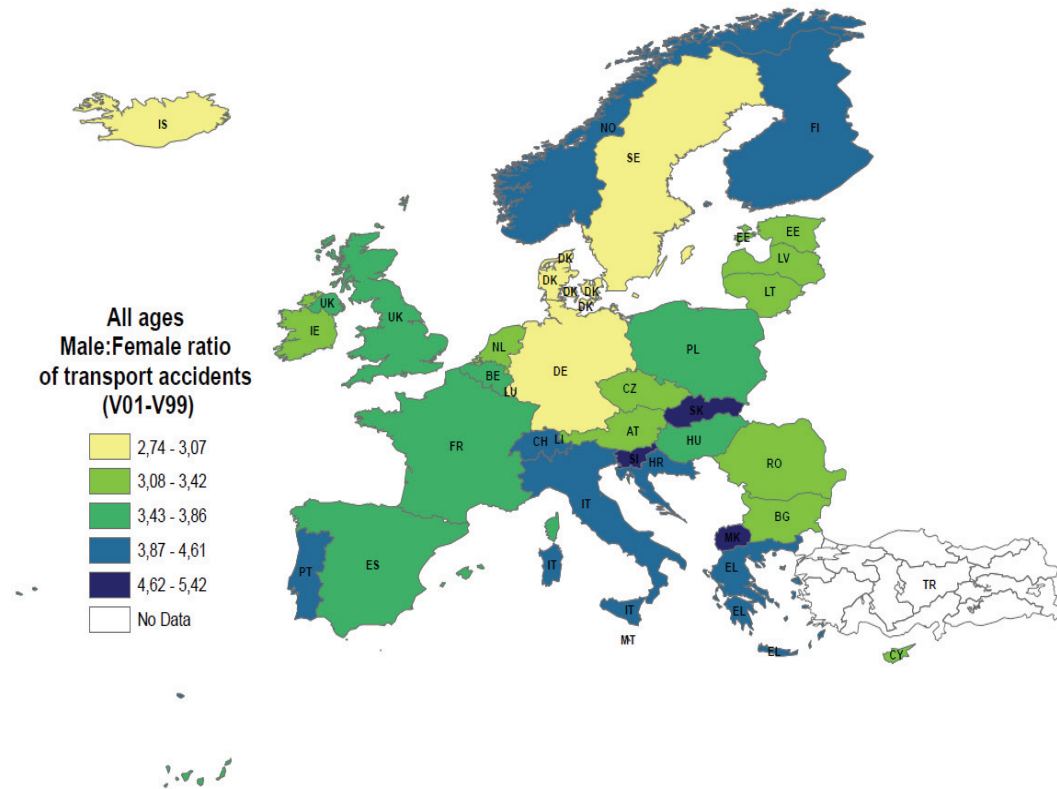
Fig. 2.4.16 Perceptions about the seriousness of road safety problems - People driving while talking on a mobile phone without a hands-free kit, by sex



Source: Eurobarometer 2010

We should not, therefore, find the high rate of men's convictions for driving offences in the EU much of a shock. In Denmark, for example, the rate of accidents involving male drink drivers aged 18–24 is still approximately three times that of 25 to 64 year-olds (Bernhoft et al., 2008). Similarly in Ireland, men account for 90% of drink driving offences during the period 2003-2007 (Mongan et al., 2009). It should be noted that men also have greater access to motor vehicles on average than women, particularly in the case of vehicles such as motorbikes, which have higher fatality rates (EUGLOREH, 2007).

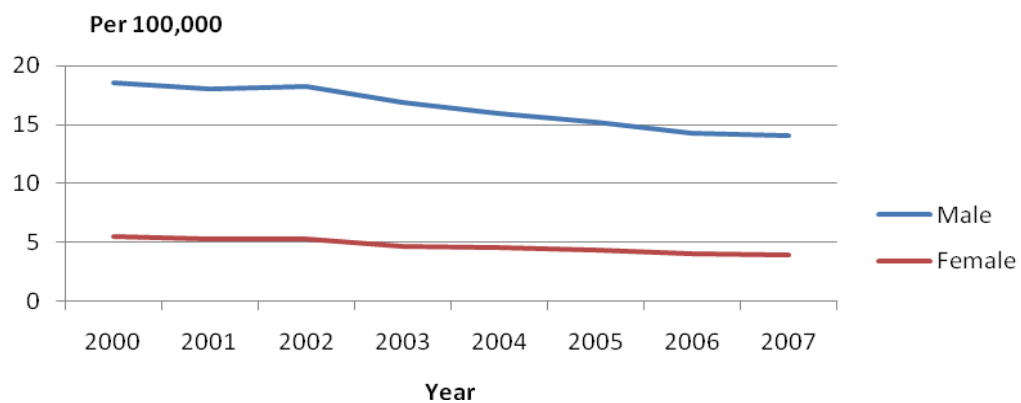
Map 2.4.2 Male:female ratio of transport accidents, all ages,



Source:

Overall road deaths have decreased in the EU27 by 8.3%, with reductions being reported in all but five countries (Fig. 2.4.17).

Fig. 2.4.17 Time trends of mortality from Transport accidents, by sex, all ages, EU27, 2000-2007



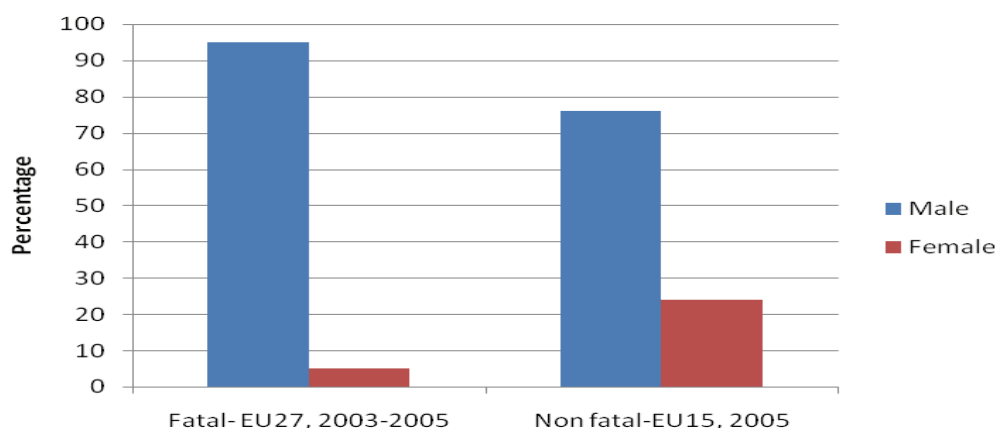
Source: Eurostat hlth_cd_asdr

Notably, the biggest reductions have been achieved by five countries (Estonia, Lithuania, Slovenia, Latvia and Hungary) that joined the EU in 2004, indicating the benefits of EU legislation, EU funding for road safety and EU shared targets. For example the European Transport Safety Council's (ETSC) Road Safety Performance Index is a policy instrument designed to identify and promote best practice on all relevant areas of road safety (www.etsc.eu/PIN-publications.php). Whilst such reductions reflect overall improvements in road safety policy and legislation, it is projected, based on more modest progress than expected since 2001, that the 2010 EU27 targets for reductions in road deaths (50% based on 2001 figures), will not be reached until 2017.

2.4.5.2 Accidents: Workplace

Men account for 95% of fatal accidents and 76% of non-fatal accidents in the workplace (Fig. 2.4.18).

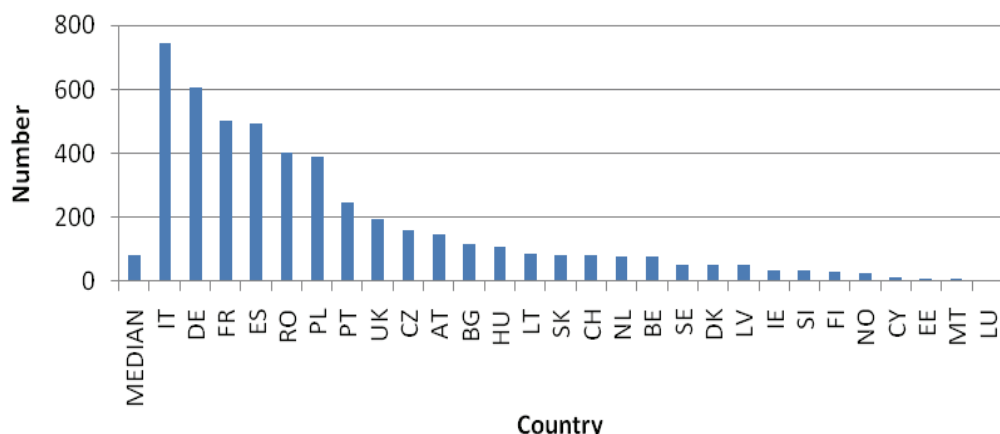
Fig. 2.4.18 Fatal and non-fatal accidents at work, by sex



Source: European Commission (2008) Causes and Circumstances of Accidents at Work in the EU. Luxembourg, Office for Official Publications

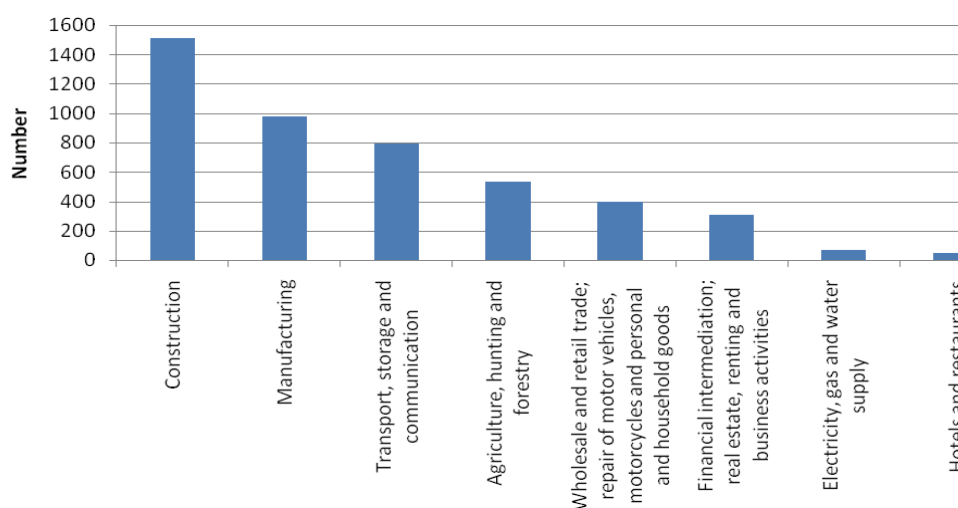
There are considerable variations between countries, with the highest number of fatal accidents occurring in Italy and Germany (Fig. 2.4.19). It is acknowledged that such differences are, to a large extent, the result of methodological differences in surveillance of workplace accidents. Construction, manufacturing and transport, storage and communication account for the highest proportion of fatal accidents (Fig. 2.4.20).

Fig. 2.4.19 Number of fatal accidents (NACE A_D_TO_K), by country, Male, 2007



Source: Eurostat Hsw_aw_nnasx

Fig. 2.4.20 Number of fatal accidents, Male, EU27, 2007



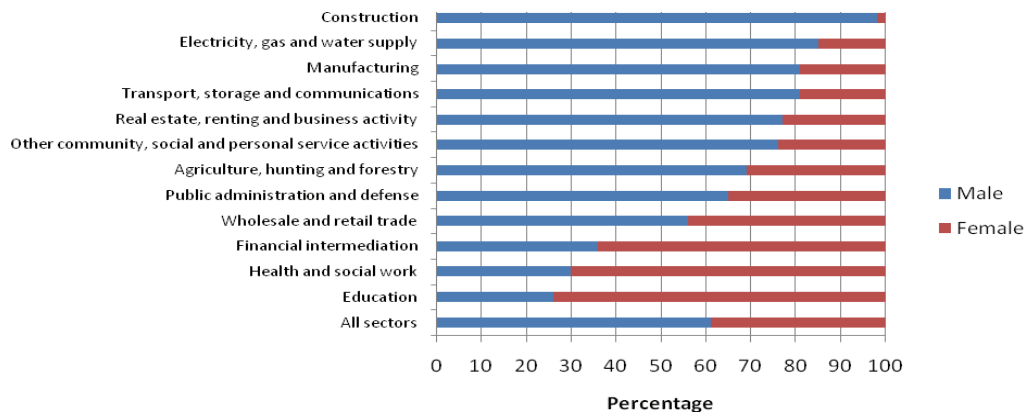
Source: Eurostat Hsw_aw_nnasx

Construction and manufacturing also account for the majority of non-fatal accidents in men (Fig. 2.4.21). Approximately two-thirds (68%) of non-fatal accidents occurring among craft and related trade workers, machine operators, or workers employed in an elementary occupation³⁷. Incidence rates for non-fatal accidents are highest among labourers in mining, construction, manufacturing, and transport; stationary and mobile plant operators; and

³⁷ The term 'shock, fright, violence, aggression' refers to (i) company employees being subjected to the employer's authority; (ii) company employees being subjected to an external threat; (iii) company employees being struck by or in collision with an object in motion, being drowned, buried, trapped, crushed, bitten, kicked (by animal or human), among others.

extraction and building trade workers. Over 70% of non fatal accidents injuries arising from non fatal accidents are sustained as wounds and superficial injuries, dislocations, sprains and strains.

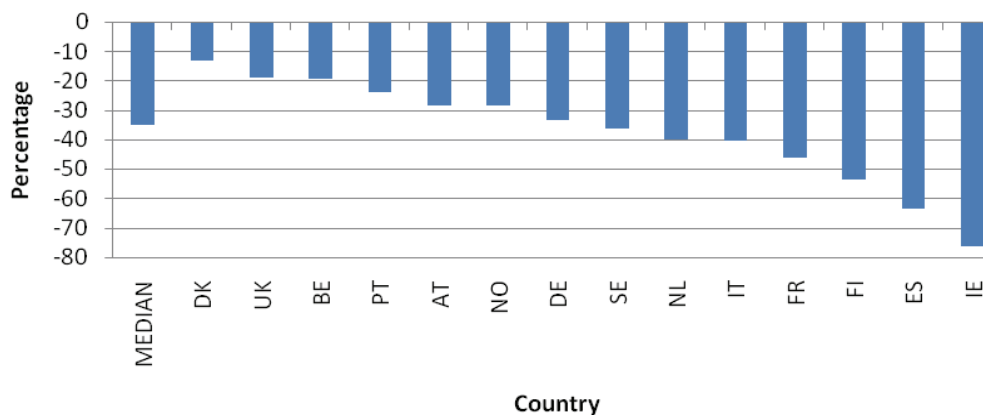
Fig. 2.4.21 Distribution of non-fatal accidents, by sex and by sector for victims of shock, fright, violence and aggression, 2005, EU27



Source: European Commission (2008) Causes and Circumstances of Accidents at Work in the EU. Luxembourg, Office for Official Publications

Advances in occupational health and health and safety have resulted in reductions in the rate of accidents at work. Between 1997 and 2007, there has been a decline in the standardised incidence rate of fatal accidents at work, with Ireland having achieved the most notable reduction (Fig. 2.4.22).

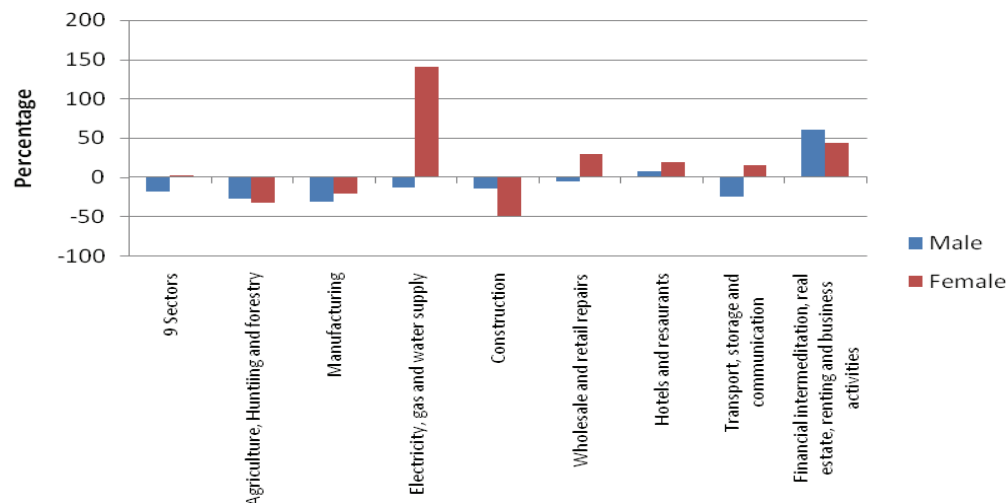
Fig. 2.4.22 Percentage change in the standardised incidence rate of fatal accidents at work (NACE: A_G_TO_K), 1997-2007, males and females combined



Source: Eurostat hsw_aw_fims

The evolution of accidents in the EU-15 over the 10 year period has seen an 18% decrease on crude rates in males and a 2.2% increase on crude rates in females (Fig. 2.4.23).

Fig. 2.4.23 Evolution of numbers of accidents, by sex and sector, EU15, 1997–2007



Source: European Commission (2008)

2.4.5.3 Cost of Workplace Accidents

In 2005, 141 million days were lost due to accidents at work (EU-15), with an average 35 days of absence per accident (European Commission, 2008).

Although a large proportion of accidents entailed fewer than 14 days of absence (45.6%), the number of accidents leading to more than one month of absence accounted for a quarter of overall absence (ibid). Workplace accidents and occupational injuries pose a considerable economic burden to employers, employees and to society as a whole. In addition to the personal costs in terms of pain and disability to the individual and lost income, workplace accidents are associated with decreased productivity, staff replacement costs and increased demands on public services, such as healthcare and social security (European Agency for Safety and Health at Work, 2005). Estimated Member State costs due to work accidents vary from 1–3 % of gross national product (ibid).

Notwithstanding the clear progress that is being made in reducing workplace injuries, it is noteworthy that there has been little questioning or conceptualisation as a health issue, of the disproportionate incidence of work-related injuries and fatalities among men, particularly working-class men (Schofield at al., 2000). As men continue to dominate those industries that

have high levels of occupational injury and death – the construction industry, work involving heavy machinery and dangerous tools, most transport work, and most work in heavily polluted environments – this continues to be taken for granted as normal and expected masculine practice, as ‘men’s work’ (Connell, 1995). Future policy directed at reducing workplace injuries needs to take account of the gendered patterns of workplace accident and injury and the wider cultural and institutional masculine ideologies within workplaces in which accidents are more prevalent.

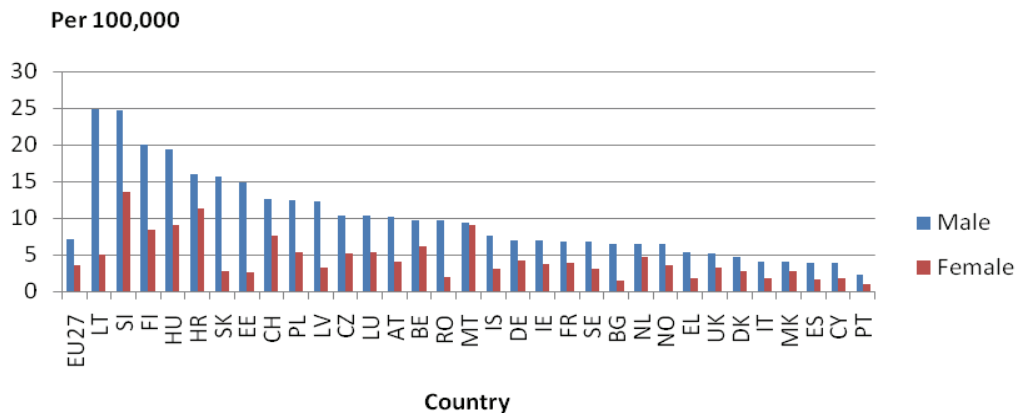
2.4.6 Leisure Accidents and Injuries

Home and leisure accidents account for almost 50% of all fatalities for men and for women due to injuries and about two thirds of all injury related hospital admissions in the EU27. Home & leisure accidents refer to a diverse category that comprises all accidents other than transport and workplace accidents. Frequently, these risks or accidents are grouped by age (e.g. children, adolescents, adults, senior citizens), setting (e.g. home, educational facilities, roads, nature), injury mechanisms (e.g. fall, poisoning, scalds, cutting) or activity (e.g. playing, sporting, DIY, housekeeping, personal care, walking). The diversity implies also various legal and administrative responsibilities, imposing a challenge for coordinated prevention efforts. It is beyond the scope of this report to cover all aspects of this category, therefore the following discussion of falls, poisoning & sport injuries should be seen as merely exemplary.

2.4.6.1 Falls

The EU injury fatality rate from falls is consistently higher among men than among women across Member States. There is also large variability between countries, ranging from a rate of approximately 2 for males in Portugal to 25 for males in Slovenia (Fig. 2.4.24).

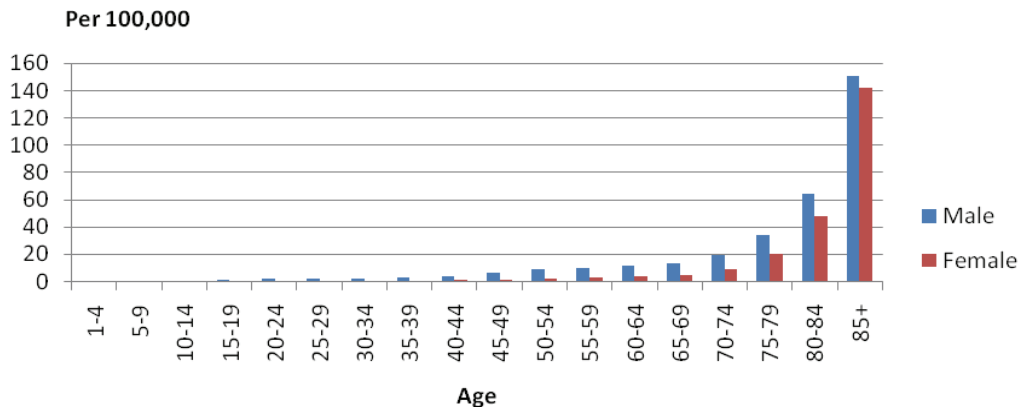
Fig. 2.4.24 Age standardised death rates for Falls, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

As highlighted earlier, the injury fatality rate from falls rises sharply after the age of 70 (Fig. 2.4.25) with falls comprising the main cause (29%) of fatal injuries among older people.

Fig. 2.4.25 Age specific death rates for Falls, by sex, EU27, 2007

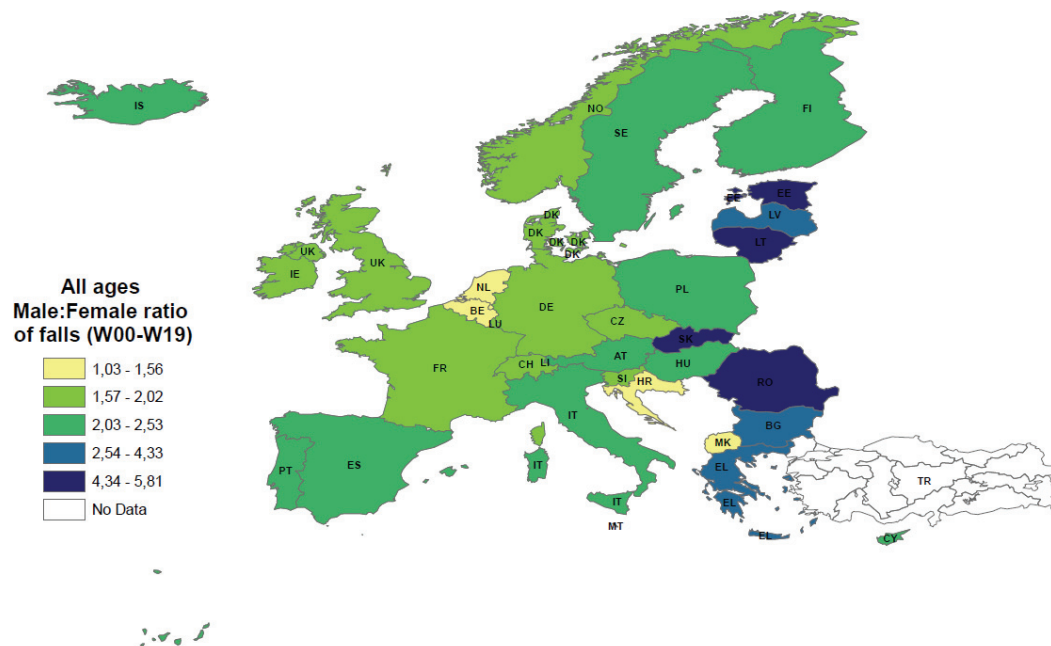


Source: Eurostat hlth_cd_acdr

Petridou et al., (2008) compared cause-specific unintentional injury mortality trends among elderly (+65) in the EU (data from 23 countries) over a 10 year period (1993-2002). Over the last available 3 years of the study period, accidental falls accounted for the majority of unintentional injury deaths (51%). There was also great variability across countries, with rates (per 100,000 person-years) ranging from ≤ 15 (Spain and Greece) to > 150 (Hungary and Czech Republic). The authors hypothesised that the inter-country injury

variability could be related to the prevalence of osteoporosis linked to climate and nutritional differences; variations in the sources used for coding the cause of death among different countries; and differences in coding with respect to the role of falls in conjunction with leading chronic causes of death at older ages.

Map 2.4.3 Male:female ratio of falls, all ages

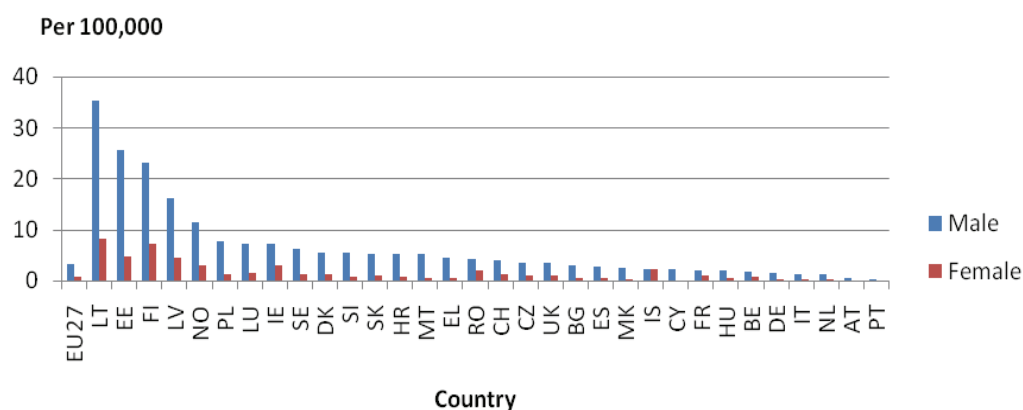


Source:

2.4.6.2 Accidental Poisoning and exposure to noxious substances

Deaths from accidental poisoning and exposure to noxious substances are higher for men than for women across the EU, with deaths rates being particularly high in Eastern European countries (Fig. 2.4.26).

Fig. 2.4.26 Age standardised death rates for Accidental poisoning by and exposure to noxious substances, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

2.4.6.3 Injuries – Sport

Sport makes an important contribution to the health and physical fitness of society and to the EU's overall strategic objective of solidarity and prosperity (EUGLOREH, 2007). Many sports, however, carry inherent risks. It is estimated that approximately 6 in 1000 unintentional fatal injuries can be attributed to sports such as rock climbing, boating sports or horse related sports (Baur & Steiner, 2009). This corresponds to approximately 1,000 fatalities per year in the EU 27. When drowning (in natural water and swimming pools) and non-traffic bicycle accidents are included, 36 in 1,000 unintentional injuries can be attributed to sporting activities. This equates to an estimated 7,000 fatalities per year (ibid). Adolescents/young people are over-represented in most categories of sports-related injuries. For example, in an audit of sports injuries in children (n=238) attending an Accident & Emergency department in Scotland, the incidence of injury was much higher in boys (71%) than in girls, with football (39%) and rollerblading (14%) accounting for the highest proportion of injuries (Boyce & Quigley, 2003).

Some 18% of injury related hospital admissions and 30% of all medical injury related interventions are due to sports activities (EUGLOREH, 2007). This corresponds to 4.5 million people aged 15 and over being treated in hospital for a sports injury (as defined by the EU IDB catalogue of sports; Baur & Steiner, 2009). Some 25% of sports injuries affect the 15-24 old category. Team ball

sports account for approximately 40% of all hospital-treated sports injuries (ibid).

The overall incidence of sports-related injuries is higher in men (67%) than in women, reflecting, in part, men's higher participation levels in sport (Eurobarometer, 2010). For example, in a review of sports injuries (n=2270) over a one year period in the Accident and Emergency Department at the Royal Infirmary, Edinburgh, 88.7% of injuries occurred in men, with football and rugby being the most frequent sports responsible for injury (Watters et al., 1984). Men tend to engage in sports that are physically dangerous such as scuba diving, parachuting, hand gliding and body contact sports (Zuckerman, 1994), and take greater risks in sport than women (Kraus and Conroy, 1984), which are factors that also give rise to a higher incidence of sporting injuries in men (EUGLOREH, 2007). For example, being male [along with alcohol consumption] were found to be the two largest risk factors associated with injuries and fatalities in snowboarding in a US context (Sy & Cordon, 2005). In a review of 152 accidental deaths associated with mountain tourism and sports in the Republic of Kabardino-Balkaria, most of the victims were found to be male under the age of 30 (Mechukaev & Mechukaev, 2006). In the United States, men account for 91% of all boating fatalities (US Department of Homeland Security, 2007). For men, taking risks and foregoing safety through sport, have long been regarded as masculine defining, and are practices that are valorised and sustained through wider gendered systems and structures within sporting organisations (Sabo, 1995; Messner, 1992, Connell, 1995).

There has been an increasing focus on sports-related violence as a form of interpersonal violence (Fields et al., 2007). Violence and intimidation are more common in heavy-contact and collision sports, giving rise to a tendency to tolerate sports-related violence 'as part of the game' (Shields, 1999). Nevertheless, sports-related violence has been found to result in serious physical and psychological injuries to its victims (Campo et al., 2005). It has also been proposed that the focus in the sports media on personal rivalry, conflict, and fierce competition reinforces the social attitude that violence and aggression are normal and natural expressions of masculine identity (Children Now, 1999).

2.4.7 Violence

The World Health Organisation (2002) defines violence as:

"The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation"

The typology used in the World report on violence and health categorises violence according to who commits the violent act - self-directed violence, interpersonal violence and collective violence, and also encapsulates the nature of violent acts, (which can be physical, sexual or psychological or involve deprivation or neglect), the relevance of the setting, the relationship between the perpetrator and victim, and, in the case of collective violence, the possible motives for the violence. From a sex and gender differences perspective, such distinctions are important, since women have been found to be over-represented among victims of intimidation and psychological violence, while men are more at risk of physical violence and assault (European Foundation for the improvement of living and working conditions, 2003).

Measuring violence presents a number of challenges, not least being the inconsistencies that are to be found in defining and collecting data on violence across different countries. Because violence has become so pervasive, it has come to be seen as an inevitable part of the human condition (WHO, 2002). A German study that explored men's experiences of interpersonal violence noted that:

"Certain forms of violence are so normal in men's lives that the men themselves do not perceive them as violence and therefore have only limited memory of them." (BMFSFJ, 2004, p5)

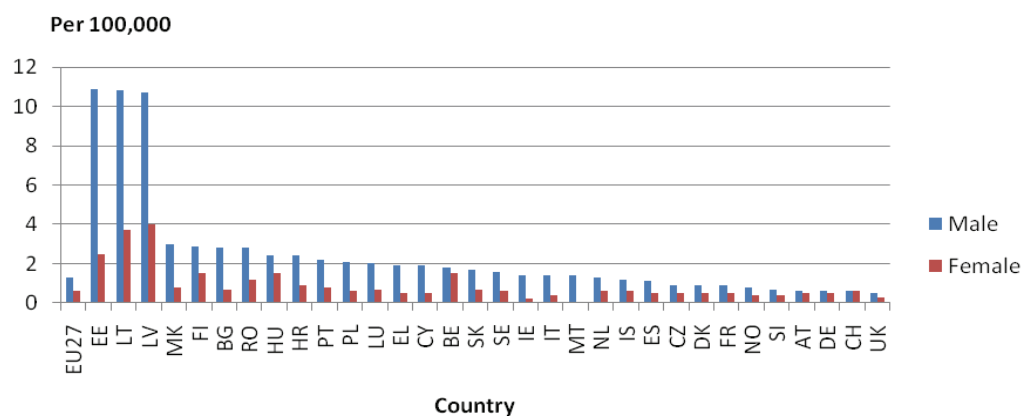
It has also been shown that the risk for males of becoming the victim of violent acts is far greater during childhood and adolescence than in adult life (BMFSFJ, 2004). Children who are exposed to violence are also more likely to become a violent offender themselves in later life (Moses, 1999). At a policy level, the focus is broadening, with increasing emphasis on prevention, addressing the root causes of violence, expanding knowledge and raising public awareness, and developing a better understanding of the structural and cultural conditions that

help to foster lives free of violence (WHO, 2002; BMFSFJ, 2004; Puchert et al., 2007). There is also an increasing realisation of a lack of appropriate support services for men and boys and that men are not making use of such services that do exist, either because the men themselves and/or their environment do not perceive the violence they experience as such (BMFSFJ, 2004).

2.4.7.1 Interpersonal Violence³⁸ & Assault

Approximately 2% of all fatal injuries in the EU 27, or about 5,500 deaths annually, are related to homicide (Bauer & Steiner, 2009). Whilst the average rate of homicide is 1.5 per 100,000 for men (0.7 for women) it is higher in cities (1.9 for men). The homicide rate for males in the Baltic region is over 10 (Fig. 2.4.27).

Fig. 2.4.27 Age standardised death rates for Assault, by sex and country, all ages, latest year¹

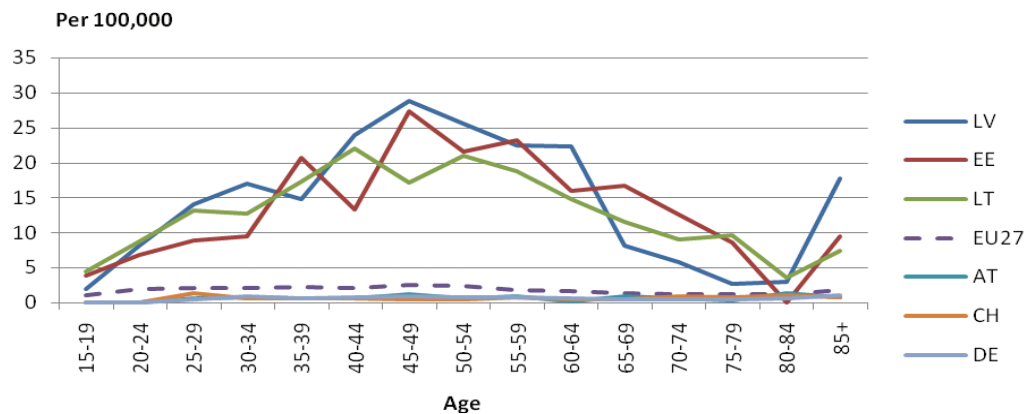


Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IS, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

There is a marked rise in the homicide rate for males after the age of 15 with another peak occurring in very old age (>85 years) (Fig. 2.4.28).

³⁸ Interpersonal violence takes many forms (physical, mental and sexual), occurs in different environments (the family, between intimate partners, in the community, in institutions and at work) and includes domestic violence, child abuse, elder abuse and youth violence (Bauer and Steiner, 2009)

Fig. 2.4.28 Age specific death rates for homicide, male, 3 year average, for selected countries



Source: Eurostat hlth_cd_ycdf; hlth_cd_ycdrm

With the exception of sexual violence (for which 90% of victims are women), the vast majority of interpersonal violence victims are male and the perpetrators of violence are also predominantly male (72%) (Bauer & Steiner, 2009), although clearly, not all men are violent. ‘Violent dispute’ accounts for the vast majority (85%) of non-fatal injuries through interpersonal violence. In addition to the more obvious physical effects, interpersonal violence can have severe repercussions on mental health. This can include feelings of dissociation, post-traumatic stress disorder-like symptoms, anger and depression (Buka et al., 2001). It should also be acknowledged that interpersonal violence data derived from mortality and hospitalisation data is likely to represent a mere fraction of the overall incidence of interpersonal violence, with only a small minority of physical assaults resulting in death or severe injury requiring hospitalisation (Harrison & Tyson, 1993; Voukelatos & Mitchell, 2009).

Puchert et al., (2007) emphasise the importance of understanding violence within the socio-cultural context of people’s lives and, in particular, of acknowledging how prevailing relations of power – particularly those that lead to inequalities and discrimination - constitute a framework within which violence often occurs. Connell (1995) highlights the prevalence of violence in maintaining what he describes as the ‘patriarchal dividend’, and that it is predominantly men who hold and use violence to sustain their dominance. A number of studies (see Hong, 2002) have linked traditional male gender roles and hegemonic masculinity with violence, and with a much greater propensity for men to be perpetrators and victims of violence:

“The motivation for all male violence is related to males attempting to reinforce and render incontestable their heterosexual masculinity.” (ibid)

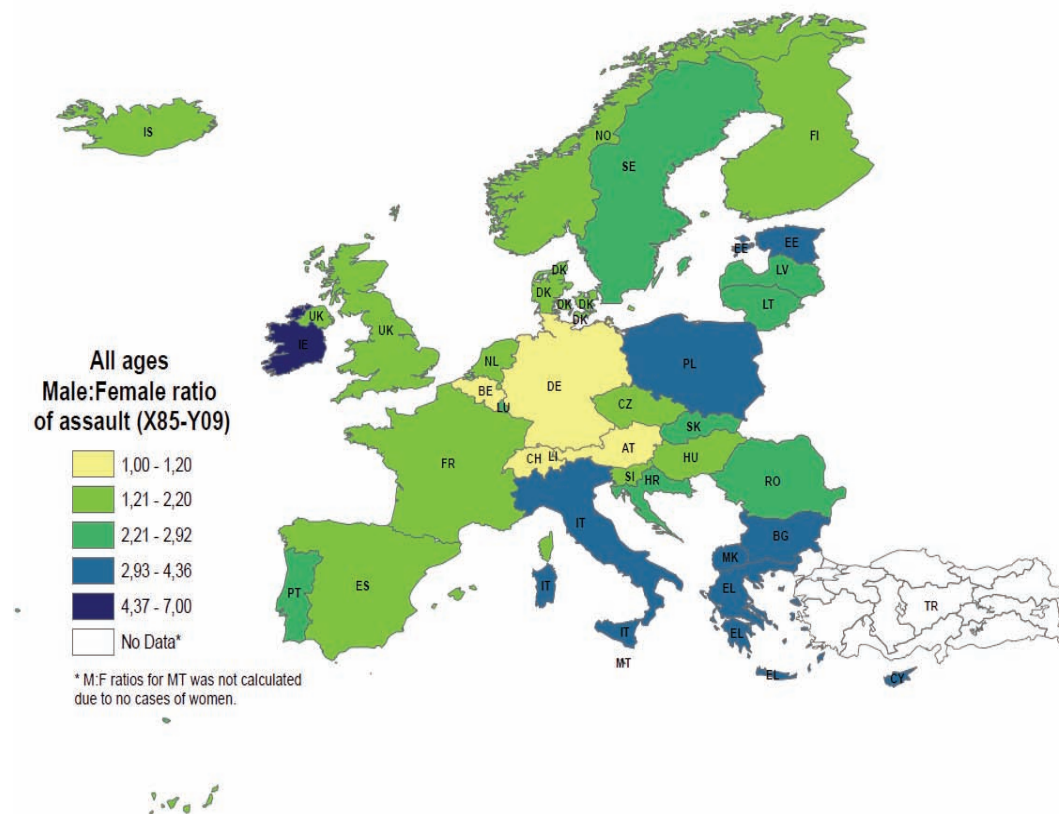
Kimmell (1995) also notes that it is the willingness and desire to fight that is one of the strongest markers of masculinity - ‘a positive obligation to reciprocate violence’ (Connell, 1995:99), which is based on the belief that violence is always justified when someone else starts it. The sense of obligation to uphold ‘honour’ or to reciprocate violence can be magnified considerably in the context of drinking (Brooks, 2001). Meuser (2002) differentiates between two forms of male violent action, emphasizing that both are gendered in specific ways: ‘reciprocal’ versus ‘asymmetrical’. Reciprocal violence, though directly targeting other men and not women, contributes to the reproduction of hegemonic masculinity and the masculine habitus. Whereas male violence against women solely degrades its victims, thus reinforcing women’s subordinated position in the gender order. Reciprocal violence allows for mutual acknowledgement within the competitive relations between men, related to notions of male honour. According to Meuser (2002), male violence should not be viewed as a case of disorder or deviance, but rather as a resource: a means of reproducing the gender order and male dominance.

Like Meuser, Whitehead (2005) distinguishes two forms of male violence, though giving them different names: ‘inclusive’ and ‘exclusive’ violence. By acts of inclusive violence, men position themselves and their opponents as either ‘Heroes’ or ‘Villains’, mutually affirming their status as men and ‘worthy’ rivals. Exclusive violence, in contrast, degrades the attacked to the position of the ‘Non-Man’: Thus, through violence, he [the perpetrator] excludes the victim from the category ‘man’ as unworthy of belonging there. Such violence in its extreme, overt form, is characterised by overwhelming force, removing any pretence of competition, and humiliation on a sexual level. Such violence may manifest itself, for example, in a vigilante attack on a man who is perceived by the perpetrators as a ‘paedophile’, or in an attack against a gay man. There has been a growth of research in recent years which suggests that prejudice-driven violence directed against lesbian, gay, bisexual, and transgender (LGBT) people is widespread (see Tomsen & Markwell, 2009; Moran et al., 2003). In a study of antigay behaviours among young adults, Franklin (2000) found that many young adults believed that antigay harassment and violence was socially acceptable, particularly in response to inferred sexual innuendos or gender norms violations. With antigay behaviours being culturally normative and

mostly going unreported, the study concluded that educational outreach to adolescents and preadolescents is likely to be a more effective prevention strategy than a criminal prosecutions approach.

Schuck (2009) extends Whitehead's category of 'exclusive violence' to include violence against women, not just men; and he further subdivides the 'exclusive violence' into the categories of 'disciplinary exclusive violence' and 'eliminatory exclusive violence'. Studies of 'hate crimes' – that can be seen as cases of eliminatory exclusive violence – might benefit a lot from including a perspective on gender and masculinity (see Tomsen, 2009).

Map 2.4.4 Male:female ratio of assault, all ages



Source:

2.4.7.2 Workplace Violence

Violence in the workplace can take many different forms, ranging from abusive language, threats and bullying to physical assault and homicide (Wassell, 2009). In addition to criminal intent incidents, violence can result from hostile customer/ client confrontations, conflict between work colleagues, as well as personal relationship incidents involving domestic violence expressed in the workplace (ibid). The occupations with the greatest risk of occupational violence

incidents include retail sales, law enforcement, teaching, health care, transportation and private security (Peek-Asa et al., 2001). Previous studies (see Wassell, 2009) have categorised workplace violence into four broad types:

- I. External/intrusive violence: comprising workplace violence incidents of criminal intent by unknown assailants (e.g. robbery, terrorist acts)
- II. Consumer related violence: comprising workplace violence acts involving customer/patient/client and family violence against staff
- III. Relationship violence: comprising worker-on-worker violence (e.g. bullying, sexual harassment)
- IV. Organisational violence: workplace violence promoted or condoned by organisations against staff, consumers/clients/patients

A report on violence prevention in the workplace (European Foundation for the improvement of living and working conditions, 2003) identified contributing factors of an individual, situational, organisational and societal nature, and called for a more holistic approach to understanding and preventing workplace violence. Workplace violence also carries considerable financial costs, in terms of sickness absenteeism, premature ill health and retirement, higher rates of staff turnover, reduced job satisfaction and productivity, and increased insurance premiums (ibid).

Evidence of physical violence from northern European countries (see European Foundation for the improvement of living and working conditions, 2003), suggests that between 2%-10% of the population have been exposed to physical violence. In a German study of men's experiences of interpersonal workplace violence, psychological violence was found to be more predominant in the workplace than in other settings (BMFSFJ, 2004). This took various forms and included being insulted, intimidated, shouted at aggressively by superiors or colleagues, having one's character defamed or being ridiculed, belittled or humiliated. Representative studies in European countries have explored bullying, as a core element of workplace violence (see Puchert, 2007). Puchert et al., identify four thematic categories that consistently emerge from these studies, namely: gender, discrimination based on 'othering'³⁹, competition and cooperation, and power and participation. Most national studies do not show significant gender differences in rates of exposure to physical violence or

³⁹ 'Othering' refers to the construction of groups, based on stereotypes, as 'others' in other to copper fasten one's own 'normality', e.g. homophobia, racism and discrimination of minority groups (Eggers, 2005 as cited in Puchert et al., 2007)

bullying; males are more likely to be perpetrators of bullying than females; rates of sexual harassment in the workplace are much higher for women than for men; workplace policies and practices that promote gender equality act as protective environmental factors to lower the incidence of bullying; competition, rivalry and envy are commonly associated with bullying; supervisors are involved in between one half and three-quarters of bullying cases; poor leadership or abdication of leadership responsibilities can create a fertile environment for bullying between colleagues or peers; and being of a young age, employed in a precarious job or working in the informal sector are also risk factors for being bullied. Strategies directed at preventing bullying emphasise the importance of an open and secure climate and working environment; making provisions for the free flow of information and openness in communication where bullying is brought to light; having clear sanctions against bullying; and establishing clear boundaries as to what constitutes acceptable and unacceptable behaviour in the workplace.

A number of studies have identified health care as having particularly high rates of workplace violence, with emergency care workers being particularly vulnerable (see Peek-Asa et al., 2007). It has also been reported that boys and men are much more likely to be exposed to violence in specific institutional contexts, particularly with regard to the military (BMFSFJ, 2004; Connell, 1995). For example, the BMFSFJ study highlighted that the memory of extreme situations from the Second World War had left an indelible mark on many participants. The same study found that many acts of violence were accepted as being a normal part of military service. In particular, psychological violence in the form of being bullied, insulted or humiliated; being forced to say or do something against one's will; or having one's freedom curtailed; far exceeded levels that were subsequently experienced in civilian life.

In a review of workplace violence intervention effectiveness, Wassell (2009) highlighted environmental designs in the retail industry setting and violence-prevention training for healthcare workers as important and effective interventions. The report from the European Foundation for the improvement of living and working conditions (2003) emphasised the need for increased research targeted at specific sectors, occupations and types of violence to inform policy making and legislative initiatives, both at a European and national levels.

2.4.7.3 Domestic Violence

Whilst domestic violence or intimate partner violence (IPV)⁴⁰ occurs in all countries and across all cultures (WHO, 2002), there is a dearth of data in relation to the prevalence of IPV across the EU. Many methodological difficulties exist in relation to the collation of data within and between countries. Reporting of IPV is highly sensitive to the particular definitions used, the manner in which questions are asked, the degree of privacy in interviews and the nature of the population being studied (Ellsberg et al., 2001). It must be noted that IPV can take many forms both between and within genders. Perpetration of violence against children seems to play a particularly significant role in the transmission of violence from one generation to the next (Delsol & Gayla, 2004).

Cross-cultural data on IPV can also be difficult to interpret because of differences in cultural definitions or perceptions of IPV between countries (Serbanescu & Goodwin, 2005). Data from individual Member States would suggest that the prevalence of domestic violence is somewhere between 5% and 20% of all current heterosexual relationships, with women being substantially more likely to be victims and men substantially more likely to be perpetrators (WHO, 2002; Foege et al., 1995; McKeown and Kidd, 2002; Meil (2005). Not surprisingly, the focus of much of the research on IPV has tended to be on violence perpetrated against women (Wood, 2004; Peralta, Tuttle et al., 2010). One review of levels of domestic violence perpetrated against women in Eastern European countries, reported levels ranging from 5% in Romania to 29% in Georgia for reported lifetime experiences of spousal physical abuse. The same report highlighted that physical abuse during the past 12 months ranged from 2% in Georgia to 10% in Romania (Serbanescu & Goodwin, 2005).

In a review of 48 population based surveys of physical assault perpetrated against women, between 11% and 58% of women [in the 6 European countries included in the study] reported being physically assaulted by an intimate partner at some point in their lives (Heise et al., 1999). The risk of severe domestic violence has been found, in an Irish context, to be higher for women than for men (15% v 6%; Watson & Parsons, 2005); whilst the outcomes of domestic violence in terms of physical and psychological injuries tend to be

⁴⁰ Domestic violence or intimate partner violence is defined as any behaviour within an intimate relationship resulting in physical, psychological or sexual harm to those in the relationship (WHO, 2002)

considerably more negative for female victims than for male victims (WHO, 2002; McKeown & Kidd, 2002). It has been reported that physical violence in intimate relationships is often accompanied by psychological abuse and in one-third to over one half of cases by sexual abuse (WHO, 2002).

With studies on IPV in the past tending to focus on acts of physical violence, this has tended to hide the atmosphere of terror that sometimes permeates violent relationships (Rodgers, 1994). For both men and women, physical inter-partner violence has been associated with increased risk of current poor health; depressive symptoms; substance use; and developing a chronic disease, chronic mental illness, and injury (WHO, 2002; Coker et al., 2002; Hines & Douglas, 2009). IPV can also be attributable to fatal health consequences, including AIDS-related mortality, maternal mortality, homicide and suicide (WHO, 2002). Risk factors for IPV include a broad range of individual, relationship, community and societal factors (see WHO, 2002). A range of misogynist rationales have been identified to explain men's violence against women, ranging from male entitlement to hatred of women (see Puchert et al., 2007).

2.4.7.4 Male Perpetrators

The recent development of intervention work with male perpetrators of domestic violence within Member States⁴¹ is founded on the understanding that domestic violence is unacceptable under any circumstances, and seeks to facilitate and enable men to work with other men to stop it. Underpinning such an approach is an explicit focus on the protection of women and children (and other men) as part of a multi agency approach to programme delivery. The experience of programme delivery has also indicated that male participants experience a cycle of adverse health outcomes, including mental health issues and addictions, arising from their violent behaviour (Department of Health & Children, 2008). It points to the need for increased research and evaluation to be carried out on the impact that the perpetration of violence has on the health of perpetrators themselves, particularly in relation to mental health, the use of anger and alcohol abuse, and the effectiveness of intervention programmes in reducing violent behaviour and in improving the health status of perpetrators. In a study that examined effective strategies for engaging abusive men, Campbell et al., (2010) found that male perpetrators of IPV were reluctant to

⁴¹ Examples include programmes co-ordinated by Men's Development Network and 'MOVE' in Ireland (Department of Justice, Equality and Law Reform);

seek help because of inherent male gender role attitudes. Those that did seek help were more likely to do so with someone whom they felt was trustworthy, non-judgemental and knowledgeable.

The World Health Organisation (2002, p110) identifies a number of key principles to help guide 'good practice' in the area of IPV, including:

- Actions to address violence should take place at both national and local level
- The involvement of women in the development and implementation of projects and the safety of women should guide all decisions relating to interventions
- Efforts to reform the response of institutions – including the police, healthcare workers and the judiciary – should extend beyond training to changing institutional cultures
- Interventions should cover and be coordinated between a range of different sectors

The Council of Europe (2009) also calls for increased access to effective intervention programmes for perpetrators of domestic violence in order to prevent and minimise the risk of repeated offending. It recommends that such access should be ensured throughout the whole criminal justice process, (while in custody as well as in the wider community) and that programmes should address both the individual factors for domestic violence (aggression management, substance abuse etc.) as well as its community aspects.

2.4.7.5 Male Victims

There is a lack of data on the impact of IPV on men in the EU. Population-based surveys in the USA indicate that 25% to 50% of victims of IPV are men (Hines & Douglas, 2009). Estimates from national family violence surveys in the US show that approximately 12% of men are the targets of some sort of physical aggression from their partners, with 4% exposed to severe violence (ibid).

Nevertheless, tackling IPV as an issue for male victims has been constrained in the past by a general consensus that men are the only perpetrators of IPV and women are its only victims and by reluctance on the part of male victims to report incidents of IPV to the appropriate authorities (Watson & Parsons, 2005). Male victims may be less likely to seek help for an issue that society deems they should be able to handle themselves (Addis & Mahalik, 2003) or because of fear of being ridiculed or feeling embarrassed (McNeely et al., 2001). Data from

the US shows that IPV by women against men is associated with a range of physical injuries and various mental health problems in men, including depression, stress, psychosomatic symptoms and general psychological distress (Hines & Douglas, 2009). The literature indicates that criminal justice and social service agencies are often unsure of how to respond to or provide services to female perpetrators or male victims (ibid).

There is therefore a need to move beyond the argument over who perpetrates more IPV and who suffers more as a consequence of IPV (ibid). Because the prevalence of male victimisation may be lower and the injuries and health consequences to male victims may be less widespread or less severe on average, there is, nevertheless, a very real danger of overlooking the very severe consequences suffered by many men who sustain IPV (ibid). As highlighted by Ireland's National Men's Health Policy (Department of Health and Children, 2008), there is a need for the provision of increased training and awareness raising to all those involved in dealing with male victims of domestic violence – police, social workers, doctors and other service providers – so that they are sensitive to the fact that victims can be male as well as female, and to the potentially wide-ranging impact of domestic violence on victims.

2.4.8 References

- Addis ME, Mahalik JR (2003) Men, masculinity and the contexts of help seeking. *American Psychologist* 58:5-14
- Anderson P, Baumberg B (2006) Alcohol in Europe: A Public Health Perspective. A Report for the European Commission. Available at: http://ec.europa.eu/health-eu/news_alcoholineurope_en.htm last accessed 11/11/10
- Bauer R, Steiner M (2009) Injuries in the European Union: Statistics Summary 2005-2007 Available at: <https://webgate.ec.europa.eu/idb/> accessed 11/11/10
- Bernhoft IM, Hels T, Hansen AS (2008) Trends in Drink Driving Accidents and Convictions in Denmark. *Traffic Injury Prevention* 9(5):395-403
- BMFSJ (2004) Violence against men, Men's experiences of interpersonal violence in Germany – Results of the pilot study. Available at: <http://www.cahrv.uni-osnabrueck.de/conference/SummaryGermanMenstudy.pdf>
- Boyce SH, Quigley MA (2003) An audit of sports injuries in children attending an Accident & Emergency department. *Scottish Medical Journal* 48(3):88-90,

- Brookes GR (2001) Masculinity and men's mental health. *Journal of American College Health* 49(6): 285-97
- Buka S, Stichnick T, Birdthistle I et al., (2001) Youth exposure to violence: prevalence, risks and consequences. *Am J Orthopsychiatry* 71(3):298-310
- Campbell M, Nel JA, Jaffe PG et al., (2010). Engaging abusive men in seeking community intervention: A critical research & practice priority. *J Fam Vio* 25:413-422
- Campo S, Poulos G, Sipple JW (2005) Prevalence and Profiling: Hazing among college students and points of intervention. *American Journal of Health Behaviour* 29(2):137-149
- Children Now (1999) Boys to Men: Media Messages About Masculinity. Available at: www.publications.childrennow.org last accessed 11/11/10
- Coker AL, Davis KE, Arias I et al., (2002) Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine* 23(4):260-8
- Connell RW (1995) *Masculinities*. Cambridge: Polity Press
- Council of the European Union (2007) Recommendation of the Council of the European Union of 31 May 2007 on the prevention of injuries and the promotion of safety. OJ, 2007, C164/1. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2007:164:0001:0002:EN:PDF> Last accessed 13/12/10
- Council of Europe (2009) Report presented by Minister of Justice of Norway. 29th Council of Europe Conference of Ministers of Justice. Breaking the Silence: United against Domestic Violence. 18-19th June 2009, Tromsø, Norway. Available at: www.coe.int/minjust last accessed 11/11/10
- Sanco DG (2009) Injuries to Vulnerable Road Users. Including Falls in Pedestrians in the EU – A Data Report. Final Report of DG Sanco project. "Strategies and best practices for the reduction of injuries" (APOLLO). Vienna, KfV
- Delsol C, Gayla M (2004) The role of family-of-origin violence in men's marital violence perpetration. *Clinical Psychology Review* 24(1):99-122
- Di Martino V, Hoel H, Cooper CL (2003) Preventing violence and harassment in the workplace. Brussels: European Foundation for the Improvement of Living and Working Conditions. Available at: <http://www.eurofound.europa.eu/pubdocs/2002/112/en/1/ef02112en.pdf> last accessed 13/12/10
- Directorate General of Human Rights and legal Affairs (2008) Factsheet: The Council of Europe Campaign to Combat Violence against Women, including

- Domestic Violence. Available at: <http://www.coe.int/stopviolence/intergov> last accessed 11/11/10
- Edleson JL, Brygger M (1986) Gender Differences in Reporting of Battering Incidences. *Family Relations* 35(3): 377-382.
- Eggers MM (2005) Rassifizierte Machtdifferenz als Deutungsperspektive in der kritischen Weißseinsforschung in Deutschland. Zur Aktualität und Normativität diskursiver Vermittlungen von hierarchisch aufeinander bezogenen rassifizierten Konstruktionen, in: Eggers MM, Kilomba G, Piesche P et al., (eds.) *Mythen, Masken und Subjekte. Kritische Weißseinsforschung in Deutschland*, Münster: Unrast
- Ellsberg L, Heise R, Pena S et al., (2001) Researching domestic violence against women: methodological and ethical considerations. *Studies in Family Planning* 32: 1-16
- ETSC (2009) PIN Flash 15 – Set targets for serious injury reduction in Europe. Available at: <http://www.etsc.eu/PIN-publications.php> last accessed 11/11/10
- EUGLOREH (2007) The status of health in the European Union: towards a healthier Europe. Available at: http://euglorehcd.eulogos.it/IXT/_EXT-REP/_INDEX.HTM last accessed 11/11/10
- European Agency for Safety and Health at Work (2002) Inventory of socioeconomic costs of work accidents. Available at: <http://webcache.googleusercontent.com/custom?q=cache:X4168527o4wJ:osh.a.europa.eu/en/publications/reports/207+costs+of+workplace+injury+in+the+EU&cd=1&hl=en&ct=clnk&gl=ie&client=pub-8483989772927003> last accessed 11/11/10
- European Commission (2008) *Causes and Circumstances of Accidents at Work in the EU*. Luxembourg, Office for Official Publications
- European Foundation for the improvement of living and working conditions (2003) *Preventing violence and harassment in the workplace*. Available at: <http://www.eurofound.europa.eu/pubdocs/2002/109/en/1/ef02109en.pdf> last accessed 13/12/10
- European Transport Safety Council (2009) *2010 on the Horizon: 3rd Road Safety PIN Report*. Available at: <http://www.etsc.eu/documents/ETSC%20PIN%20Annual%20Report%202009.pdf> last accessed 11/11/10
- Farrow JA, Brissing P (1990) Risk for DWI: A new look at gender differences in drinking and driving influences, experiences and attitudes among new adolescent drivers. *Health Educ Q* 17(2): 312-321

- Fenton B, Rathus JH (2010) Men's self-reported descriptions and precipitants of domestic violence perpetration as reported in intake evaluations. *Journal of Family Violence* 25(2): 149-158
- Fields SK, Collins CL, Comstock RD (2007) Conflict on the courts: A review of sports-related violence literature. *Trauma, Violence and Abuse* 8(4): 359-369
- Foege WH, Rosenberg ML, Mercy JA (1995) Public health and violence prevention. *Current issues in Public Health* 1:2-9
- Franklin K (2000) Antigay Behaviors Among Young Adults: Prevalence, Patterns, and Motivators in a Noncriminal. *Population J Interpers Violence* 15(4): 339-362
- Gracia E, Herrero J (2006) Acceptability of domestic violence against women in the European Union: A multilevel analysis. *Journal of Epidemiology and Community Health* 60(2): 123-129
- Gregersen NP, Bjurulf P (1996) Young novice drivers: Towards a model of their accident involvement. *Accident Analysis & Prevention* 28: 229-241
- Harrison J, Tyson D (1993) Injury surveillance in Australia. *Acta Paediatr Jpn* 35(3): 171-178
- Haegi M (2002) A new deal for road crash victims. *BMJ* 324: 1110
- Heise LL, Ellsberg M, Gottemoeller M (1999) Ending violence against women. . Baltimore, MD Johns Hopkins University School of Public Health, Centre for Communications Programs (Population Reports, Series L, No 11)
- Hines DA, Douglas EM (2009) Women's use of intimate partner violence against men: Prevalence, implications, and consequences. *Journal of Aggression, Maltreatment and Trauma* 18(6): 572-586
- Holder Y, Peden M, Krug E et al., (Eds). (2001). *Injury surveillance guidelines*. Geneva, WHO Available at: <http://whqlibdoc.who.int/publications/2001/9241591331.pdf> last accessed 13/12/10
- Hong L (2002) Toward a transformed approach to prevention: Breaking the link between Masculinity and Violence. *Journal of American College Health* 48: 269-79
- Kannus P, Sievanen H, Palvanen M et al., (2005) Prevention of falls and consequent injuries in elderly people. *Lancet* 366: 1885-1993
- Kimmel M (1995) *The politics of manhood*. Philadelphia: Temple University Press
- Kisser R, Latarjet J, Bauer R et al., (2009) Injury data needs and opportunities in Europe. *International Journal of Injury Control & Safety Promotion* 16(2): 103-12

- Kraus JF, Conroy C (1984) Mortality and morbidity from injuries in sports and recreation. *Annu Rev Public Health* 5: 163-192
- MacKay JM, Vincenten J (2009) Why isn't more injury prevention evidence-based? *International Journal of Injury Control and Safety Promotion* 16(2):89-96
- McKeown K, Kidd P (2002) *Men and Domestic Violence: What Research Tells Us*. Dublin, Department of Health and Children
- McNeely RL, Cook PW, Torres JB (2001) Is domestic violence a gender issue, or a human issue? *Journal of Human Behaviour in the Social Environment* 4:227-251
- Mechukaev AM, Mechukaev AA (2006) Analysis of accidental deaths in mountain tourism and sport according to statistics from the Republic of Kabardino-Balkaria. *Sudebno-Meditsinskaia Ekspertiza*. 49(4):10-4
- Meuser, M (2002) "Doing Masculinity" – Zur Geschlechtslogik männlichen Gewalthandelns, in: Dackweiler, Regina Maria /Reinhild Schäfer (eds.): *Gewalt-Verhältnisse. Feministische Perspektiven auf Geschlecht und Gewalt*, Frankfurt am Main/New York, Campus, 73-78.
- Meil (2005) *Social Surveys on Domestic Violence against Women in Spain*. Paper delivered at CAHRV European conference on interpersonal violence, Paris, Sept 26th. Available at: <http://www.cahrv.uni-osnabrueck.de/reddot/216.htm> last accessed 11/11/10
- Messner M (1992) *Power at play*. Boston, Massachusetts, Beacon Press
- Mladovsky P, Alin S, Masseria C et al., (2009) *Health in the European Union: Trends and analysis*. United Kingdom, European Observatory on Health Systems and Policies
- Mongan D, Hope A, Nelson M (2009) *Social consequences of harmful use of alcohol in Ireland*. HRB Overview Series 9. Dublin, Health Research Board
- Moran L, Skeggs B, Tyrer P et al., (2003) *Sexuality and the politics of violence and safety*. New York, Routledge
- Moses A (1999) Exposure to violence, depression and hostility in a sample of inner city high school youth. *J Adolesc* 22: 21-32
- Peek-Asa C, Runyan CW, Zwerling C (2001) The role of surveillance and evaluation research in the reductions of violence against workers. *American Journal of Preventive Medicine* 20: 141-148
- Peek-Asa C, Casteel C, Allareddy V et al., (2007) *Workplace violence prevention programmes in hospital emergency departments*. *J Occup Environ Med* 49: 756-763

- Peralta L, Tuttle LA, Steele JL, (2010) At the intersection of interpersonal violence, masculinity and alcohol use: The experiences of heterosexual male perpetrators of intimate partner violence. *Violence against Women* 16(4): 387-409
- Petridou E Th, Dikaloti SK, Dessypris N et al., (2008) The evolution of unintentional injury mortality among elderly in Europe. *J Aging Health* 20: 159-182
- Puchert R, Busche M, Schuck H (2007) Protective Environmental Factors: Securing Human Rights. Discussion of European research on positive and protective factors particularly in working life, including current restructuring of European labour markets under gender perspectives and surveys on the cultural changes of image and social reality of men. Available at: http://www.cahrv.uni-osnabrueck.de/reddot/Literature_review_SN_4_end.pdf
- Racioppi F, Eriksson L, Tingvall C et al., (2004) Preventing road traffic injury: A public health perspective for Europe. Copenhagen, WHO
- Rodgers K (1994) Wife assault: the findings of a national survey. *Juristat Service Bulletin* 14: 1-22
- Rogmans W (2009) Editorial. *International Journal of Injury Control and Safety Promotion* 16(2): 63-64
- Rogmans W, Machard L, Weill F (2009) Call for cross governmental leadership cooperation among multiple stakeholders in preventing injuries in Europe: Conclusions of the 2nd European Conference on Injury Prevention and Safety Promotion (2008) *International Journal of Injury Control and Safety Promotion* 16(2): 97-101
- Sabo DF (1995) Caring for men. In J. M. Cookfair (Ed.), *Nursing care in the community* (2nd ed.). St. Louis, MO, C. V. Mosby
- Sarker S, Andreas M (2004) Acceptance of and engagement in risky driving behaviours by teenagers. *Adolescence* 39(156): 687-700
- SATRE (2004) Social Attitudes to Road Risk In Europe 3 European Drivers and Road Risk. Institut National de Recherche sur les Transports et leur Sécurité Available at: <http://sartre.inrets.fr/documents-pdf/repS3V1E.pdf> last accessed 13/12/10
- Schuck, H (2009) Dynamiken der Gewalt. Formen und Sinn männlichen Gewalthandelns, in: *IFFOnZeit* 1(1): 65-82, http://www.iffonzeit.de/aktuelleausgabe/pdf_texte/berichte_uni/schuck/schuck.pdf last accessed 13/12/10

- Schofield T, Connell R, Walker L et al., (2000) Understanding men's health and illness: A gender-relations approach to policy, research and practice. *Journal of American College Health* 48:247-256.
- Serbanescu F, Goodwin M (2005) Domestic violence in Eastern Europe: Levels, risk factors and selected reproductive health consequences. Paper delivered at CAHRV European conference on interpersonal violence, Paris, Sept 26th. Available at: http://www.cahrv.uni-osnabrueck.de/reddot/Serbanescu_and_Goodwin.pdf Last accessed 26/11/10
- Sethi D, Racioppi F, Baumgarten I, et al., (2006) Reducing inequalities from injuries in Europe. *Lancet* 368:2243-50
- Shields EW (1999) Intimidation and violence by males in high school athletics. *Adolescence* 34(135):503-521
- Sklar DP, Demarest GB, McFeeley P (1989) Increased pedestrian mortality among the elderly. *American Journal of Emerging Medicine* 7:387-390
- Sørensen M, Assum T, Eksler V, et al., (2008) Safety Performance Indicator for Alcohol: Data Quality in Selected Countries and Comparison with Other Alcohol Indicators. Deliverable D3.10a of the EU FP6 project SafetyNet
- Sy ML, Cordon TE (2005) The perils of snowboarding. *WMJ* 104(2):32-4,
- Tavares TG (2009) Eurostat – Statistics in Focus: Crime and Criminal Justice. Luxembourg, Office for Official Publications of the European Union.
- Tomsen S, Markwell K (2009) Violence, cultural display and the suspension of sexual prejudice. *Sexuality and Culture* 13:201-217
- Voukelatos A, Mitchell R (2009) patterns of physical violence in youth: the experience of 16 to 25 year olds. *Health Promotion Journal of Australia* 20(1):26-30
- Wassell JT (2009) Workplace violence intervention effectiveness: A systematic literature review. *Safety Science* 47:1049-1055
- Watson D, Parsons S (2005) Domestic Abuse of Women and Men in Ireland – Report on the National Study of Domestic Abuse. Dublin: National Crime Council in association with the Economic and Social Research Institute
- Watters DA, Brooks S, Elton RA et al., (1984) Sports injuries in an accident and emergency department. *Archives of Emergency Medicine* 1(2):105-11
- Whitehead A (2005) Man to Man Violence. How Masculinity May Work as a Dynamic Risk Factor. *The Howard Journal of Criminal Justice* 44(4):411-422.
- WHO (2002) World Report on Violence and Health. Geneva, WHO
- WHO (2005) Injuries and Violence in Europe: Why they matter and what can be done. Summary available at:

http://www.euro.who.int/__data/assets/pdf_file/0007/98404/E87321.pdf last accessed 11/11/10

WHO (2008) Factsheet: Tackling injuries, the leading killers of children.

Available at:

http://www.euro.who.int/__data/assets/pdf_file/0006/98601/FS_TacklingInjuries_Children.pdf last accessed 11/11/10

WHO (2009a) Addressing the socioeconomic safety divide: A policy briefing paper. Copenhagen, WHO Available at:

http://www.euro.who.int/__data/assets/pdf_file/0004/96457/E92197.pdf

WHO (2009b) Socioeconomic differences in injury risks: A review of findings and a discussion of potential countermeasures. Available at:

http://www.euro.who.int/__data/assets/pdf_file/0012/111036/E91823.pdf

Wood JT (2004) Monsters and Victims: male felons' accounts of intimate partner violence. *Journal of Social and Personal Relationships* 21:555-576

Working Group of Governmental Experts on Injury Prevention and Safety

Promotion (2008) How to make Europe a safer place: Key areas for consideration in implementing the Council Recommendation on the prevention of injury and promotion of safety. Available at:

[http://www.eurosafe.eu.com/csi/eurosafe2006.nsf/0/EE9D475AA6DAF58BC125747200411F14/\\$file/Implementation%20Council%20Recom.pdf](http://www.eurosafe.eu.com/csi/eurosafe2006.nsf/0/EE9D475AA6DAF58BC125747200411F14/$file/Implementation%20Council%20Recom.pdf) last accessed 11/11/10

Zuckerman M (1994) Behavioural expressions and biosocial bases of sensation seeking. New York Cambridge University Press

2.5 Mental Health

2.5.1 Main points

- Men's depression and other mental health problems are under detected and under treated in all European countries. This is due to men's difficulty in seeking help, health services' limited capacity to reach out to men, and men's different presentation of symptoms to women with higher levels of substance abuse and challenging behaviours.
- More than three times as many men as women commit suicide and the difference increases to up to five times among the elderly. The higher suicide rates in men are linked to undiagnosed mental health problems.
- Men can suffer from post natal depression which is scarcely recognized problem, but one that can have marked effect on families.
- Sex differences between EU countries regarding incidence, occurrence and admission to treatment for bipolar disease are evident, but difficult to explain.
- Schizophrenia onset is earlier in men than women, with men having poorer long term outcomes, longer inpatient stays and extended periods of impaired functioning.

2.5.2 Summary

Mental ill-health in European men is under-diagnosed and under-treated. Many men seem to find it challenging to seek help when it comes to mental or emotional health problems. It may be difficult for health professionals themselves as well as individual men to identify changes in health behaviour as signs of mental disturbances. There is a lack of adequate assessment tools suitable to diagnose men's symptoms, and a lack of suitable ways of referral for gender specific treatment.

Mental and behavioural disorders due to the misuse of alcohol are one of the most disturbing problems of men's mental health. The deaths of men and women as a result of mental & behavioural disorders due to alcohol show a significant gender difference with three to four times more men dying than women.

There has been a 15% increase in the number of suicides in the last decade. Eight Member States are amongst the fifteen countries with the highest male

suicide rates in the world, with large differences seen between the highest and lowest countries.

In order to address mental health issues more effectively in men, there is a need to address gendered patterns in the upbringing of boys, and to improve our understanding of gendered dimensions to mental health disorders, mental health service delivery and in the behaviours of men themselves.

One very important change that has emerged is in relation to more contemporary approaches to fatherhood. Greater numbers of men attending the births of their children and participating in caring may enhance men's awareness of their own and their family's mental and emotional well being. This may also sensitise men to be more aware of their own mental health and to seek help more promptly (Madsen, 2010).

2.5.3 Introduction

As stated in the European Pact for Mental Health and Well-being (EU, 2008) mental health disorders are a growing problem in Europe with almost 50 million citizens (about 11% of the population) estimated to experience emotional or mental health difficulties. The Pact underlines that women and men are developing and exhibiting different symptoms. Mental health problems account for 20% of the total disability burden of ill-health across Europe (WHO, 2004). There are, however, substantial gaps in knowledge of the prevalence of mental health disorders, not least their occurrence in men; steps to encourage the collection of such data would be helpful to future European comparative analysis.

Europe has seen a decline in the male population's mental health, with increasing rates of alcohol-use disorders, and the continuing high levels of violence and suicide which cause immense suffering for individuals, families and communities. They put pressure on health, education, economic, labour market and social welfare systems across the EU. Data show increasing absenteeism and early retirement due to mental illness (particularly depression) across Europe, for both men and women (Mc Daid, 2008). The reasons behind this decline in European men's well-being might be the great economic and cultural changes having taken place in the European societies during the last decades. As shown below it seems that men are often more vulnerable when society changes.

2.5.4 Men and mental health

Mental ill health includes mental health problems and strain, impaired functioning associated with distress symptoms, and diagnosable mental disorders such as schizophrenia and depression. The mental health and wellbeing of people is determined by a multiplicity of factors, including biology (e.g., genetics, sex differences), individual differences (e.g. personal experiences), family and social factors (e.g. social support) and economic and environmental factors (e.g. social status and living conditions)

Data from the WHO-5 mental well-being score show that in all countries, men report better mental well-being than women (European Foundation for the Improvement of Living and Working Conditions, 2010). However, although more women are diagnosed with depression and anxiety (or internalizing disorders) men commit suicide more often, and men have higher levels of substance abuse and antisocial disorders (or externalizing disorders) (EC, 2004).

Analysis of health service usage demonstrates that men have less contact with health services in general and even less with mental health services. In Denmark, for instance, their National Health System shows 128,000 instances of psychological services received by women and 36,000 such services received by men in 2006 (Danish Nation Board of Health, 2010). It is unlikely that this is an indication that women suffer so much more from psychological problems. If anything, it is necessary to look at some aspects of gender and men's psychology and men's attitude towards seeking help, in order to understand these findings.

When men do contact health services, they tend to be less likely than women to discuss psychological problems (Möller-Leimkühler, 2002). This is reflected by fewer men being known to the health care system prior to suicide, and often not being regarded as depressive or suicidal. Men may be compelled to use other coping strategies such as acting aggressively, being uncooperative with health professionals, rejecting help that is offered to them and, in some cases, reverting to alcohol abuse.

In gender psychology, the research into men's psyche has been linked with masculinity research and anchored in clinical psychology building upon experiences from psychotherapy with men. Here the study of men and

depression has focused on gender specific conditions in societal, their cultural connection, and on the socialization and upbringing of boys. It has been emphasized that, in the functions that men have historically performed (and so strongly represented in the media), it has been important to keep fear and emotions at a distance in order to be able to act, defend, fight, toil for food, hunt, etc. This has led to a transformation of emotional problems into anger, avoidance of self reflection, disregard of one's own condition, and silence with regard to communication of feelings. Boys and men have therefore encountered social norms such as 'big boys don't cry', beware of weakness, you must be able to take care of yourself, it's important not to be dependent on others, etc. This also leads to patterns of withdrawal from relations, to quickly get away from pain, and acting out in response to pressure and loss (Madsen, 2010b). However it is important to stress that men are different and that some men do not carry out their masculinity in these traditional male roles. Such men are also very vulnerable; e.g. homosexual boys and men have very high rates of suicide, anxiety and depression (Lewis, 2009). This links to men's ability to speak about emotions and feelings. The basic idea is that men are socialized to ignore or repress major portions of their emotional life with the exception of certain specific acceptable feelings such as anger and desire (see Frosh et al., 2002). This again leads to 'silence' by men disregarding emotions, especially to other men. In this way it is difficult for men to find the words for, and to speak about, internal conditions and feelings. There is no doubt that women generally find it easier to talk about and to describe feelings and relations and often men will express their fears and anxieties more openly to women, such that men's silence with regard to their emotions must be viewed as largely context-dependent (Ridge et al., 2010; Madsen, 2010a).

2.5.4.1 Men and changes – the extreme gender

It would seem that for men when things are going well, they live in steady and predictable life circumstances with a stable partner and family relationship, a job, and a well defined position; men report 'no problems'. They will also report more wellbeing and a better quality of life than women. However, when confronted with social, economical, and familial changes like divorce, unemployment, being a migrant, with great societal changes, with loss of status, with retirement, with being a widower etc. many men develop more mental health problems than women. This is not the least seen in the development of alcohol and drug abuse and suicide in countries with great economical changes. It is seen with many men becoming homeless after

divorces, as with elderly men when they retire or lose their partners and the dramatic rise in suicide among men under these circumstances. It is furthermore seen with the relatively higher occurrence of criminal and violent behaviour and gang involvement among young migrant men (Madsen & Madsen, 2002).

In this respect men might be viewed as the 'extreme gender' of which a small part dominates the top of society and who for the big majority feel well when things go well, but who on the other side are the majority of the homeless, of the criminals, of alcohol and drug abusers, of people who commit suicide, of having violent behaviour, and subject of violence, imprisonment, divorces etc, when things go wrong.

The data suggests that women manage to cope better after divorce, unemployment, economical downturns, and in retirement. In these situations many more women are able to build on new or existing social networks, and initiate and participate in activities outside work. It is probable that because many men's identities are so closely linked with their profession and their work life that their mental health and well being is synonymous with their work. At the same time men are therefore both strong and vulnerable so that the impact on men through economic crisis and the consequences of unemployment, forced sale of homes, decrease in income etc is greater.

This is reinforced through the findings from research on Danish men (Erlangsen et al., 2004; Kraaj et al., 2002), which has shown that the following circumstances are specific risk factors for older men committing suicide:

- Loss and problems in social networks
 - Loss of spouse
 - Family conflicts
 - Diminishing of network
 - Loss of confidence
- Somatic illnesses & disabilities
 - Stroke
 - Loss of vision and hearing
 - Cancer
 - Chronic pain
- Psychiatric disorders / depression
 - Late arisen depressive disorders

- During antidepressant treatment
- Earlier suicide attempts

This is coupled with information from men who have attempted suicide and knowledge from the suicide letters from of older men (Nordentoft, 2006) that shows that they describe their motives as:

- Loss of work
- Loss of prestige / identity
- Loss of status
- Loss of spouse through death or divorce
- Loneliness, loss, depression
- Being sick / fear of disease
- Loss of options such as their right to drive a car

There appear to be gender differences regarding the access to emotional support in emotionally difficult situations. Population-based research indicates for example that one in five Swedish men aged 50–80 years suffering from cancer is emotionally isolated and has no one to confide in. And seven out of ten men not living with a partner have no one to confide in compared with only three out of ten women in the same situation. Men having no one to confide in are less likely to feel mentally well (Helgason et al., 2001). In order to better understand men's mental health it seems important to find ways to strengthen men's social, relational, cultural, and emotional potentials in areas not related to work. Such a change might already be under way with societal changes and the equality in family and work life men engaging in family life and child care.

One of these very important changes, which will also have an impact on men's health and men's mental health too, is the new fatherhood. The average father's participation in his child's birth and subsequent caretaking is a rather recent phenomenon. In fact, the current movement for men's active participation in the delivery room and in subsequent infant care can be thought of as a revolution in contemporary men's behaviour, in gender relations, and in men's relations with their children. Currently, fathers attend up till 95% of all births (Madsen, 2009). Nordic men take between four and twelve weeks of paternity leave. In Europe more and more men want a caring and family-friendly development both in the workplace and at home, where men and women cooperate more, are less segregated, and interact on a more balanced basis. This 'new fatherhood' has been central to changes in masculine

perceptions in the Nordic region and throughout Europe. It will strengthen men's awareness of their own and their family's mental well being, it will strengthen men's knowledge about mental health and about mental health services, and it will strengthen men's behaviour towards taking care of their own mental health and others' and strengthen their help seeking.

Current research (Möller-Leimkühler 2002; Ridge et al., 2010) on men's mental health and wellbeing suggests that there is a need to develop mental health services that are more suitable for men, increasing men's awareness of and knowledge about mental states and problems and increasing their help seeking behavior. Furthermore there is a need to understand gender specific symptoms and reactions and particularly symptoms and reactions that are more frequent in men.

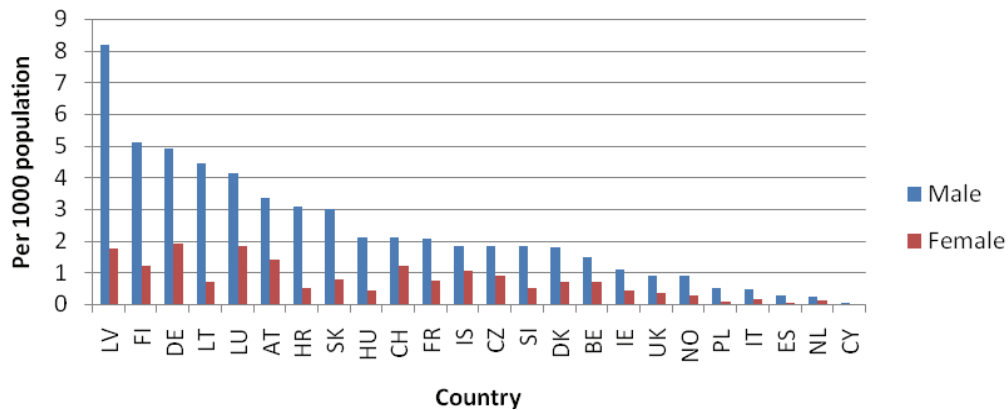
2.5.4.2 Mental distress and well-being

When asked about feeling well or distressed numerous studies (Layete et al., 2010) show that men report higher levels of well-being and much less distress: across the EU, one in five women compared to one in ten men report psychological distress. However, the findings of two other European Reports (European Foundation for the Improvement of Living and Working Conditions, 2006; 2010) revealed that men reported work-related stress more frequently than women. However the difference is small: 23% men and 20% women. Mental stress symptoms, such as overall fatigue and irritability, were also slightly more frequently reported by men. Anxiety and sleeping problems were reported by similar numbers of men and women. Their findings, however, revealed great differences among EU countries, with the new Member States showing markedly higher figures than the old Member States. Large differences were also seen from country to country with the highest level reported in Greece (55%), and in Slovenia, Sweden, and Latvia (all around 38%). Lowest stress levels were reported in the UK, Germany, Ireland, and the Netherlands (all around 15%).

2.5.4.3 Men and addiction as a mental disturbance

Mental and behavioural disorders due to the misuse of alcohol are one of the most disturbing problems of men's mental health and one of the major reasons for men being admitted to hospital with two to four times more men than women (Fig. 2.5.1).

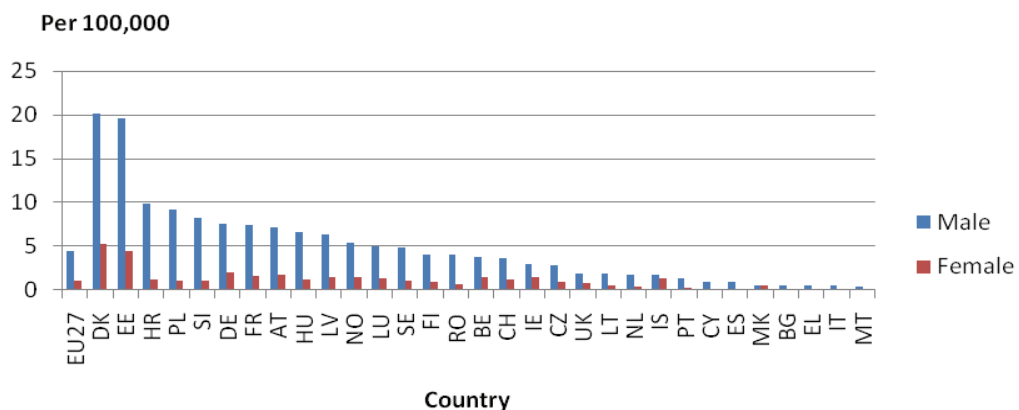
Fig. 2.5.1 Mental and behavioral disorders due to alcohol, age standardized admission rates per 1000 population, by sex and country, latest year¹



Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS, IT (2006). NL, ES (2005)

The deaths of men and women as a result of mental & behavioural disorders due to alcohol show a significant gender difference with three to four times more men dying than women. The relative gender differences for this group of mental health disorders seem to be consistent in all countries, while there are greater differences in total numbers between the countries. The same is true when looking at the age standardised death rates due to these disturbances, however the differences between countries and between the genders are bigger (Fig. 2.5.2).

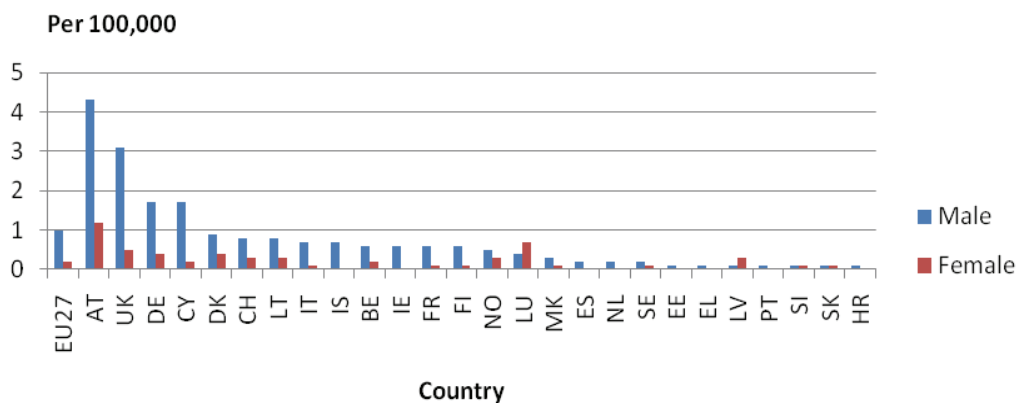
Fig. 2.5.2 Age standardised death rates for Mental & behavioural disorders due to alcohol, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

The same picture emerges when looking at deaths from mental and behavioural disorders due to drug dependence. There are differences across the EU but the gender differences are almost the same across borders with a few remarkable exceptions: in Latvia and Luxembourg there seem to be more women dying of mental health disorders due to drug dependence. Apart from those the occurrence among men are several times more frequent in men (Fig. 2.5.3).

Fig. 2.5.3 Age standardised death rates for Drug dependence, toxicomania, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except CH, CY, EU27, FR, IE, IS, IT, SE, SI, UK (2007). DK, LU, LV, PT (2006). EE, MK (2005). BE, SK (2004)

There are suggestions that it is gender based psychological comprehension which accounts for the striking differences between men and women in the prevalence of addiction. However this understanding might also apply to several of the other mental health problems of men in general and add to our understanding of men's mental distress and mental well being.

2.5.4.4 European men's mental illness

Around 11% of the European population is affected by mental ill health and this equates to around 50 million people in the EU being affected by mental health disorders each year (EU, 2008), with the major causes being Depression (18%), Anxiety disorders (17%), Somatoform disorders (17%), and Alcohol and illicit substance dependence (9%) (Witched & Jacobi, 2005).

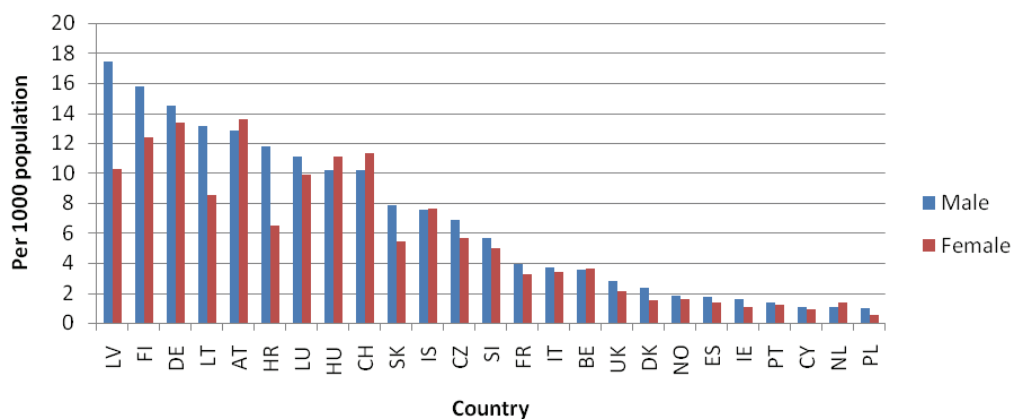
Data to date shows very large gender differences with one third women (33.2%) affected by mental ill health compared to only one fifth men (19.4%) (EC, 2005). The largest gender differences stem from depression/mood

(affective) disorder which affects 12% women and 6% men, anxiety disorders 16% woman and 8% men, and Somatoform disorders affecting 15% women and 7% men respectively.

These figures do not fully illustrate the extent of mental health problems in the male population. Paradoxically although there is a significant correlation between depression and suicide, men commit suicide three times as often as women but are diagnosed with and in treatment for depression only half as often as women. The same picture is seen with self inflicted harm and mental and behavioural disorders due to alcohol. Here men outnumber women by a factor of 2:1. At the same time there are mental disorders, which are still hardly recognized in men, i.e. mood disorders related to parenthood (post natal depression) even though the prevalence of this disorder is around 6-7 % of all new fathers (Madsen & Juhl, 2007).

Hospital Inpatient admissions tend to be higher for men than women (Fig. 2.5.4) although this is not the case for GP consultations. A British study found that GP consultation rates for all psychiatric disorders are 82% higher in women than in men; with the lowest psychiatric consultation rates in 16-24 year old men (Shah, et al., 2001). However men have a 3.8 fold higher consultation rate than women for alcohol dependence and 43 per cent higher for drug dependence.

Fig. 2.5.4 Age standardised hospital admission rates per 1000 population due to Mental & behavioural disorder, by sex and country, latest year¹



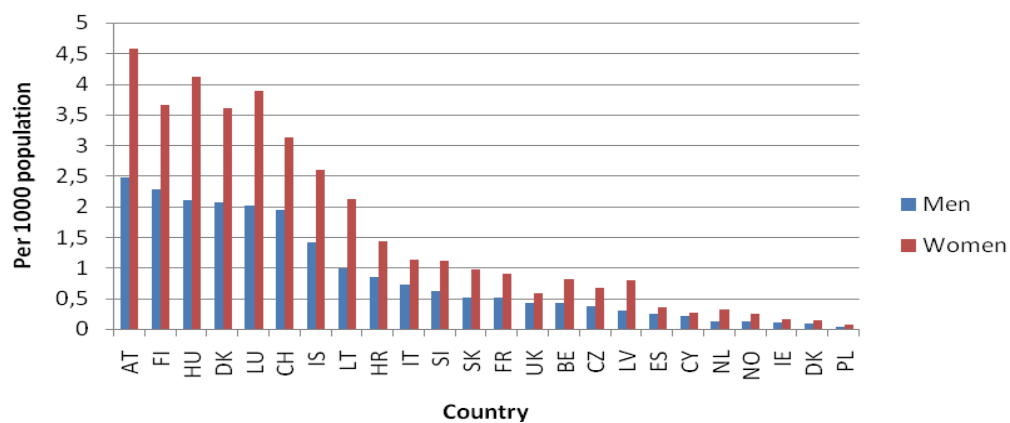
Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS, IT (2006). NL, PT, ES (2005)

There are large differences between the European countries. These results indicate that there might be actual differences between European countries in the prevalence of mental health disorders.

2.5.5 Depression

Depression (mood affective disorder) is one of the most prevalent health problems in many European countries and there are marked gender differences (Fig. 2.5.2), with hospital admission rates and attendance at a general practice showing women outweighing men by a ratio of 2:1 (Fig. 2.5.5).

Fig. 2.5.5 Age standardized hospital admission rates per 1000 population due to Mood affective disorder, by sex and country, latest year¹



Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS, IT (2006). NL, ES (2005)

The reason for these large differences between European countries with regard to admission rates is not explained by current research.

Sex differences in the prevalence of depression have been shown to be much smaller than the figures from hospital admission and general practice attendance. The study (Olsen et al., 2007) showed that particularly among men, depression is under treated. This partly reflects known sex differences in help-seeking behaviour.

The study *Gender differences in depression in 23 European countries. Cross-national variation in the gender gap in depression* (Van de Veld et al., 2010) used information about the frequency and severity of depressive symptoms

from the third wave of the European Social Survey (ESS 2006). Their results, collected in the general population through face to face interviews, showed only minor gender differences (15 percent or a female/male ratio of 1.17:1) although they were still significant. These figures in men's and women's scores are much smaller than the 2:1 ratio generally seen in hospital admission and attendees to general practices and suggests that men are under diagnosed with, and under treated for, depression.

Another reason why men appear less in the data relating to depression is that men may exhibit symptoms not traditionally associated with depression (Branney & White, 2008). Depression is usually defined as a subdued and inward directed reaction with elements of self-deprecation and guilt feelings, whereas Rutz (2001), Winkler et al., (2004), and Piccinelli & Wilkinson (2000) argue that the particular symptoms men exhibit are quite different (see box 2.5.1) and are not usually associated with depression or psychological difficulties:

- Acting out, aggressiveness
- Low impulse control
- Tendency to blame others and to be implacable
- Low stress threshold
- Restlessness
- Risky and socially unacceptable behaviour
- Abuse, especially alcohol.
- General dissatisfaction with oneself and one's own behaviour.

As a result, the disturbance is not identified in men, and men do not, therefore, receive the treatment they need.

In boys' upbringing and in men's roles in the culture and society of masculinity, there is not much room for giving oneself permission and space to be sad, to be ambivalent or, on the whole, to attempt to feel states within oneself (Frosh et al., 2002). Reactions to conflicting or painful conditions are therefore often actions whose objective is to avoid or to quickly get over doubts and pain. Such actions can, in the case of mental health, be extreme behaviour, for example violence, dulling the pain with alcohol or drugs, or suicide (suicide, which is not a cry for help but a way of escaping a problem) and homicide, e.g. jealousy murder. In the study of men's depression by Cochran & Rabinowitz (2000) and Pollack (2005), these deliberations have led to the concept of "masked

depression" in men. The focus here, along with the aspects described in the European research, is on the rational aspects of depression in men. This has led to attention to the following specific reactions and state-patterns which, together with those mentioned previously, appear more often with men:

- Withdrawal from relationships
- Over-involvement with work
- Denial of pain
- Rigid demands for autonomy
- Rejection of getting help.

Neither the psychiatric nor the psychological descriptions of conditions that appear more often in men are, as yet, completely studied in research or in practice. There is still need for a broad recognition of the symptoms of depression that occur more often in men and the development of special scales for enhanced identification of depression in men⁴². Such instruments will undoubtedly also uncover depression in women whose suffering has also not been identified with the help of the traditionally accepted symptoms.

There are quite marked variances in the incidence of depression between countries. While, for example Austria is one of the low level countries in population surveys of depression it is the country with the most hospital admissions for the same condition. On the other Poland, which is among the higher levels, is one of the countries with fewest hospital admissions for this illness.

When it comes to gender differences, for the countries with a low level of depression for the population i.e. Ireland and Sweden, we find that while there seems to be no gender differences among the Irish population there are rather big differences between the genders for the Swedish population. At the higher level of depression within the population we find some of the biggest gender differences in Portugal and Bulgaria while at the same level we find rather small gender differences in Slovakia. Though the reasons could very well be differences in health policies, cultural, religious, economic, or social factors or in consulting behaviour and hospital admission conditions, much more research

⁴² The only existing validated scale is the 'Gotland Male Depression Scale' (Rutz, Rihmer & Dalteg 2002). In USA 'The Masculine Depression Scale' (Magovcevic, M. & Addis M. (2009) is under development

should be done to explain the seemingly anomalous cross country and cross cultural differences.

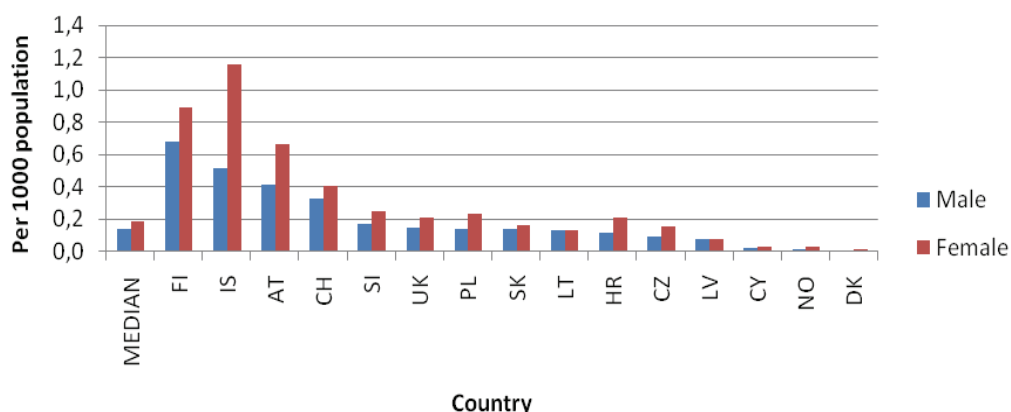
2.5.5.1 Post natal depression

There is a growing scientific consensus that postnatal depression is a disorder related to becoming a parent and is not restricted to any one sex. Several studies (e.g. Matthey et al., 2000; Ballard & Davies, 1996) have measured postnatal depression in men using traditional assessment tools and show that between 7 and 10 percent of all new fathers suffer from this (as compared to 10-14% of women). A recent study on Danish men's postnatal depression was carried out assessing the incidence of traditional symptoms of depression as well as the symptoms which are more common in men (Madsen & Juhl, 2007). According to both scales approximately 7% of new fathers have postnatal depression. A more recent cross national meta-analysis of most of the existing international research on the subject matter (Paulson et al., 2010) indicates that prenatal and postpartum depression might be evident in up to 10% of men, a figure approaching that of women. It is not known though how many of these men are being recognized and given proper help and treatment, but the need is evident as a father's postnatal depression can have an impact on a child's development and the stability of the family unit.

2.5.5.2 Bipolar affective disorder

When looking exclusively at Bipolar affective disorder large variations are found among the European countries for hospital admission rates (Fig. 2.5.6). Bipolar affective disorder is generally regarded as an inherited genetic disorder so it is surprising that there could be a 5 to 10 fold greater occurrence of the affective gene leading to this disease in Austrian, Finnish, and Icelandic populations, than in the populations of Denmark, Cyprus, Norway, and Poland. Alternatively, such differences may be explained by social, economic and cultural reasons, which will only be determined through future research.

Fig. 2.5.6 Age standardized admission rates per 1000 population for Bipolar affective disorder, by sex and country, latest year¹



Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS (2006)

2.5.6 Anxiety disorders

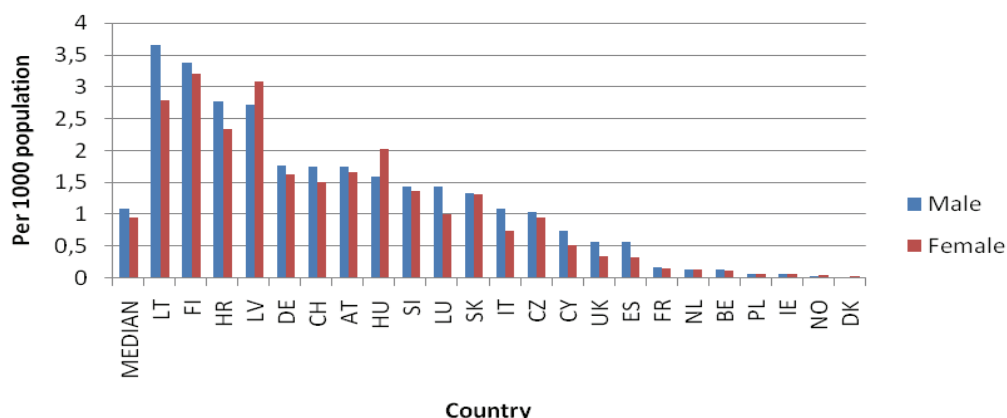
Anxiety disorders are the largest diagnostic group of Neurotic, stress-related and somatoform disorders (ICD-10 F40 & F41). There are marked sex differences in their occurrence: 12 months prevalence in men is around 8% but around 17% for women (Alonso et al., 2004). Although there are differences between anxiety and depression many of the reflections written above about gender differences in depression are also relevant for the data on anxiety.

2.5.7 Schizophrenia / Psychotic disorders

Men and women have similar occurrences of schizophrenia and other psychotic disorders: 12 month prevalence is 2.6% in men and 2.5% in women (Wittchen & Jacobi, 2005).

There are large differences between countries in hospital admissions (Fig. 2.5.7). This is probably caused by differences in treatment policies, where some countries prefer social and district psychiatry than hospital treatment.

Fig. 2.5.7 Age standardised admission rates per 1000 population for Schizophrenia, by sex and country, latest year¹



Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IT (2006). NL, ES (2005)

Average age onset is earlier for men than women. Women also tend to have better functioning, more periods of recovery, fewer long term adverse outcomes, and fewer and shorter stays at hospital (Häfner, 2003). This might be due to social or biological differences as well as the gender differences discussed elsewhere in this chapter.

2.5.8 Personality Disorders

Personality disorders differ from the other diagnoses discussed in this section because they are long-term patterns of emotions, reactions, thoughts and behaviors that cause different kinds of problems in the person's general life, in their family close relationships, and in work.

Symptoms vary extensively from category to category of personality disorder and it is very difficult to say anything precisely about their occurrence. The lifetime prevalence of personality disorders is estimated to be between 5-15%. In general, the prevalence of personality disorders is seen more often in divorced and especially in never-married men, and more often in persons without education and especially in persons who drop out of school. However there are many differences from study to study, from country to country, and from culture to culture about what is perceived as normal behavior and what is not. There has been long time agreement that anti-social personality disorder is more common among men and can play an important role in connection with violence and abuse. The question about gender and personality disorders still remains very inadequately clarified, and it is important to note that in studies

based on clinical samples one often finds marked gender differences but such differences are seldom seen in epidemiological studies.

This kind of mental disorder is one that men in particular do not seek help and therefore do not receive treatment for, which may be why, together with unclear definitions and weak assessment tools, knowledge about prevalence is insubstantial.

2.5.9 Gender identity disorders

Gender Identity Disorder covers a wide range of incident of people wishing to live like the other gender. This embraces trans-sexuality, to be transgendered, transvestitism and other forms of cross-gender incidents. There are no studies that can give us valid figures of prevalence, however it seems that in childhood gender identity disorders are more prevalent in boys in around 4 to one (Möller et al., 2009). It is however clear that such differences might be well be explained by less tolerance in family, culture and society for boys with cross-gender behavior than for girls. In adolescence the ratio is more equal (Cohen-Kettenis & Gooren, 1999).

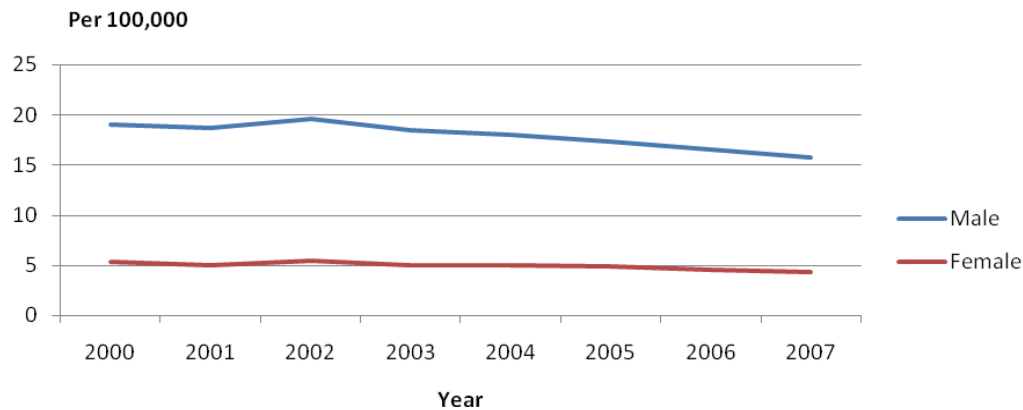
2.5.10 Anorexia Nervosa & Bulimia

Eating disorders such as anorexia and bulimia nervosa are often seen as women's disorders. Studies show that today men suffer from eating disorders too (Pratt et al., 2003) and that there is an increasing occurrence among men as well as women, especially among the younger generation. The prevalence is very uncertain with some studies pointing to an incidence of around 3% for young women and 1% for young men (Hoerr et al., 2002). There are similarities and differences between male and female eating disorders related among other things to gender differences in body images. Eating disorders in some men may be related to gender identity disorders (Vocks et al., 2009).

2.5.9 Suicide and self-inflicted injury

Across the EU27, suicide is a major cause of death accounting for 54,756 deaths in 2007 (41,924 male, 12,822 female), with over 76% of these committed by men. Suicide accounts for 1.75% of total male deaths and 0.54% of total female deaths. The numbers of suicides in EU27 have decreased from 11.8 per 100,000 in 2000 to 9.8 in 2007 - a decrease of around 15%. (Fig. 2.5.8), but in males this is still the principal cause of death in men aged 30-39 years (see Fig 2.1.36).

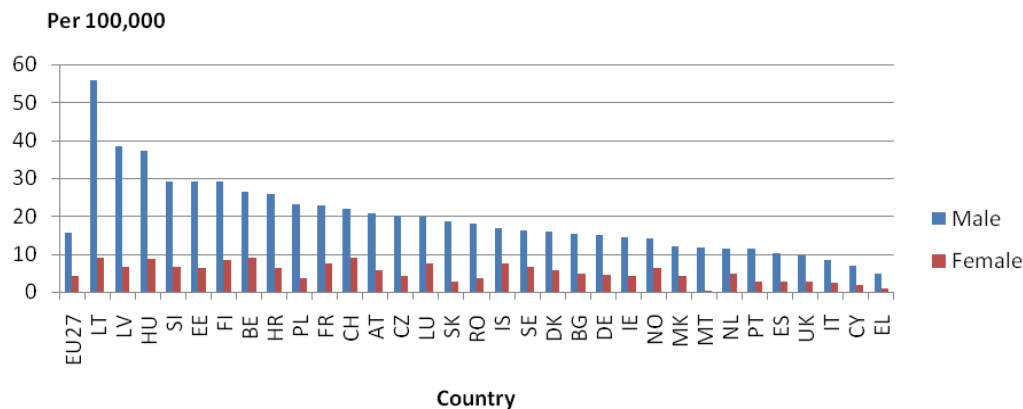
Fig. 2.5.8 Time trends of Suicide mortality, by sex, all ages, EU27, 2000-2007



Source: Eurostat hlth_cd_asdr

Eight Member States are amongst the fifteen countries with the highest male suicide rates in the world. There are large differences seen between the countries with the highest and lowest rates (Fig. 2.5.9).

Fig. 2.5.9 Age standardized mortality rates due to Suicide and intentional self harm, by sex and country, all ages, latest year¹



Source: Eurostat: hlth_cd_asdr. ¹ 2008 BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

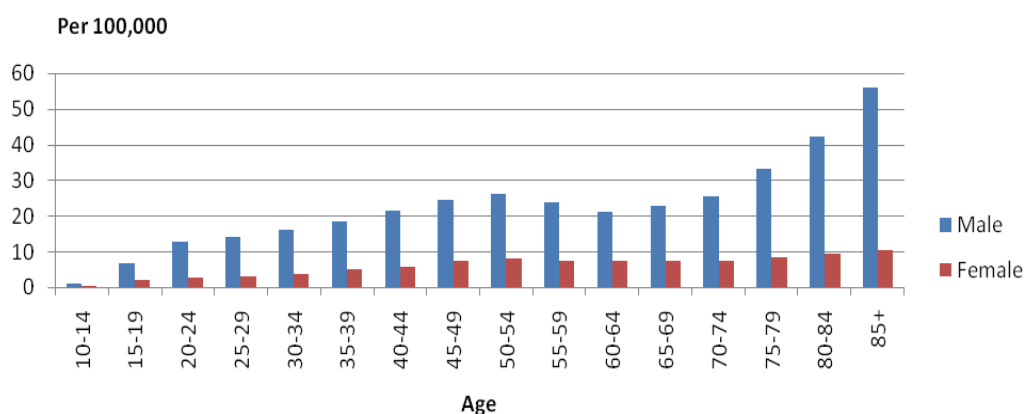
There is a causal link between suicide and clinical depression with around 75 % of people who commit suicide having clinical depression, while 20 % of people with recurring depression commit suicide. The data suggest that many men who commit suicide suffer from undiagnosed depression and that depressed men may have symptoms other than those typically prescribed among women. It is crucial to improve detection of depression in men in order to prevent the

unacceptably high numbers of male suicides. One area for exploration is that the economic status of a country is inversely related to the suicide rate in men but not women (Sher, 2006).

Although there have been efforts made to try and reduce the underestimation of deaths by suicide due to the lack of standardisation of the registration of the “manner of death”, there are still differences in the occurrence of suicide among the European countries, which may be attributable to shortcomings still to overcome^{43 44}. Examples of which include countries where death certificates are used for insurance purposes and perhaps the most important reason for under recording might be where cultural and religious beliefs mean that suicide is seen as taboo.

At all ages, men commit suicide at higher rates than women. Among men, a regular increase of risk is seen after the age of 15, with suicide rates varying considerably across the EU27 (Fig. 2.5.10 & 2.5.11).

Fig. 2.5.10 Age specific mortality rates due to Suicide and intentional self harm, by sex, EU27, 2007

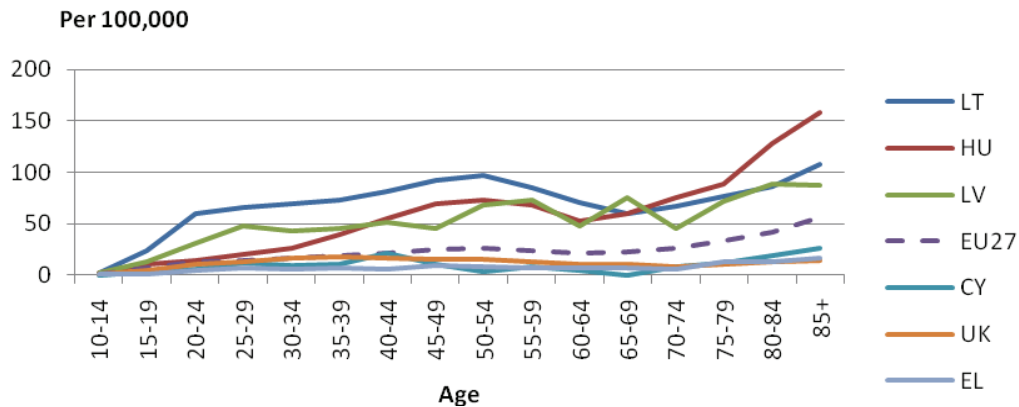


Source: Eurostat hlth_cd_acdr

⁴³ <http://eurpub.oxfordjournals.org/content/16/4/445.full> last accessed 09/12/10

⁴⁴ http://ec.europa.eu/health/mental_health/eu_compass/reports_studies/anamort.pdf last accessed 09/12/10

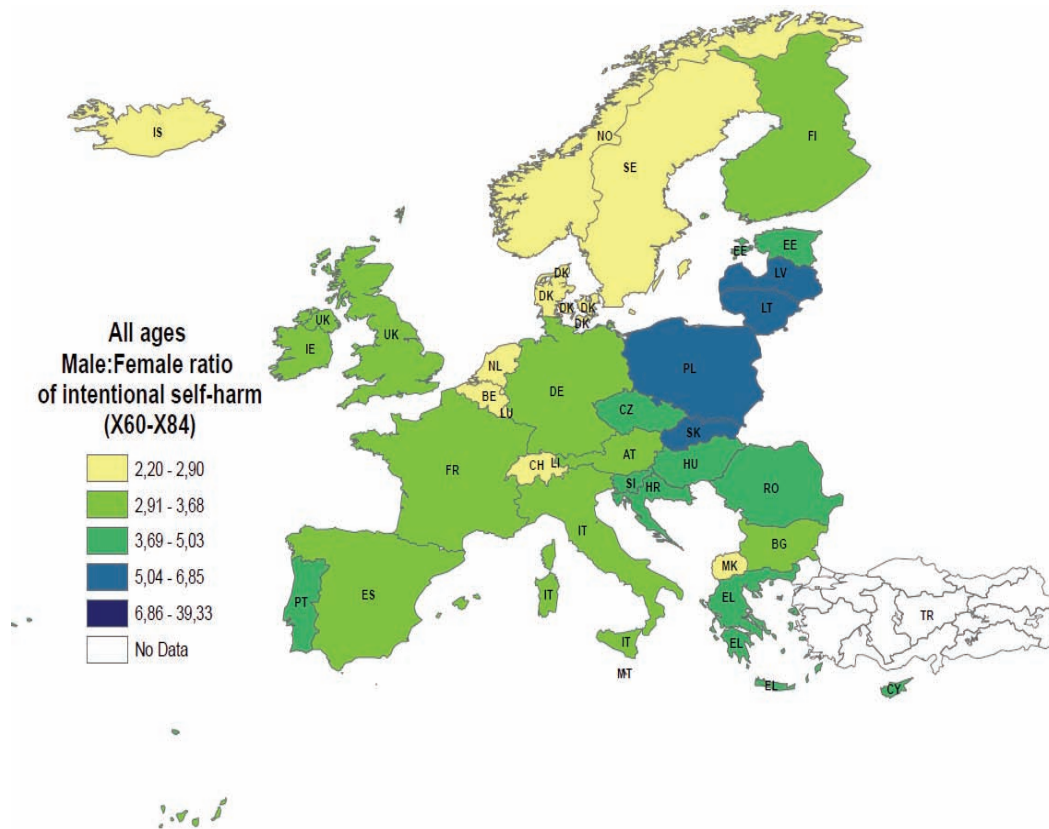
Fig. 2.5.11 Age specific mortality rates due to Suicide and intentional self harm, male, for selected countries, latest year



Source: Eurostat hlth_cd_acdr

Compared to 15-24 years-old, the risk of suicide death among the elderly (aged 65+ years) is three times higher. The number of suicides rises significantly with age among men, but not among women. Men aged 70+ years die by suicide up to five times more often than women in the same age group. This is thought to be due to a range of factors including men's retirement, being single, widowed or ill-health (Djernes, 2006). The social and economic impact on men is thus a significant factor in age differences in suicide. These sex differences also suggest that a large number of older men have untreated depression (Jensen et al., 2010).

Map 2.5.1 Male:female ratio of intentional self harm, all ages



Source:

Some of the reasons for the higher rate of suicide in men lie in the methods that men and women use to take their own lives: hanging is the most common male method while overdose is the most common female method. There are also sex differences in fulfilled suicides and attempted suicides: women have many more attempted suicides than men. An attempted suicide builds upon a belief that there is still hope that things might improve with involvement from others ('a cry for help'). On the other hand, it seems that male suicides are grounded in the conviction that nobody can help and that there are no alternatives other than to die. This is also seen as consistent with how men typically cope with emotional pain and anguish, namely: withdrawal from close relationships rather than seeking help and comfort; quickly getting away from pain, emotional conflicts and feelings of being weak; and tendencies to act out and become angry. Male suicides might often be seen as grounded in one or more of these mental responses.

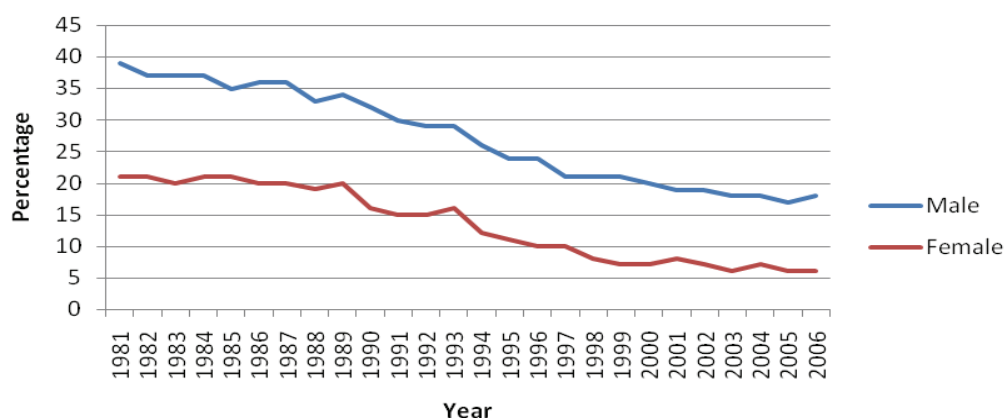
Suicide is generally a complication of mental suffering. Combined with men's psychosocial problems and problems related with age increase suicide risk. Prevention of suicide in men by reducing the number of men's suicides requires

better detection of depression in men in combination with modification of different social and economic conditions, such as reduction of poverty, unemployment, and improvement in access to health care. Both mental health treatment and social changes are needed to reduce suicide rates in men.

2.5.9.1 The Denmark Effect

In an attempt to understand these dichotomies it is interesting to note that Denmark has succeeded in bringing its suicide rates down by 50 % over a period of 20 years. However the difference between men and women is untouched (Fig. 2.5.12).

Fig. 2.5.12 Time trends of Suicide mortality per 100,000 in Denmark, by sex, 1981-2006



Source: Danish National Board of Health

While there have been some very successful legislative and health campaigns in fighting suicide there has not been any focus on gender despite gender being specifically significant.

2.5.10 References

- Alonso J, Angermeyer MC, Bernert S et al., (2004) Use of mental health services in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatrica Scandinavica* 109 (suppl. 420): 47 –54
- Ballard C, Davies R (1996) Postnatal depression in fathers. *Int Rev Psychiatry* 8: 65-71
- Branney P, White AK (2008) Big boys don't cry: depression and men. *Advances in Psychiatric Treatment* 14: 256–262

- Cochran S, Rabinowitz F (2000) Men and Depression. New York, Academic Press
- Cohen-Kettenis P, Gooren L (1999) Transsexualism: A Review of Etiology, Diagnosis and Treatment *Journal of Psychosomatic Research* 46(4): 315–333.
- Danish National Board of Health (2010)
<http://www.sst.dk/Indberetning%20og%20statistik/Sundhedsdata/Sygesikring/DSN2.aspx> last accessed 11/11/10
- Djernes JK (2006) Prevalence and predictors of depression in populations of elderly: a review. *Acta Psychiatr Scand* 113:372-387
- Erlangsen A, Jeune B, Bille-Brahe U et al., (2004), Loss of partner and suicide risks among the oldest old: a population-based register study, *Age and Ageing* 33: 378-383
- ESS (2006) European Social Survey Round 3. Measuring social and political change in Europe. City University, London, Centre for Comparative Social Surveys
- European Commission, Directorate General for Health and Consumer Protection (2004) *The State Of Mental Health In The European Union*. Luxembourg, Office for Official Publications of the European Communities
- European Commission, Directorate General for Health and Consumer Protection (2005) *Green Paper: Improving the mental health of the population: Towards a strategy on mental health for the European Union*. Brussels, Directorate General for Health and Consumer Protection
- European Foundation for the Improvement of Living and Working Conditions (2006) *Fourth European Working Conditions Survey*. Luxembourg, Office for Official Publications of the European Communities
<http://www.eurofound.europa.eu/pubdocs/2006/27/en/1/ef0627en.pdf> Last accessed 12/11/10
- European Foundation for the Improvement of Living and Working Conditions (2010) *Second European Quality of Life Survey, Living conditions, social exclusion and mental well-being*. Luxembourg, Office for Official Publications of the European Communities
- EU (2008) *European Pact for Mental Health and Well-being*. EU high-level conference, Brussels, 13 June 2008. Slovenian Presidency of the EU
- Fearon P, Mirkbride JB, Morgan C et al., (2006) Incidence of schizophrenia and other psychoses in ethnic minority groups: results from the MRC AESOP study. *Psychological Medicine* 36: 1541-1550
- Frosh S, Phoenix A, Pattman R (2002) *Young Masculinities: Understanding Boys In Contemporary Society*. Basingstoke, Palgrave Macmillan

- Häfner H (2003) Gender differences in schizophrenia. *Psychoneuroendocrinology* 28: 17–54
- Helgason ÁR, Dickman PW, Adolfsson J et al., (2001) Emotional isolation: Prevalence and the effect on well-being among 50-80 year old prostate cancer patients. *Scandinavian Journal of Urology and Nephrology* 35:97-101
- Hoerr S, Bokram R, Lugo, B et al., (2002) Risk for Disordered Eating Relates to both Gender and Ethnicity for College Students. *Journal of the American College of Nutrition* 21(4):307-314
- Jensen H, Munk K, Madsen SAa (2010) Gendering late-life depression? The coping process in a group of elderly men. *Nordic Psychology* 62(2):102
- Layete R, Maitre B, Whelan C (2010) Second European Quality of Life Survey. Living conditions, social exclusion and mental well-being. Dublin, The European Foundation for the Improvement of Living and Working Conditions
- Lewis N (2009) Mental health in sexual minorities: Recent indicators, trends, and their relationships to place in North America and Europe. *Health & Place* 15(4):1029-1045
- Madsen SAa, Madsen KS (Eds.) (2002) Tema: Hvem voldtager hvem? – om voldtægt og herkomst. In: Madsen SAa, Sidenius K, Madsen KS (Eds) Rapport fra Center for Voldtægtsofre, 2001. Copenhagen, Centre for Victims of Rape, Rigshospitalet
- Madsen SAa, Juhl T (2007) Paternal depression in the postnatal period assessed with traditional and male depression scales. *Journal Men's Health & Gender* 4(1):26-31
- Madsen SAa (2009) Men's Mental Health: Fatherhood and Psychotherapy. *The Journal of Men's Studies* 17(1):15-30
- Madsen SAa (2010a) Between autonomy and attachment. Psychotherapy for men with postnatal depression p. 315-340. In Blazina C, Miller D (eds). *An International Psychology of Men. Theoretical Advances, Case Studies, and Clinical Innovations* New York, Routledge
- Madsen SAa (2010b) Treatment of Anger in New Fathers and Fathers to Be. Article from Daphne III –program project: Violence Intervention in Specialist Healthcare (VISH), granted by the European Commission
- McDaid D (ed) (2008) Mental Health in Workplace Settings. Consensus paper. Luxembourg, European Communities
- Matthey S, Barnett B, Ungerer et al., (2000) Paternal and maternal depressed mood during the transition to parenthood. *Journal of Affective Disorders* 60: 75-85

- Möller B, Schreier H, Li A et al., (2009) Gender Identity Disorder in Children and Adolescents. *Current Problems in Pediatric and Adolescent Health Care* 39(5): 117-143
- Möller-Leimkühler A (2002) Barriers to help seeking by men: a review of sociocultural and clinical literature with particular reference to depression. *Journal of Affective Disorders* 7(1):1-9
- Nordentoft M (2006) Hvad tænkte de inden selvmordet. Præsentation på Verdens Selvmordsforebyggelsesdag 2006. Herlev Hospital. (What they thought before the suicide. Presentation on World Suicide Prevention day 2006 at Herlev Hospital, Denmark)
- Olsen L, Munk-Jørgensen P, Bech P (2007) The prevalence of depression in Denmark, *Ugeskr Laeger* 169(16):1425-1426
- OSH (2009) OSH in figures: stress at work — facts and figures. Luxembourg, European Communities
- Paulson J, Sharnail D, Bazemore M (2010) Prenatal and Postpartum Depression in Fathers and Its Association With Maternal Depression. A Meta-analysis. *JAMA*. 303(19):1961-1969
- Piccinelli M, Wilkinson G (2000) Gender differences in depression. Critical review. *Br J Psychiatry* 111: 486-492
- Pratt H, Phillips E, Greydanus E et al., (2003) Eating Disorders in the Adolescent Population: Future Directions. *Journal of Adolescent Research* 18(3):297-317
- Pollack W (2005) "Masked Men": New Psychoanalytically Oriented Treatment Models for Adult and Young Adult Men. In Good G, Brooks G (Eds.) *The New Handbook of Psychotherapy and Counseling with Men*. San Francisco, Wiley
- Ridge D, Emslie C, White AK (2010) Understanding how men experience, express and cope with mental distress: Where next? *Sociology of Health & Illness* 33(1): 145-159 doi: 10.1111/j.1467-9566.2010.01266.x
- Rutz W (2001) Preventing suicide and premature death by education and treatment. *Journal of Affective Disorders* 62(1-2):123–129
- Shah R, McNiece R, Majeed A (2001) Socio-demographic differences in general practice consultation rates for psychiatric disorders among patients aged 16–64. *Health Statistics Quarterly* Autumn 5-10
- Sher L (2006) Per capita income is related to suicide rates in men but not in women. *Journal of Men's Health* 3(1):39–42
- Van de Velde S, Bracke P, Levecque, K (2010) Gender differences in depression in 23 European countries. Cross-national variation in the gender gap in depression. *Soc. Sci Med.* 71(2):305-13

- Vocks S, Stahn C, Loenser K et al., (2009) Eating and body image disturbances in male-to-female and female-to-male transsexuals. *Archives of Sexual Behavior* 38(3):364-377.
- Winkler D, Pjrek E, Heiden A (2004) Gender differences in the psychopathology of depressed inpatients. *European Archives of Psychiatry and Clinical Neuroscience* 254(4):209-214
- Wittchen H-U, Jacobi F (2005) size and burden of mental disorders in Europe – a critical review and appraisal of 27 studies. *European Neuropsychopharmacology* 15:357-376

2.6 Problems of the male reproductive system

2.6.1 Main points

- There is a lack of patient focused research into men's experiences of reproductive health problems.
- There appears to be a gap between men's needs for treatment or advice in relation to sexual health and the capacity of health services to meet these needs. This gap is a result of men's under-use of health services and an apparent reluctance of many health care professionals to address men's sexual health.
- Erectile dysfunction is a common condition that can cause great distress to sufferers, but it is also an important early warning of cardio-vascular disease and other health problems.
- The Lower Urinary Tract Symptoms (LUTS) cause significant problems for a large proportion of the older generation of men across Europe.
- Late onset hypogonadism has been found to have a biological basis for about 2% of men.

2.6.2 Summary

The problems encountered by men with regard to the male reproductive system are often wrongly associated with the ageing process. Early diagnosis of the causes of erectile dysfunction can uncover serious health concerns as well as allowing restoration of a normal sex life. The lower urinary tract symptoms (LUTS) are associated with a number of conditions, such as Benign Prostatic Hyperplasia and Prostatitis, which cause significant discomfort for the affected individual. Though these are significant illnesses for the older man there remain few treatment options available. Over 40% of cases of infertility are due to male problems.

2.6.3 Introduction

Reproductive health has been defined by the WHO⁴⁵ as a state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. When this definition is applied to men, it can be seen that problems in the way the system works (i.e. at the anatomical / physiological level), the way it is used (i.e. relational), and the associated psychological/emotional issues make this a serious men's health concern. As

⁴⁵ http://www.who.int/topics/reproductive_health/en/

noted earlier [section 1.4], most men place a high value on the role of sex in their lives (Laumann et al., 2006; Mulhall et al., 2008; Rissel et al., 2003), and masculinity is commonly linked to sexual prowess (Gannon et al., 2004).

Contemporary definitions of sexual health are quite broad (World Association for Sexual Health, 2007). Although it is important to acknowledge the importance of sexual pleasure and sexual freedom, it must be noted that there is good reason to be concerned about sexual diseases (see Section 2.7 on STIs) and dysfunctions.

Although there is now a growing body of research into sexual problems, it is often difficult to make comparisons between studies carried out in different locations, due to differences in methodology including the exact wording of questions, the age range of the sample, and the methods of sampling and data collection that are used. Added to this lack of clarity is a certain amount of disagreement about whether we should refer to sexual problems, sexual difficulties, or sexual dysfunctions.

In a study exploring sexual difficulties in Austria, Belgium, France, Germany, Italy, Spain, Sweden and the UK (Nicolosi et al., 2006), 27% of men reported experiencing at least one sexual difficulty lasting at least 2 months in the last year. This was significantly lower than the 32% prevalence among women. There was significant variation between men in different countries, ranging from 13% in Austria to 32% in Spain and the UK. Early ejaculation was the most common difficulty, reported by 11% overall (ranging from 3% in Austria to 20% in Spain). There was less clear variation in less frequently reported difficulties: erectile problems (8% overall), lack of interest in sex (6%), inability to orgasm (5%), and not finding sex pleasurable (4%).

Many people who experienced sexual problems did not take any action such as consulting a doctor or talking to their sexual partner, and men were less likely than women to have taken any action: 19% of men in Northern Europe and 23% of men in Southern Europe sought help from a health professional, compared to 22% of women in Northern Europe and 27% of women in Southern Europe (Moreira et al., 2005).

Approximately half of the men (45% in Northern Europe, 49% in Southern Europe) thought that doctors should routinely ask about sexual health, and men

were more likely than women to express this belief. The finding that only 7% of men reported that their doctor had asked about their sexual health in last 3 years indicates a clearly unmet need (ibid).

Particular attention has been given to erectile difficulties because of the symbolic importance that sexual potency has for many men's sense of masculinity. However, one large-scale study found that experiencing ED or seeking help for ED if diagnosed is not necessarily related to beliefs about masculinity (Sand et al., 2008).

2.6.4 Erectile dysfunction

Erectile dysfunction (ED) describes 'an inability of the male to achieve an erect penis as part of the overall multifaceted process of male sexual function.' (National Institute of Health, 1992). The impact of ED on sufferers can be severe. Sand et al., (2008) found that men with ED reported lower levels of satisfaction with a range of aspects of quality of life. The effects of ED can include depressive symptoms such as loss of self esteem and feelings of inadequacy leading to negative effects on a man's interaction with others, particularly partners, potentially causing relationship problems (Fisher et al., 2005). ED often acts as an indicator of actual or impending serious health problems including CVD and diabetes. The earlier a man presents for treatment, and the more rigorous the diagnostic process, the sooner both the emotional and physical factors associated with this condition can be managed.

There are a number of factors associated with both the diagnosis and treatment of ED that have an effect beyond the psycho-sexual. The recognition that erectile dysfunction (ED) acts as an outward sign for often previously unrecognised serious health issues (including cardiovascular disease) as well as a major concern for the sufferer makes this an important health condition for men.

2.6.4.1 Causes and implications of ED

Emotional wellbeing and the ability to be aroused have to be coupled with an intact nervous and cardiovascular system to achieve and maintain an erection. Evidence indicates that most ED is multifactorial in origin, with organic factors and psychogenic factors likely to contribute to the development of the condition (Eardley et al., 2007, Ralph et al., 2000). However organic factors are the most common reasons for the development of ED. Around 80% of cases are believed

to have a physical grounding, with diabetes, neurological problems, urological surgical and many prescription and recreational drugs implicated (Hall, 2008) The diseases most frequently associated with ED are prostate cancer, diabetes mellitus and myocardial infarction. A causal link to the metabolic syndrome is now felt to be assured (Müller, 2006). It has been estimated that 50% to 70% of ED can be attributed to endothelial changes seen in vascular disease. Because the penile arteries are smaller than the coronary arteries, the development of vascular problems is often picked up first through ED, making ED a very effective early warning system for coronary artery disease (Müller, 2006, Jackson & Padley, 2008).

Currently there are no international databases recording the incidence or prevalence of ED, but there have been a number of prevalence studies, which suggest that this is a common problem and that with an ageing population the numbers affected will increase.

Assessing a number of studies Solomon et al., (2003) found that:

- 15% of men with hypertension had complete ED (increasing to 20% in men who smoked)
- 39% of men with cardiac disease had complete ED (increasing to 56% in men who smoked)
- over 60% of men with ED had hypercholesterolaemia
- Between 39-64% of men with heart disease, myocardial infarction or vascular disease also had ED.

Population based data assessing erectile dysfunction (ED) in Swedish men (Helgarson et al., 1996a) using questions validated with objective measures of night time erections using *RigiScan* (ibid), showed that 97% of men under 60 years could achieve erection sufficient for penetration and intercourse. This proportion was 82% in the age group 60-69 years and 58% in the 70-80 years old age group. Side effects from treatment of prostate cancer were found to be a major contributor to ED in the studied population (Helgarson, 1997b).

Although the importance of intact sexual function decreases with increasing age it is found to have a large impact on the quality of life for a large proportion of men in all age groups (Helgarson et al., 1996a).

Treatment for prostate cancer was found to be associated with ED and that was true for all forms of treatment and a substantial proportion of the men stated

that they were willing to abstain from curative treatment for prostate cancer to avoid ED (Helgarson, 1996b).

2.6.4.2 Prevalence of Erectile Dysfunction

In the absence of any national databases requiring the reporting of erectile dysfunction estimates of the prevalence of ED have come from individual surveys. Although there is little consensus over the actual numbers of men with ED, it has been shown to be closely associated with age and with incidence rates increasing within older populations. The most severe forms of erectile dysfunction are reported by 5% to 16% of the male population. This equates to between 14 million and 46 million men across the 34 countries covered by this report. Less severe forms are estimated to occur in 60% of men, giving a total affected population of some 173 million men.

An early indication of the prevalence of ED was the Massachusetts male ageing study (MMAS), of 1709 healthy men, which identified that 52% of men had ED to some degree, with 5% at age 40 and 15% at age 70 having complete loss of erectile function (Levy, 1994). Following this study there was a number of studies exploring the incidence and prevalence of ED across Europe. Braun et al., (2000) found that men from Cologne in Germany showed a 2.3% incidence rate in those aged 30-39, 9.5% aged 40-49, 15.7% aged 50-59, 34.4% aged 60-69 and 53.4% aged 70-79. A four country study (Brazil, Italy, Japan, and Malaysia) found that the age-adjusted prevalence of moderate or complete ED was 34% in Japan, 22% in Malaysia, 17% in Italy, and 15% in Brazil, with those aged 65-70 having an incidence of 54% (Nicolosi et al., 2003).

The multinational Men's Attitudes to Life Events and Sexuality (MALES) study involved interviewing 27,839 men aged 20-75 years from eight countries (United States, United Kingdom, Germany, France, Italy, Spain, Mexico, and Brazil), and identified an overall prevalence of 16% (Rosen, 2004). A Spanish study (Martin-Morales et al., 2001) found a prevalence of 12.1% within their study cohort. In Finland, Koskimäki (2000) found 14% of their sample of men aged 50 to 70 years had moderate ED and 12% had complete ED, with the numbers increasing with age. In a study based in Vienna (Ponholzer et al., 2004) the prevalence for severe ED was 9.6% in those aged 71–80 years. In France, Guiliano et al., (2002) found one man in three (31.6%) of the 1004 men they sampled for a telephone interview had some degree of ED and a study, based in Belgium found only 39% of their sample of men aged 40-70

years had no symptoms of ED (Mak et al., 2002). In a more recent study the prevalence of severe-moderate ED was 8% and moderate to mild ED was 29% in a random sample of 1918 returned questionnaires in Sweden (Frånlund et al., 2010).

Determining the actual numbers of ED sufferers is difficult considering that some men are reluctant to discuss sexual health problems. Assuming these are underestimates, a worrying issue is the number of men who fail to seek medical assistance or who turn to the internet for medication. This both removes the possibility of diagnosis of the underlying problem, and also exposes men to the risk of potentially dangerous counterfeit drugs.

Until the professional and lay population recognise the importance of determining the proper diagnosis of the underlying causes of ED, its potential to act as a warning system for cardio-vascular and other serious health problems will continue to be overlooked. ED also leaves men unable to engage in satisfactory sexual activity, with all that that entails for themselves and their partners.

2.6.5 Lower Urinary Tract Symptoms (LUTS)

The male urinary system is complex, comprising the bladder, the bladder neck/prostate and urethra, which extends some 20 cm from the bladder to the penis. In the past, there was a tendency to see the prostate as the root of all the urological problems men experience. It is now recognised that this is not the case, so it is preferable to use the term lower urinary tract symptoms (LUTS). These comprise storage symptoms (i.e., daytime urinary frequency, nocturia, urgency, urinary incontinence), voiding symptoms (i.e., slow stream, splitting or spraying, intermittency, hesitancy, straining, terminal dribble), and post micturition symptoms (i.e., sensation of incomplete emptying, post-micturition dribble (NCGC, 2010 p1).

Though it is recognised that many women have problems with urinary incontinence as a result of childbirth, it is not so widely acknowledged that men also have significant problems with urinary flow and incontinence: 90% of men aged 50-80 years are affected (NCGC, 2010). Despite the prevalence and severity of some of the symptoms of LUTS in men, they are often un-reported by older men (Wilt, 2008).

It is beyond the scope of this report to cover all the causes associated with LUTS, and the focus will be on two main problems: benign prostatic enlargement and prostatitis, but this is not to diminish the other conditions or the need to have active research programmes in place to determine best preventative and management programmes.

2.6.5.1 Benign prostatic hyperplasia (BPH or BPE⁴⁶)

The Prostate gland is situated just below the base of the bladder surrounding the urethra and is normally about the size of a walnut. It is an important part of the male reproductive system as it creates a number of enzymes that play a part in activating sperm prior to ejaculation and also secretes about a third of the fluid that makes up semen. With advancing age there is a tendency for the prostate to enlarge, however it is not the enlargement itself that causes men to seek help, but the symptoms that arise as a result of it. With enlargement of the prostate increasing pressure on the urethra affects the flow of urine and increased activity of the main muscle (detrusor) surrounding the bladder as it has to work harder to expel the urine and manage a distended bladder due to incomplete voiding (referred to as bladder outflow obstruction (BOO)).

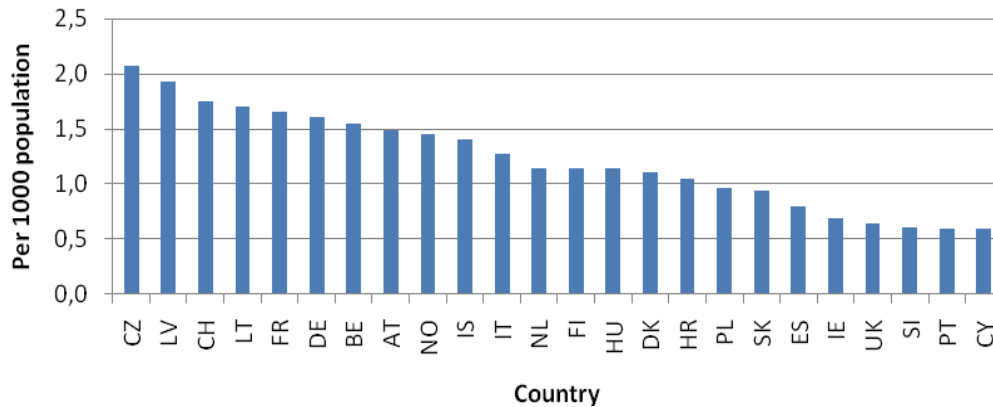
A large scale cohort study in the Netherlands comprising some 80,774 men identified an overall incidence rate of LUTS/BPH at 15 per 1000 man-years, with a linear increase with age from 3 cases per 1000 man-years at the age of 45–49 years to a maximum of 38 cases per 1000 man-years at the age of 75–79 years. The overall prevalence of LUTS/BPH was 10% (ranging from 3% among men aged 45–49 years to 24% for men aged 80 years (Verhamme, 2002).

A study of the impact of prostate problems on work and society was conducted in 2002 in seven EU countries (Denmark, Hungary, Ireland, Netherlands, Slovenia, Spain, United Kingdom (O'Dowd et al., 2002). The report noted that "Although there is much research that looks at the clinical aspects of non-malignant prostatic disease, and in particular the effectiveness of different treatments, there is very little patient-focused, qualitative research that looks at the morbidity of non-malignant prostatic disease and the impact of the disease on men's lives and the lives of their family members". Though there has been some improvement with this regard there is still a paucity of work in this area.

⁴⁶ Also known as Benign prostatic enlargement (BPE)

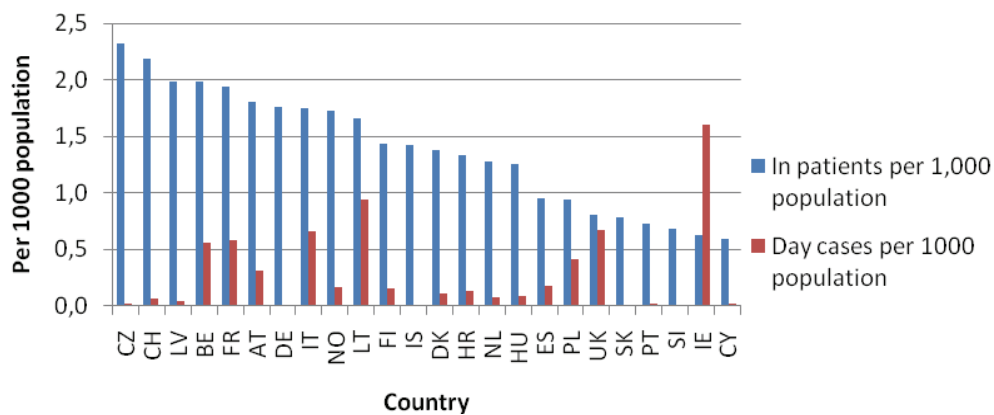
Differences are seen across countries with regard to age standardised rates of admission to hospital (Fig. 2.6.1) and treatment choices (in-patient vs outpatient management) (Fig. 2.6.2). With the male population increasing at its current rate the need to find an effective way of managing this problem will become ever more pressing.

Fig. 2.6.1 Age-standardized admission rate for hyperplasia of Prostate per 1,000 population, by country, latest year¹



Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS, IT (2006). NL, PT, ES (2005)

Fig. 2.6.2 Day cases and inpatients per 1,000 population, Prostatic hyperplasia, by country, latest year¹



Source: HMDB ¹ 2007 except LV, LT (2008). HR, DK, IS, IT (2006). NL, PT, ES (2005)

2.6.5.2 Prostatitis

Prostatitis is one of the most common and debilitating urological conditions in men yet it receives very little recognition leaving many men living with a high degree of chronic pain and disrupted lives (Nickel, 2009). There are three different forms of the disease:

- Category 1: acute bacterial prostatitis
- Category 2: chronic bacterial prostatitis
- Category 3: chronic pelvic pain syndrome (CPPS)

The first two categories are less common than the third, but all three are associated with often intense debilitating pain (genitourinary or pelvic or both), variable voiding, and sexual dysfunction. The disease has been associated with cigarette smoking, a high caloric diet with low fruit and vegetable consumption, constipation, meteorism (gaseous distension of the stomach or intestine), slow digestion, a sexual relationship with more than 1 partner, decreased sexual desire, erectile dysfunction and premature ejaculation (Bartolettia et al., 2007). Chronic pelvic pain symptoms are the most common presentation, especially perineal, lower abdominal, testicular, penile as well as ejaculatory pain (Sönmez, 2010). It has been associated with a significant negative impact on quality of life (Schaeffer et al., 2002, Walz et al., 2007).

A Finnish study (Mehik & Hellström, 2002) found that in one district (Oulu) the overall lifetime prevalence of prostatitis was 14%, with an age increasing risk of having the disease. In a larger study conducted in Italy (Bartolettia et al., 2007) the prevalence of the syndrome was 13.8%, while the estimated incidence was 4.5%.

The causes of prostatitis are often bacterial in the first instance, but it can occur or re-occur without an associated infection, sometimes through trauma (both acute and accumulative i.e. bicycle riding). For many men the causes are not clear. There is a current debate as to the effect of *Chlamydia trachomatis* infection in the development of prostatitis in younger men and the subsequent decrease in semen quality and reduced fertility (Mazzoli, 2010).

Treatment of prostatitis usually involves lengthy antibiotic therapy due to the difficulty of getting penetration into the prostate, but in many cases there is no current adequate therapy and the focus is on symptom control.

Fig. 2.6.3 Age-standardized admission rate for Inflammatory disease of the prostate, per 1,000 population, by country, latest year¹



Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS (2006)

2.6.6 Late onset hypogonadism

Testosterone is the principal male hormone and about 95% is produced in the testicles and the rest in the adrenal glands. Its function is widespread throughout the male body and is associated with the development of both primary and secondary male anatomical and physiological development including the male sexual reproductive system, the male physique, body hair distribution, voice changes at puberty, and the development and maintenance of the male libido. There is also an association between levels of testosterone and male behaviour.

Late-onset hypogonadism has been defined as "a clinical and biochemical syndrome associated with advancing age and characterised by typical symptoms and a deficiency in serum testosterone levels. It may significantly reduce quality of life and adversely affects the function of multiple organ systems." (Nieschlag, 2005).

A recent study involving eight European countries (Belgium, Estonia, Finland, Hungary, Italy, Poland, Spain, Sweden and the UK) interviewed 3,369 men aged 40 to 79 and did find evidence that there were a set of definite symptoms associated with late-onset hypogonadism but that these were relatively rare and affected only about 2% of the ageing male population (Wu et al., 2010). They tested nine rigorously selected symptoms, and found differences in testosterone levels between symptomatic and non-symptomatic men were marginal. It found weak overall associations between symptoms and

testosterone levels; however three sexual symptoms - poor morning erection, low levels of sexual desire and erectile dysfunction were linked to low testosterone levels. Other non-sexual symptoms were identified: an inability to engage in vigorous activity, inability to walk more than 1 km, and an inability to bend, kneel or stoop; and three psychological symptoms were identified: loss of energy, sadness, and fatigue. However, these non-sexual symptoms were only weakly related to low testosterone.

There has been a marked increase in the use of testosterone replacement therapy in the USA, but this pattern has not been seen elsewhere. There is now concern over the use of such treatment, with anxiety that it does not improve many symptoms of late-onset hypogonadism and may have detrimental effects on men with existing prostate disease, raised haematocrit, or those at risk of sleep apnoea due to obesity (DTB, 2010).

2.5.7 Infertility

The plans to tackle the demographic challenges that are emerging across Europe as a result of decreasing birth rate and increasing number of older adults are in part dependent on strong fertility. However, according to the European Society of Human Reproduction and Embryology (ESHRE) infertility affects one in six couples around Europe and the male partner is responsible for 40% of these problems with both the quality and quantity of sperm appearing to be in decline.

Infertility has been defined as by the WHO as the inability to conceive after two year of intercourse without the use of contraception⁴⁷. According to the European Society of Human Reproduction and Embryology, infertility affects one in six couples in Europe and it has been estimated that male factor infertility plays a role in up to 50% of couples unable to conceive (Dall'Era et al., 2009).

Sperm DNA can be damaged by lifestyle factors including smoking, alcohol, drugs and obesity. Other factors believed to increase sperm DNA fragmentation are being over 50 years old, exposure to air pollution or environmental toxins, prolonged sexual abstinence or exposure of the testicles to greater warmth than normal, as seen in obese men due to excess fat in the genital area (Hilton et al., 2006).

⁴⁷ <http://www.who.int/topics/infertility/en/>

Other causes of infertility in men include:

- sexual behaviour that is counterproductive to conception.
- systemic illnesses (diabetes, cancer, history of sexually transmitted diseases) or possible genetic causes.
- pelvic trauma, prior hernia repair, and bladder, prostate, or scrotal surgery
- childhood history of cryptorchidism, orchidopexy, torsion, and timing of puberty,
- medication
- occupational exposures
- incomplete virilization
- disorders of the penis and anatomical defects such as vasal agenesis, clinically significant varicocele, or problems with the epididymis
- other causes include infection, obstruction, or a neurological disorder.

(Dall'Era et al., 2009)

2.6.8 Congenital problems of the male reproductive system

There are a number of congenital problems associated with the male reproductive system including those related to the formation of the penis (i.e. hypospadias), the ducts (i.e. congenital absence of the vas deferens (CAVD)), the testis (e.g. missing or undescended) and those related to chromosomal disorders (i.e. Klinefelter's syndrome). It is beyond the scope of this report to fully explore all these conditions but it is worth noting that hypospadias is generally estimated to occur in about 1 out of every 200-300 live births, but there is a suggestion that the numbers affected are increasing (Caione, 2009). This may be a consequence of better reporting, but nevertheless this should be monitored as cases of congenital deformations seem to be on the increase in males and the causes are not fully understood though the consequences in terms of fertility, risk of testicular cancer (see section 2.3.8) and the psychological impact are very apparent.

2.6.9 References

- Bartoletti R, Mondaini N, Pavone C et al., (2007) Introduction to chronic prostatitis and chronic pelvic pain syndrome (CP/CPPS). Arch Ital Urol Androl 79:55-7
- Braun M, Wassmer G, Klotz T et al., (2000) Epidemiology of erectile dysfunction: results of the 'Cologne Male Survey' International Journal of Impotence Research 12(6):305-311

- Caione P (2009) Prevalence of hypospadias in European Countries – is it increasing? *European Urology* 55:1027-1030
- DTB (2010) Testosterone for 'late-onset hypogonadism' in men? *Drug and Therapeutics Bulletin* 48(6):69-72
- Dall'Era J, Niederberger CS, Meacham RB (2009) Evaluation and treatment of male infertility. In Kirby R, Carson C, White A, Kirby M, (Eds) *Men's Health*. 3rd Ed London, Informa Healthcare
- Eardley I, Fisher W, Rosen RC et al., (2007) The multinational men's attitudes to life and sexuality study: the influence of diabetes on self-reported erectile function, attitudes and treatment-seeking patterns in men with erectile dysfunction. *Int J Clin Pract* 61:1446-1453
- Fisher WA, Rosen RC, Eardley I et al., (2005) Sexual Experience of Female Partners of Men with Erectile Dysfunction: The Female Experience of Men's Attitudes to Life Events and Sexuality (FEMALES) Study. *Journal of Sexual Medicine* 2(5):675-684
- Frånlund M, Hedelin H, Dahlstrand C, (2010) Prevalence of lower urinary tract symptoms and erectile dysfunction: a population-based survey of Swedish men. *European Urology Supplements* 9(2):103
- Giuliano F, Chevret-Measson M, Tsatsaris, A et al., (2002) Prevalence of erectile dysfunction in France: results of an epidemiological survey of a representative sample of 1004 men. *European Urology* 42:382-389
- Hall J (2007) *Psychosexual aspects of men's health* in Serrant-Green, L McClusky, J (2008) *The Sexual Health of Men*. Oxford, Radcliffe Publishing
- Helgason ÁR, Adolfsson J, Dickman P et al., (1996a) Sexual desire, erection, orgasm and ejaculatory functions and their importance to elderly Swedish men: A population-based study. *Age and Ageing* 25:285-291.
- Helgason ÁR, Adolfsson J, Dickman P et al., (1996b) sexual function - the most important disease-specific distress for patients with prostate cancer. *Br. J. Cancer* 73:1417-1421
- Helgason ÁR, Arver S, Adolfsson J et al., (1997a) "Potency" - validation of self-administered questionnaire information with an objective measure of night-time erections and test-retest reliability. *Br. J. Urol.* 81:135-141.]
- Helgason ÁR, Adolfsson J, Dickman P et al., (1997b) Factors associated with waning sexual function among elderly men and prostate cancer patients. *J. Urol.* 158:155-159.
- Hilton I, Kort JB, Elsner CW et al., (2006) Impact of body mass index values on sperm quantity and quality. *Jr Androl* 27(3):450-452

- Jackson G, Padley S (2008) Erectile dysfunction and silent coronary artery disease: abnormal computed tomography coronary angiogram in the presence of normal exercise ECGs. *International Journal of Clinical Practice* 62(6):973-6
- Koskimäki J, Hakama M, Huhtala H (2000) Effect of Erectile Dysfunction on Frequency of Intercourse: A Population Based Prevalence Study In Finland. *The Journal of Urology* 164(2): 367-370
- Laumann EO, Paik A, Rosen RD (2005) Sexual problems among women and men aged 40-80 y: prevalence and correlates identified in the Global Study of Sexual Attitudes and Behaviours. *International Journal of Impotence Research* 17:39-57
- Levy J (1994) Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. *Journal of Urology* 151:54-61
- Mak R, De Backer G, Kornitzer M et al., (2002) Prevalence and Correlates of Erectile Dysfunction in a Population-based Study in Belgium, *European Urology* 41:105-226
- Martin-Morales A, Sanchez-Cruz JJ, Saenz De Tejada I (2001) Prevalence And Independent Risk Factors For Erectile Dysfunction In Spain: Results Of The Epidemiologia De La Disfuncion Erectil Masculina Study. *The Journal of Urology* 166(2):569-575
- Mazzoli S, Cai T, Addonisio P, et al., (2010) Chlamydia trachomatis Infection Is Related to Poor Semen Quality in Young Prostatitis Patients. *European Urology* 57: 708-714
- Mehik A, Hellstrom P, Lukkarinen O et al., (2000) Epidemiology of prostatitis in Finnish men: a population-based crosssectional study. *BJU Int* 86:443–8
- Moreira Jr, ED, Brock G, Glasser DB et al., (2005) Help-seeking behaviour for sexual problems: the Global Study of Sexual Attitudes and Behaviours. *International Journal of Clinical Practice* 59:6-16
- Mulhall J, King R, Glina S (2008) The importance of and Satisfaction with Sex Among Men and Women Worldwide: Results of the Global Better Sex Survey. *Journal of Sexual Medicine*. 5(4): 788–795
- Müller A, Mulhall JP (2006) Cardiovascular disease, metabolic syndrome and erectile dysfunction. *Current Opinion in Urology* 16(6):435-443
10.1097/01.mou.0000250284.83108.a6.
- National Institute of Health (1992) Impotence. NIH Consensus Statement 10(4):1-31
- NCGC (2010) The management of lower urinary tract symptoms in men: methods, evidence & Guidance. London, National Clinical Guideline Centre

- Network (2004) Recent trends in the epidemiology of sexually transmitted infections in the European Union. *Sex Trans Infect* 80:255-263
- Nicolosi A, Moreira E, Shiraid M, et al., (2003) Epidemiology of erectile dysfunction in four countries: cross-national study of the prevalence and correlates of erectile dysfunction. *Urology* 61(1):201-06
- Nicolosi A, Buvat J, Glasser DB et al., (2006) Sexual behaviour, sexual dysfunctions and related help seeking patterns in middle-aged and elderly Europeans: the global study of sexual attitudes and behaviours. *World Journal of Urology* 24(4):423-428
- Nickel JC (2009) Prostatitis and chronic pelvic pain. IN Kirby R, Carson C, White AK, Kirby M, (Eds) *Men's Health* 3rd Ed London, Informa Healthcare
- Nieschlag E, Swerdloff R, Behre HM et al., (2005) Investigation, treatment and monitoring of late-onset hypogonadism in males. ISA, ISSAM and EAU recommendations. *Eur Urol* 48:1-4
- Ponholzera A, Temmlb C, Mocka K et al., (2005) Prevalence and Risk Factors for Erectile Dysfunction in 2869 Men Using a Validated Questionnaire. *European Urology* 47:80–86
- O'Dowd T, Kirk D, Corkery J et al., (2002) *Men's Health: Impact of prostate-related problems on men in work and society*. Funded by the European Commission, University of Dublin
- Ralph D & McNicholas T (2000) UK management guidelines for erectile dysfunction. *BMJ* 321(7259):499
- Rissel C, Richters J, Grulich AE et al., (2003) Sex in Australia: First experiences of vaginal intercourse and oral sex among a representative sample of adults. *Australian and New Zealand Journal of Public Health* 27:131–137
- Rosen R C, Fisher WA, Eardley I et al., (2004) The multinational Men's Attitudes to Life Events and Sexuality (MALES) study: I. Prevalence of erectile dysfunction and related health concerns in the general population. *Current Medical Research and Opinion* 20(5):607-617
- Sand MS, Fisher W, Rosen R et al., (2008) Erectile dysfunction and constructs of masculinity and quality of life in the Multinational Men's Attitudes to Life Events and Sexuality (MALES) study. *Journal of Sexual Medicine* 5:583-594
- Schaeffer A, Landis J, Knauss J et al., (2002) Demographic and clinical characteristics of men with chronic prostatitis: the national institutes of health chronic prostatitis cohort study. *Journal of Urology* 168(2):593-98.
- Solomon H, Man J, Jackson G (2003) Erectile dysfunction and the cardiovascular patient: endothelial dysfunction is the common denominator. *Heart* 89:251-254

- Sönmez NC, Kiremit MC, Güney S, et al., (2010) Sexual dysfunction in type III chronic prostatitis (CP) and chronic pelvic pain syndrome (CPPS) observed in Turkish patients. *Int Urol Nephrol* DOI 10.1007/s11255-010-9809-5
- Vernamme KMC, Dieleman JP, Bleumink GS et al., (2002) Incidence and prevalence of lower urinary tract symptoms suggestive of benign prostatic hyperplasia in primary care – the Triumph Project. *European Urology* 42:323-328
- Walz J, Perrotte P, Hutterer G (2007) Impact of chronic prostatitis like symptoms on the quality of life in a large group of men. *BJU International* 100(6):1307-1311
- Wilt TJ, N'Dow J (2008) Benign prostatic hyperplasia. Part 1--Diagnosis. *BMJ* 336(7636):146-149
- Wilt TJ, N'Dow J (2008) Benign prostatic hyperplasia. Part 2--Management. *BMJ* 336(7637):206-210
- World Association for Sexual Health (2007) Definitions Accepted by the WAS General Assembly, 17April 2007, Sydney Australia. Available at: <http://www.worldsexology.org/sites/default/files/DEFINITIONS-OF-SPECIALTIES.pdf> Last accessed 22/11/10
- Wu FCW, Abdelouahid T, Beynon JM, (2010) Identification of Late-Onset Hypogonadism in Middle-Aged and Elderly Men. *The New England Journal of Medicine* 10.1056/NEJMoa0911191

2.7 Communicable Diseases

2.7.1 Main Points

- Men have a higher risk of dying prematurely from the major infections as a result of reduced immunity and their greater likelihood of either having a lifestyle or social circumstances that makes them more susceptible.
- Pneumonia kills more men across the lifespan until over the age of 80 years. Its strong association with alcohol abuse and other associated risk factors, such as smoking, pre-existing lung disease and HIV/AIDS makes men more likely to develop and die from this disease.
- Tuberculosis was in decline, but it is increasing in sub-populations of men. Drug-resistant strains hamper the management (and containment) of this disease.
- It is difficult to make international comparisons relating to Sexually Transmitted Infections.
- Across Europe there are about 2 HIV cases for every 1 case in women, and 3 AIDS cases to every 1 case in women, with differing patterns of incidence rates across Europe, with a ratio of 5:1 male to female deaths.
- Viral Hepatitis affects more men than women by a ratio of about 4:1.

2.7.2 Summary

Communicable diseases have significantly been reduced in Europe over the last two decades for both men and women, but the gender differences in morbidity and mortality between countries and within the EU are still very significant. The accession countries, particularly those of Eastern Europe and the former soviet block are struggling with higher rates of communicable diseases particularly among men. Across the lifespan deaths from Pneumonia are higher in men and boys until the over 80 age bracket, which accounts for 77% of female deaths and 55.4% male deaths. Tuberculosis continues to be a public health risk with 18 European States in the WHO 'high-priority' category. Mortality from HIV and AIDS has seen a general decrease across EU27 with a larger decrease in Males but there are still 3 new AIDS cases in men to every one in women.

2.7.3 Introduction

There was a confidence growing in the 1960's and 1970's that there was movement towards the eradication of the major communicable diseases. Modern vaccinations and antibiotics had seen the total eradication of small pox

and previously endemic conditions such as mumps, measles, etc. almost disappearing. The late 70's and early 80's brought us back to reality through the emergence of HIV/AIDS and the resurgence of diseases thought to be on the wane, such as tuberculosis and pneumonia. There has also been an increase in antibiotic resistant bacteria, which is both fuelling the increase and making the containment of outbreaks harder to manage.

There is a significant sex and gendered dimension to this rise in infectious diseases. Men and women's immune response differs as a result of higher levels of the female hormone, oestrogen, which stimulates immune responses and testosterone which is immunosuppressive (Kovacs & Messingham, 2002⁴⁸). This increased physiological susceptibility in men to infections is coupled with factors associated with men's lifestyles and health behaviour that further increases their risk.

The reduction in the incidence of infectious diseases has been a result of public health initiatives relating to monitoring, screening and treatment programmes coupled with improvements in the populations general health (and therefore ability to fight off infections) and social conditions. There are however many men for whom their lifestyles either as injecting drug users, high alcohol intake, smoking, poor diet, etc. leave them vulnerable to opportunistic infections. The number of men in prison, homeless, or seeking asylum also increases risks of developing the disease and also being harder to trace and more difficult to engage in treatment regimes. As with other aspects of men's health it is the most vulnerable men and those that lead the most risky lifestyles that are creating the conditions for the spread of the diseases and adding to their level of premature death.

The significance in Europe of the impact on the health and welfare of its residents and its economy of communicable diseases was given prominence with the establishment in 2004 of the European Centre for Disease Prevention and Control (ECDC). The First European Communicable Disease Epidemiological Report (ECDC, 2007) records the current trends in communicable diseases and calls on Member States to be vigilant in ensuring that the overall decrease in incidence does not reverse. The report identifies that the rate of Hepatitis B in males (1.33 per 100 000) was 2.3 times that in women (0.58 per 100 000). It

⁴⁸ <http://pubs.niaaa.nih.gov/publications/arh26-4/257-263.htm>)

also reports that in Europe TB is more common in men than women (male:female ratio in 2005 = 1.7), the same being true for pneumonia. The opportunity to recommend concerted action as to the marked differences between men and women is not recorded although the World Health Organisation (2007) has called for gender studies around TB.

Though this section deals with the major causes of infection for men it is not to be forgotten that there are opportunities to influence the health of women directly through programmes aimed at men. The introduction of vaccination for men against rubella is a case in point with another opportunity opening up now a vaccination is available for the human papillomavirus (HPV), a principal cause of cervical cancer and also anal cancer in both women and homosexual men. Making this available for boys as well as girls will help prevent the spread of this virus and further reduce the risk of cancer.

2.7.4 Pneumonia

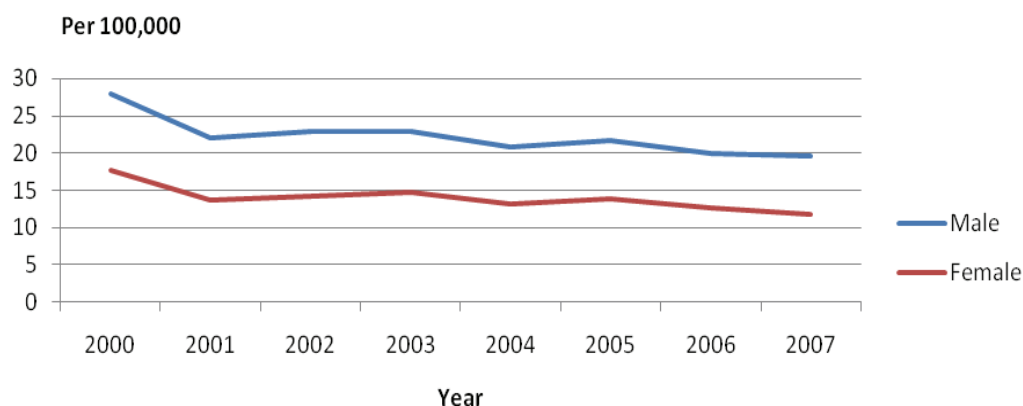
Pneumonia is the biggest cause of death from a communicable cause. In 2007, it accounted for some 59,414 deaths in men across EU27 (66,197 deaths in women). Pneumonia is responsible for some 2.5% of male deaths across EU27 (2.8% female deaths). Despite the higher absolute number of deaths among women, men have a higher standardised death rate: more deaths in women occur among those over age 80 years (77% compared to 55% for men).

The causes of pneumonia include a number of different infecting agents. It can result from external causes which have specific importance to men's increased vulnerability. The risk of developing pneumonia is greater in people with general ill-health or with pre-existing lung disease. It is also greater in smokers, users of immunosuppressant drugs, and users of intravenous drugs. A further significant factor is alcohol abuse, which results in a diminished immune response and increases the risk of developing the disease and of its severity (de Roux et al., 2006). The most common AIDS associated disease in 2008 was *Pneumocystis pneumonia* (22%)⁴⁹.

There has been an overall steady decline in the age-standardised death rate for Pneumonia, with the rate of decline similar for both men and women (Fig. 2.7.1).

⁴⁹ HIV AIDS Surveillance in Europe report. ECDC 2008

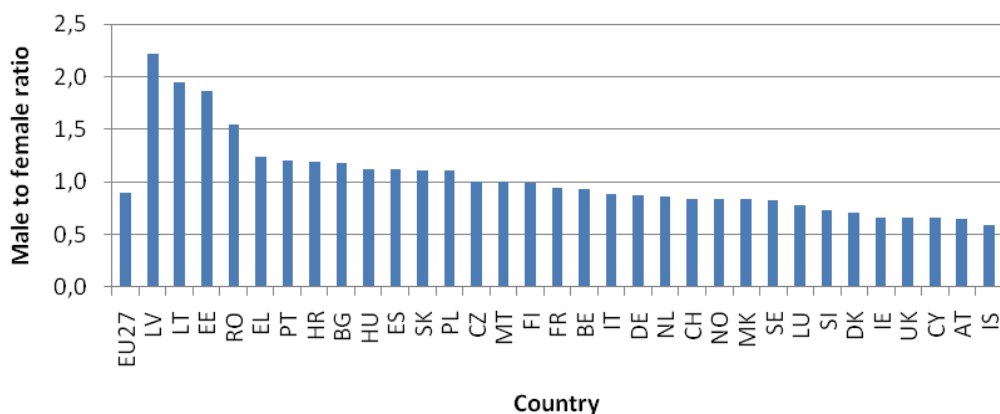
Fig. 2.7.1 Time trends of Pneumonia mortality, by sex, all ages, EU27, 2000-2007



Source: Eurostat hlth_cd_asdr

Analysis of the total number of deaths due to pneumonia shows that overall there are more female deaths in the EU27, but within the Eastern European countries there is an excess of male deaths, with Latvia having over twice as many men die as women (Fig. 2.7.2).

Fig. 2.7.2 Male to female ratio of deaths due to Pneumonia, by country, latest year¹

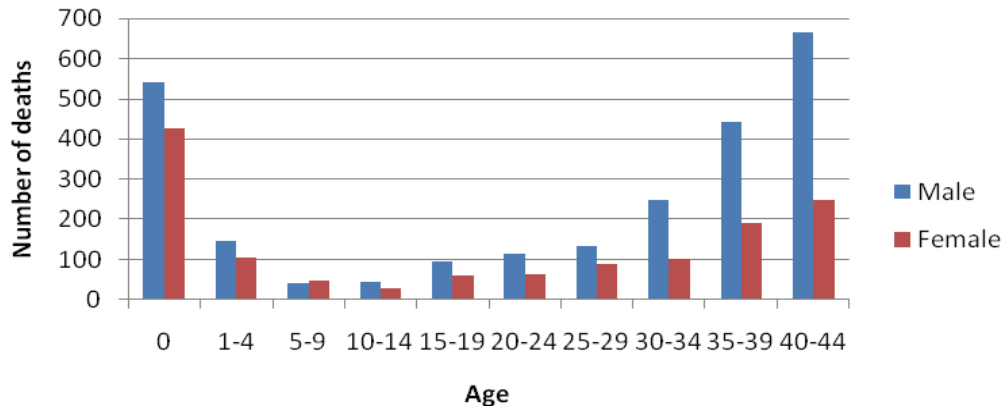


Source: Eurostat hlth_cd_anr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE (2007). DK, LU, PT (2006). BE (2004)

When age is taken into consideration it can be seen that infant boys seem to be at a greater risk of dying of pneumonia than infant girls and throughout the lifespan (apart from girls aged 5-9 yrs) male deaths exceed female deaths (Fig. 2.7.3 & Fig. 2.7.4). The majority of the deaths occur over the age of 80 years

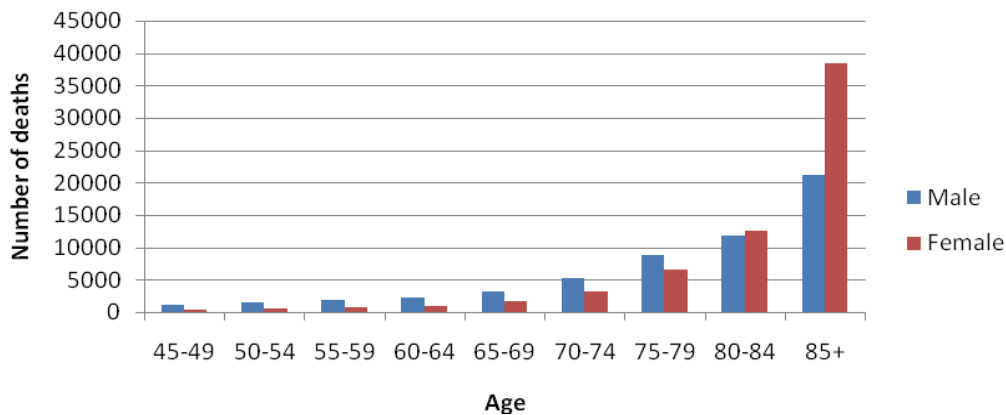
with some 55% of male deaths and 77% of female deaths as a result of Pneumonia occurring over this age (Fig. 2.7.3).

Fig. 2.7.3 Deaths for males and females due to pneumonia, by sex, ages 0-44 years, EU27, 2007



Source: Eurostat hlth_cd_anr

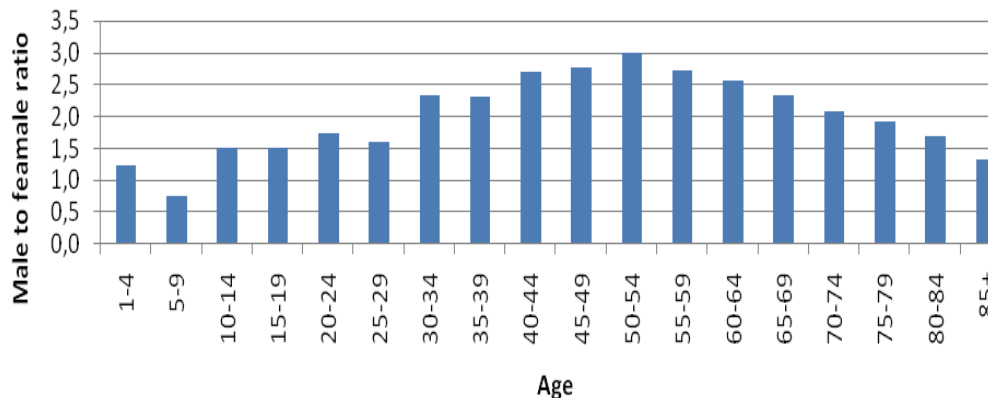
Fig. 2.7.4 Deaths for males and females due Pneumonia, by sex, ages 45-85+ years, EU27, 2007



Source: Eurostat hlth_cd_anr

With respect to the rate of death per 100,000 population, there is a higher ratio of male to female deaths across the age range (with the exception of the 5-9 age group) (Fig. 2.7.5). Although the number of deaths among people aged 85+ years is greater in women, the rate for men is higher given the smaller number of men who live to 85+ years of age. The peak 3-fold higher rate of death in men aged 50-54 again reinforces the challenges men face in these middle years.

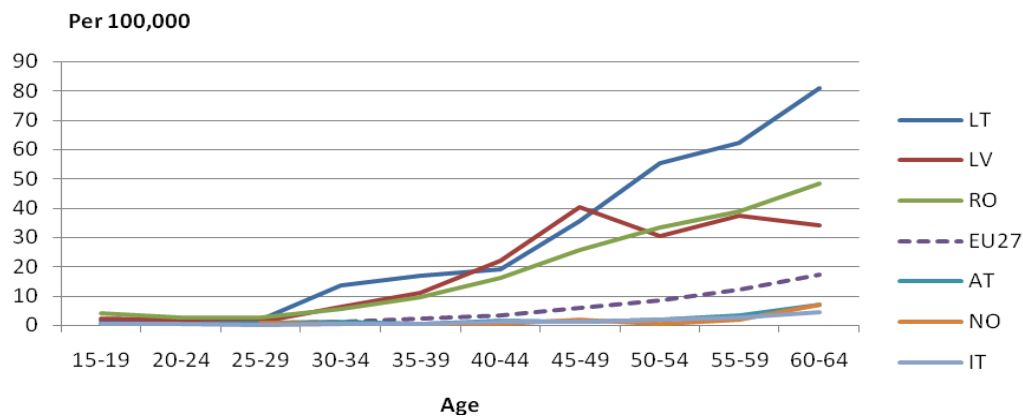
Fig. 2.7.5 Male to female ratio of the age specific death rates for Pneumonia, EU27, 2007



Source: Eurostat hlth_cd_acdr

When the individual countries are considered there are again marked differences between the Eastern and Western European states (Fig. 2.7.6), with Lithuania showing a rate of over 80 deaths per 100,000 at age 60-64 as compared the EU27 rate of under 20 deaths per 100,000 and Italy with fewer than 5 deaths per 100,000 population.

Fig. 2.7.6 Age specific death rates for Pneumonia, male, selected countries, latest year



Source: Eurostat hlth_cd_acdr

2.7.5 Tuberculosis

In the majority of the populations across the countries covered by this report, the number of cases of tuberculosis (TB) is declining. It had been felt that we were coming to a point of seeing its eradication. However, this trend is not true

for all countries or for all groups within individual countries: TB is now seen as an increasing public health risk.

The success stories of the past were a result of a sustained programme of immunisation, surveillance, contact tracing and screening for infected individuals, and treatment coupled with improving social conditions. These actions cut the route of transmission for the contagious *Mycobacterium tuberculosis* bacillus and prevented the disease from taking a hold within communities. However, this requires sophisticated health care systems staffed by capable practitioners. In many countries across the globe these prerequisites are missing. One consequence is a greater spread of the disease. A second is the development of drug-resistant strains as a result of poor patient management, non-adherence to prescribed medicine, and poor national programmes (Davies, 2001). In all countries - not just those countries experiencing difficulties within their health systems - TB poses a particular threat to people in vulnerable communities and there is concern of the ripple effect out across the rest of the population, especially where drug-resistant strains are involved.

The spread of TB infection is primarily person-to-person via the inhalation or ingestion of infected droplets. It is usually contained by the body's natural defences into a fibrous capsule following a mild illness. This latent form of TB can exist for many years until re-infection or through the weakening of the individual's immune system.

It is a disease that is generally exacerbated by smoking and those who engage in substance abuse – especially injecting drug users (IDUs) and those who have problems with alcohol misuse are also particularly at risk. It is also a serious condition for those with compromised immune systems: TB is the most common cause of death in those with the HIV/AIDS virus (Corbett et al., 2003). The Berlin Declaration (WHO, 2007) notes that the “two diseases together represent a deadly combination that is more destructive than either disease alone” (p2).

TB thrives in populations which have greater difficulty in accessing public health services.

Globally, the high incidence countries include most of the developing countries and 18 European states are categorised (WHO, 2007) as being high-priority

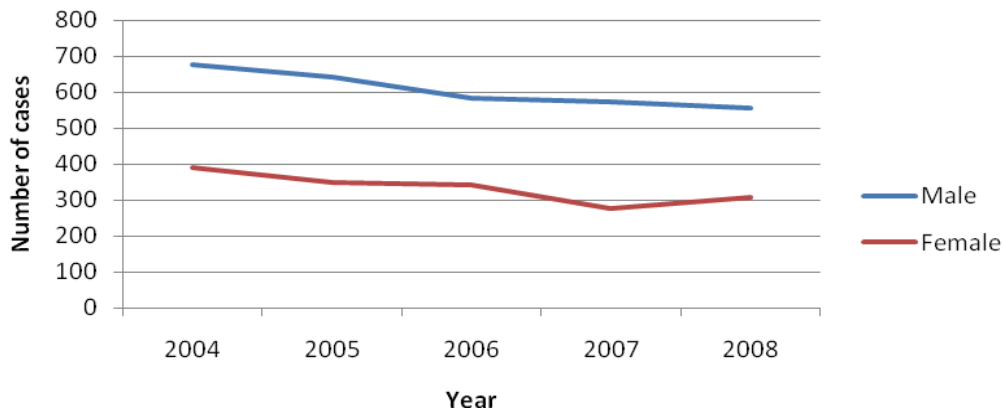
(Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan). The European Region has the highest number of drug resistant cases in the world and though many of these are not within the countries included in this study the rate of inward migration from these neighbouring countries is a very local threat and the greatest number of cases within Europe are to be seen in foreign nationals who have emigrated or are seeking asylum from countries where the disease is rife. Many have latent TB on arrival and develop the full disease during their stay. They also tend to more likely to be suffering from Multi-Drug Resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB).

With the management of TB requiring an extended treatment programme to elicit a full cure there is a significant problem is keeping people on their medication regime, especially as the non adherers not only jeopardise their recovery but also create the opportunities for resistant strains to emerge. This is linked to a lack of awareness in the general public about the risks associated with TB and to protective measures that can be taken. The problem of non-adherence to drug regimes is a factor related to this ignorance of the disease and its treatment. A further factor is the risk of affected individuals avoiding health services due to the fear of being repatriated.

It is relevant that the "Plan to Stop TB in 18 High-priority Countries in the WHO European Region 2007-2015" (WHO, 2007) notes that "Additional studies are required to explore gender differences in TB case reporting and understand if it is due to male-specific TB risk groups (such as prisoners or injecting drug users) or to differences in access to TB services and in reporting" (p7).

Across 30 of the 34 countries covered by this report, for which data are currently available, there were 53,424 new cases of TB in men and 29108 cases in women for 2008 (ECDC, 2010). These figures represent a reduction of nearly 3500 cases for both men and women since 2004 (see Fig. 2.7.7 for median number of cases over this time period). For the EU27, TB accounts for only 0.2% of overall deaths. However the low number of deaths and the overall downward trend have to be treated cautiously, because there are some very concerning figures in some parts of Europe.

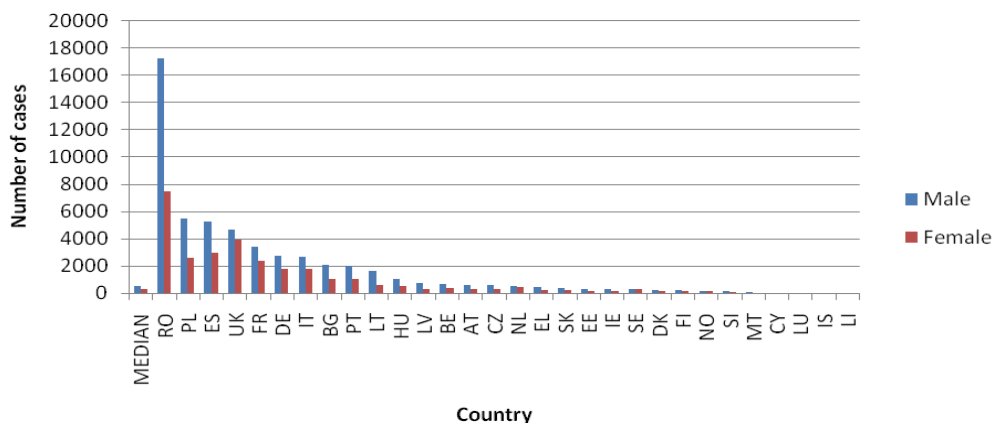
Fig. 2.7.7 Time trends in the median number of cases for the 29 available countries for Tuberculosis, by sex, 2004-2008



Source: ECDC

Although the median number of cases is relatively small in relation to total population in the majority of countries, some countries have far higher numbers: Romania had 17293 male cases in 2008 (though this has dropped considerably from the 21331 cases seen in 2004) and Poland, Spain and the UK all had over 4,000 cases (Fig. 2.7.8). The UK has increased from 4210 in 2004 to 4700 in 2008 (with a bigger increase in female numbers from 3390 in 2004 to 3919 in 2008).

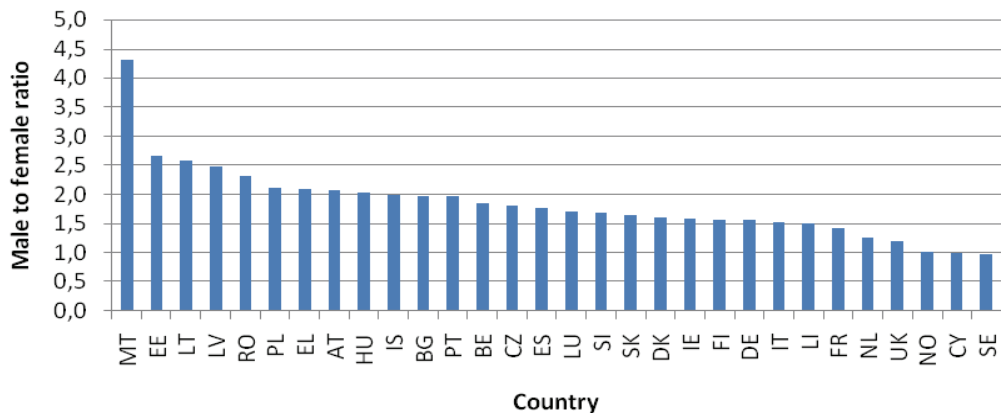
Fig. 2.7.8 Total number of reported cases of Tuberculosis, by sex and country, latest year¹



Source: ECDC¹ 2008 except AT, LI (2007)

The male to female ratio of cases highlights the differential impact this condition has on men, with only Sweden having a higher number of women affected by the condition (Fig. 2.7.9).

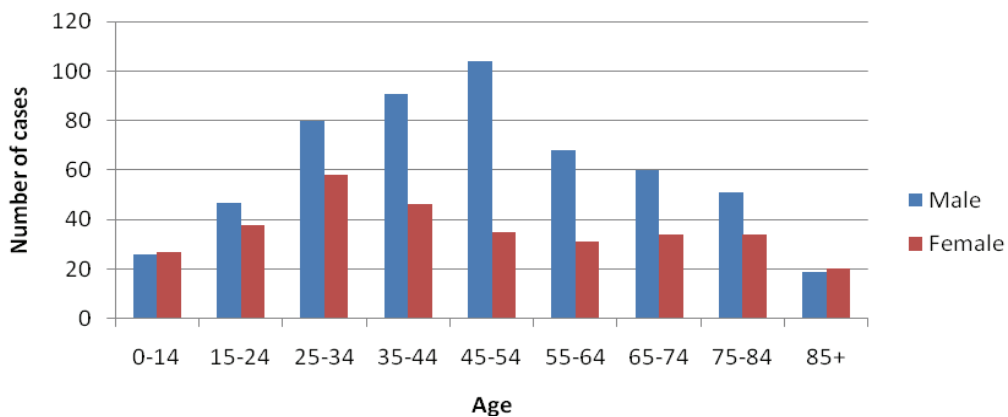
Fig. 2.7.9 Male to female rate ratio for cases of Tuberculosis, latest year



Source: ECDC¹ 2008 except AT, LI (2007)

The differential impact of TB by age is evident in Fig. 2.7.10, where the greatest number of cases is seen in the 45-54 age group for men. Age appears to have less of an effect on whether women develop the disease.

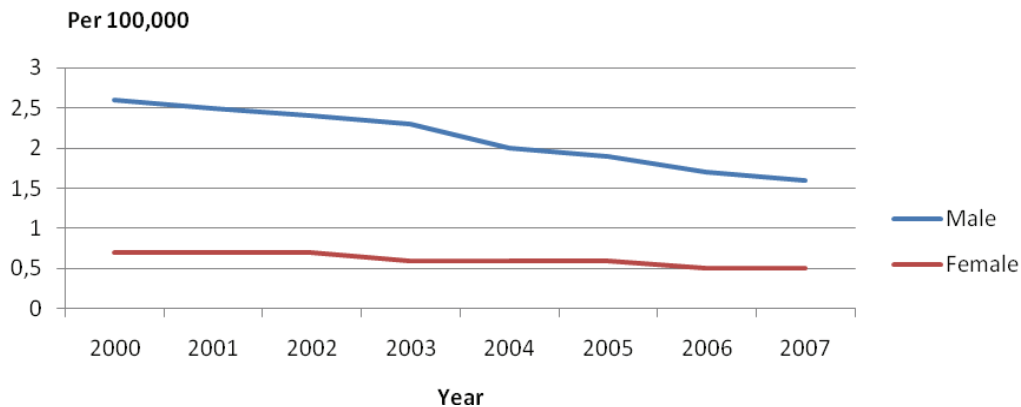
Fig. 2.7.10 Median number of cases of Tuberculosis by sex and age for the 29 available countries, latest year



Source: ECDC

Age standardised mortality for TB shows a rapid decline in male deaths between 2000 and 2007 across EU27 from 2.6 per 100,000 in 2000 to about 1.6 per 100,000 in 2007, this is a much steeper decrease than the relatively slower rate of improvement for women (2.7.11).

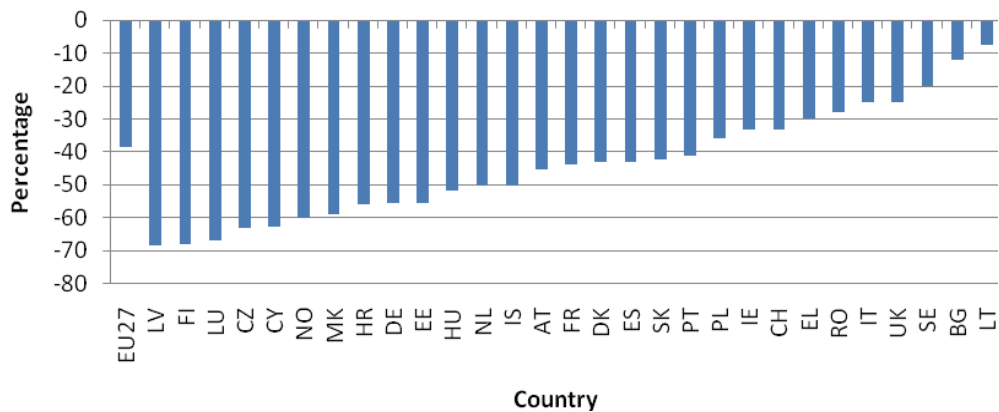
Fig. 2.7.11 Time trends in Tuberculosis mortality, by sex, all ages, EU27, 2000-2007



Source: Eurostat hlth_cd_asdr

There has been an increase in deaths in Malta (from 0.5 to 2.8 per 100,000) and in Slovakia (from 0.8 to 1.6 per 100,000) but there has been a decrease in TB in all the other countries where data are available, and has been most noticeable in Latvia (68% reduction) (Fig. 2.7.12 – not including Malta and Slovakia due to scale of percentage increase).

Fig. 2.7.12 Change in age standardised rate of death for Tuberculosis, males, EU27, 2000 – latest year¹

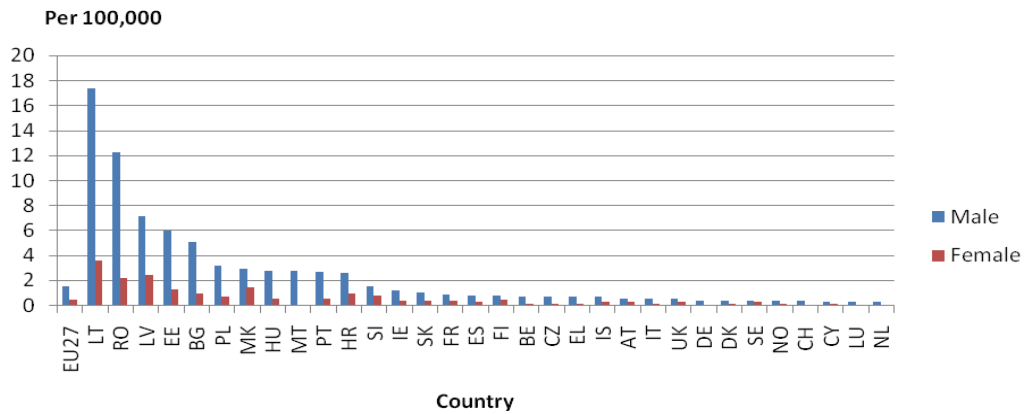


Source: Eurostat hlth_cd_asdr NB: CY 2004-2007, FR 2001-2007, IS 2001-2006, etc

Across the EU27 there is an age standardised death rate of 1.6 per 100,000 for men compared to 0.5 per 100,000 for women, and this higher rate for men persists across all the countries. Lithuania, Romania, Latvia and Estonia and

Bulgaria stand out as having markedly higher rates than the other countries, with Lithuania some ten times higher than the EU27 (Fig. 2.7.12).

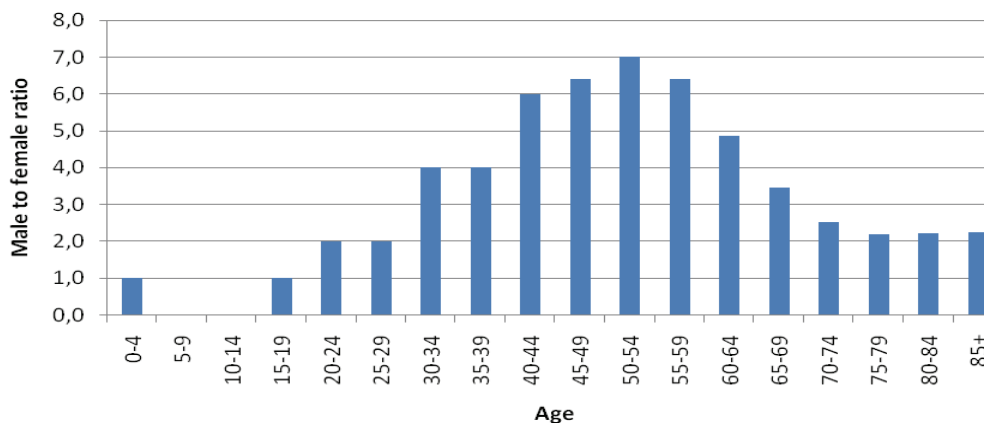
Fig. 2.7.13 Age standardised mortality rates for Tuberculosis, by sex, and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, IS LU, PT (2006). BE (2004)

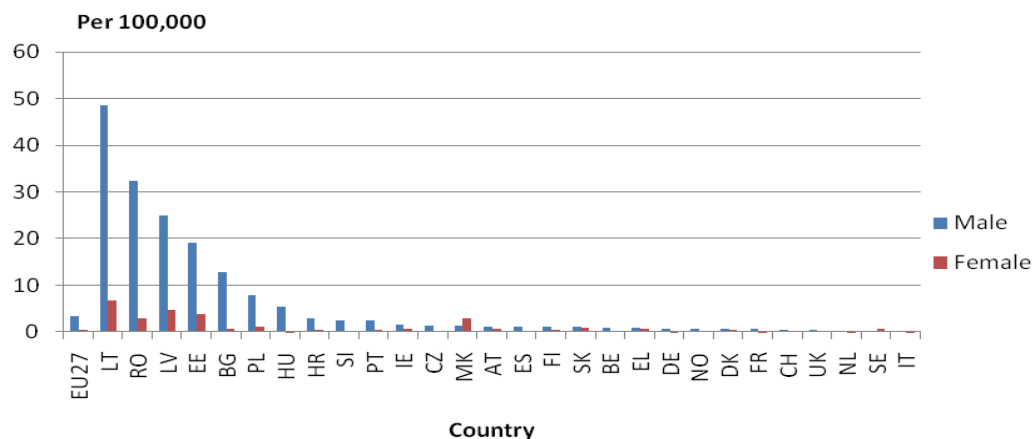
The peak male:female mortality ratio is seen in the 50-54 age range, with nearly 7 times as many male deaths (Fig. 2.7.14). Exploration of the data from the countries for this age range shows that the Eastern European countries are carrying the majority of that burden, with Lithuania having a death rate of 48.5 per 100,000 compared to 3.4 per 100,000 for EU27 as a whole (Fig. 2.7.15).

Fig. 2.7.14 Age specific 3 year average mortality rate Male to Female ratio for Tuberculosis, EU27



Source: Eurostat hlth_cd_ycdrf; hlth_cd_ycdrm

Fig. 2.7.15 Age specific mortality rates, for Tuberculosis, ages 50-54 years, latest year



Source: Eurostat hlth_cd_acdr

2.7.6 Sexually Transmitted Infections

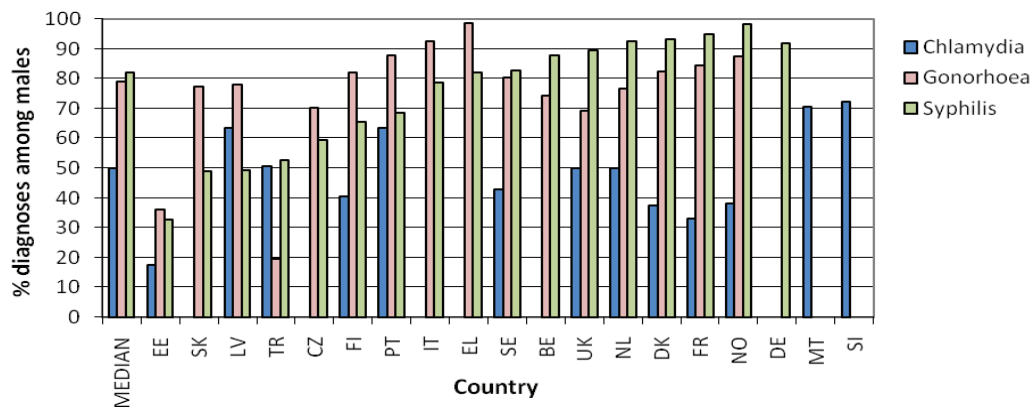
An important component of sexual health is sexually transmitted infections (STIs). Untreated STIs can be painful or uncomfortable and may lead to serious long-term consequences for men’s reproductive health, and may impair the health of their sexual partners.

As noted in Section 1.4, sexually transmitted infection rates are affected by a range of factors: decreases in the age of first sexual experiences, higher rates of change of sexual partners, more diverse sexual networks, and inconsistent patterns of condom use. In the absence of vaccines or effective cures for many STIs, safer sexual behaviour is an important aspect of epidemiological control. It is also important to monitor risk behaviour. Although surveys of representative samples have been conducted in many European countries, it is often difficult to make comparisons because of variations in sampling, data collection and measurement. Comparisons of STI rates between EU nations are hampered by substantial differences in national systems of STI surveillance and behavioural monitoring (ECDC, 2008, 2009). Without comprehensive and systematic STI surveillance and reporting, it is impossible to make simple comparisons between European countries. The lack of such systems hampers the capacity of many countries to monitor changes in STI epidemiology and to evaluate the efficacy of interventions designed to limit the spread of STIs.

European STI surveillance data (ESSTI, 2008) reveal some important sex differences in STIs (Fig. 2.7.16). Although less than half (45%) of all diagnoses

of Chlamydia occur in men, in four of the 13 countries with valid data (Latvia, Malta, Portugal, Slovenia) men comprise the majority of Chlamydia diagnoses. Furthermore, the age distribution among men is different to than for women, with a greater proportion of diagnoses in men occurring in those aged over 25 than is the case for women.

Fig. 2.7.16 Proportion of sexually transmitted infections, male, by country, 2008



Source: ESSTI Annual Report 2008

The sex distribution of gonorrhoea and syphilis is markedly different to that for Chlamydia. Across the 18 countries with valid comparable data, 71% of all diagnoses of gonorrhoea infection occurred in men: in only two countries (Estonia and Turkey) was gonorrhoea more likely to be diagnosed in women. Although direct comparisons are confounded by differences in definitions, men are also more likely than women to have been diagnosed with syphilis: in 14 of the 18 countries, the majority of syphilis diagnoses occurred in men, and in 8 countries over 80% of diagnoses occurred in men. The male to female ratios do not appear to be affected by the stage of infection used in different countries' surveillance data. The age distributions among men and women differ: a greater proportion of gonorrhoea and syphilis diagnoses in men occur in those aged over 25 than is the case for women.

Homosexually active men are at particular risk for STIs (ESSTI, 2008). Among men, the proportion of diagnoses of gonorrhoea and syphilis are markedly higher than the population proportions of homosexually active men. The proportion of gonorrhoea attributed to homosexual transmission ranged from 19% to 69%, and in 7 of the 10 countries with data on presumed transmission

mode, the majority of infections among men were attributed to homosexual activity.

For all major infections - Chlamydia, gonorrhoea, HIV, syphilis - late adolescents and young adults are most likely to be diagnosed with an STI.

Across Europe there is also variation in trends of STI incidence and prevalence. Such variation means that it is not possible to make broad statements about STIs in Europe: there appear to be several different concurrent epidemiological patterns. For example, data from the decade 1991 to 2000 show that in the then 12 EU Member States there was wide variation in the population prevalence of STIs, and that the patterns of change also varied considerably between nations and at different times: some countries reported increases in the periods 1991-1995 and 1995-2000, some reported increases followed by declines, and some reported declines in both periods (Fenton et al., 2004). Observed increases in STI rates have been particularly prominent among homosexually active men, young people, and residents of large urban areas.

2.7.7 HIV/AIDS

Human Immunodeficiency Virus (HIV) is a retrovirus which causes Acquired Immune Deficiency Syndrome (AIDS) by damaging the immune system to such an extent that it cannot overcome other infections. There is no vaccine or cure for HIV/AIDS. The speed of progression to AIDS can be slowed if antiretroviral medication is available, and if people use such medication with good adherence.

It is estimated that 33 million people worldwide are infected with HIV, with over 2.5 million new infections per year (UNAIDS/WHO, 2009). The global database presents data in categories that do not allow a brief summary of the HIV/AIDS epidemic in Europe: instead, data are available for two clusters: Western & Central Europe, and Eastern Europe & Central Asia. When combined, it is estimated that in Europe and Central Asia there are 2.3 million people living with HIV, and that each year there are 140,000 new HIV infections and 100,000 deaths from AIDS (UNAIDS/WHO, 2009). The estimated population prevalence of HIV is 0.7% in Eastern Europe & Central Asia and 0.3% in Western & Central Europe.

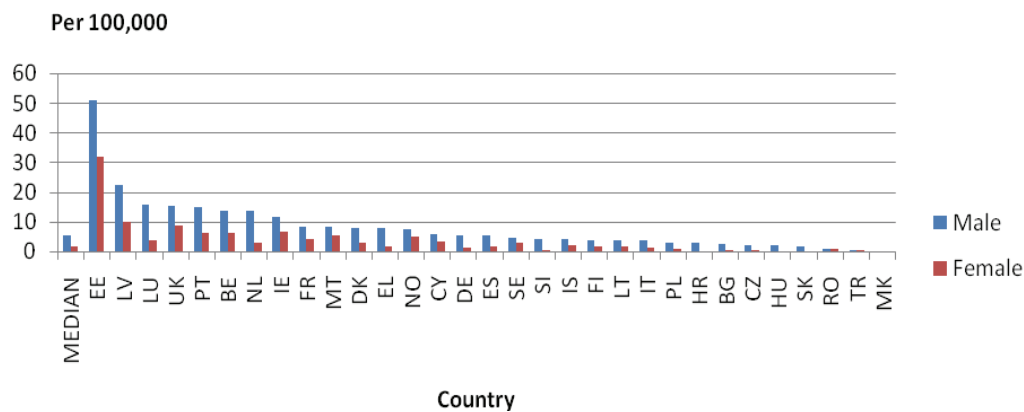
In people infected with HIV, the virus is found in the blood, sexual fluids, and breast milk. HIV can be transmitted to another person when sufficient

quantities of these fluids get into the blood of another person. This can happen in various ways: sexual intercourse without a condom; contact with blood or blood products; injection drug use; and mother-to-child transmission during pregnancy, birth, or breastfeeding. Globally, the predominant mode of transmission is unprotected heterosexual activity, and in many countries in Europe, the proportion of new infections due to heterosexual transmission is increasing (UNAIDS/WHO, 2009). However, the predominant modes of transmission in Europe have been sexual activity between men and injection drug use. The relative importance of male homosexual activity, injection drug use, and other modes of transmission varies between countries within Europe, and has varied over the course of the epidemic. For example, whereas Western Europe has seen large declines in the proportion of new infections among injection drug users, this mode of transmission continues to account for a large proportion of new infections in Eastern Europe (UNAIDS/WHO, 2009). In the absence of a vaccine or cure for HIV/AIDS, safer behaviour - e.g., consistent condom use, not sharing needles - is crucial.

Within Europe, there are more men than women infected with HIV, and men continue to be more likely than women to become infected with HIV (see Fig. 2.7.17). Fig. 2.7.17 also shows that across Europe there is wide variation in the rate of new HIV diagnoses among men, with Estonia carrying a particularly high burden of the disease.

A review of HIV epidemiology in Eastern and Central Europe indicated that men are more likely than women to become infected because of the high proportion of transmission attributable to sex between men and injecting drug use (which is more likely among men) (Bozicevic et al., 2009). However, it is important to note that there is wide variation across Europe in the proportion of new HIV infections attributable to sex between men - ranging from a low of 0% in several countries, to accounting for the majority of new infections in the Czech Republic (56%) and Croatia (53%) - and to heterosexual contact - ranging from a low of 8% in Poland to a high of 84% in Albania (ibid).

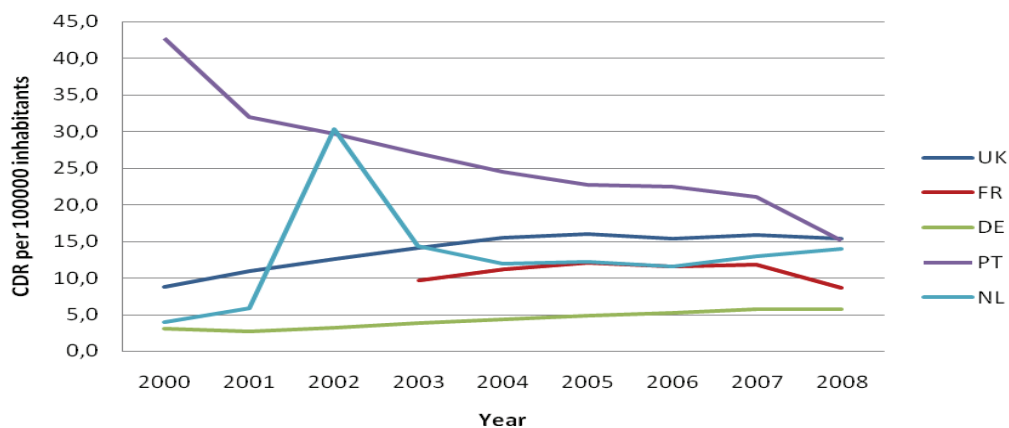
Fig. 2.7.17 Rate of new HIV cases, by sex and country, latest year ¹



Source: calculated from ECDC. ¹ 2008 except IT, DK, TR (2007)

It is important to note that simple incidence data such as those shown in Fig. 2.7.17 may be affected by the availability and uptake of HIV screening. Such data also provide no information about the timing of HIV testing relative to the onset of AIDS or AIDS-related illnesses. However, this information is important because the health and future prospects of people diagnosed with HIV soon after infection are likely to be quite different than those of people who are only diagnosed with HIV after their immune system has suffered substantial damage from the virus.

Fig. 2.7.18 Time trends in the rate of new HIV cases for selected countries, male, 2000-2008

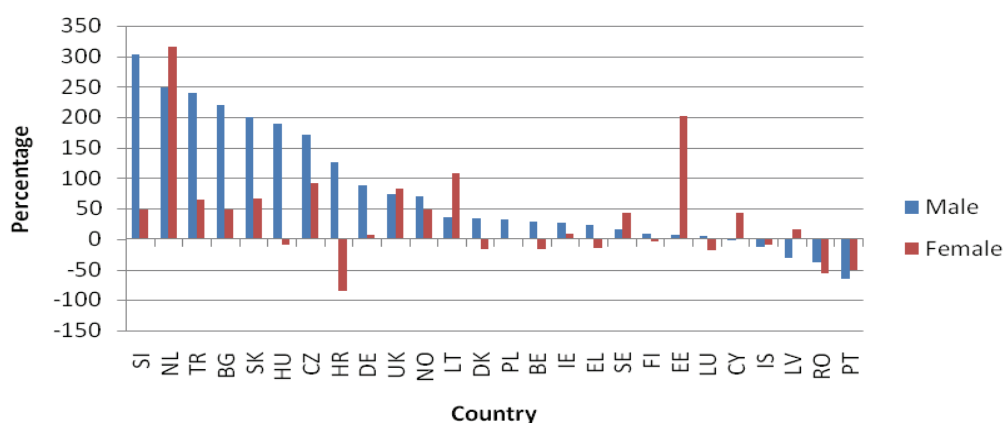


Source: calculated from ECDC

The data in the Fig. 2.7.19 show that in all but 4 of the 26 countries there was an overall increase in the rate of new cases of HIV in men over the last decade. In the Netherlands as well as several Central and Eastern European countries

(Slovenia, Turkey, Slovakia, Bulgaria, Hungary, Czech Republic, Croatia), there was at least a doubling in the rate of new HIV diagnoses in men over the last decade. Only Portugal, Romania, and Latvia observed declines in HIV cases among men. The largest change is in small countries reporting small numbers at the start of HIV epidemic around 2000. All other decreasing trends are due to underreporting and under diagnosis or reporting delay.

Fig. 2.7.19 Percentage change in the case rate for HIV, by sex and country, 2000-latest year¹

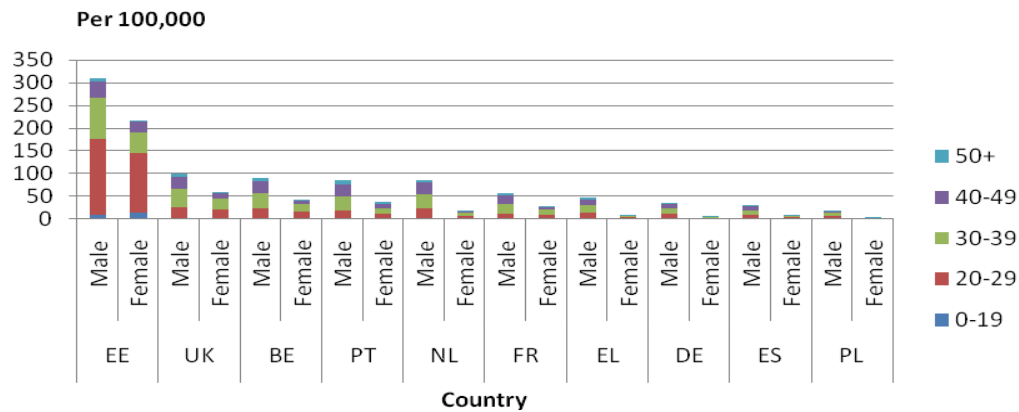


Source: ECDC ¹ 2008 except DK, TR (2007)

Fig. 2.7.19 shows that the overall increase in HIV cases over the last decade was greater among men than women. In 17 of the 26 countries, changes in HIV cases were less positive among men than among women. HIV infections have increased in most countries despite substantial health promotion activities in many countries. For several countries there was a change in surveillance system, which may have contributed to the change (e.g. NL in 2002, Malta 2004). For several other countries there was a peak of HIV epidemic in 2000-2002, therefore it is most likely in subsequent years the change would be less pronounced (LT, EE) or even negative (LV). Usually some countries have important reporting delays for the most recent years (PT, FR).

The data in Fig. 2.7.20 indicate that in most countries, the largest proportion of HIV diagnoses occur in men and women aged 30-39. One exception to this pattern appear to be Estonia, where younger adults account for the largest proportion of new diagnoses. There are relatively few diagnoses among children and adolescents.

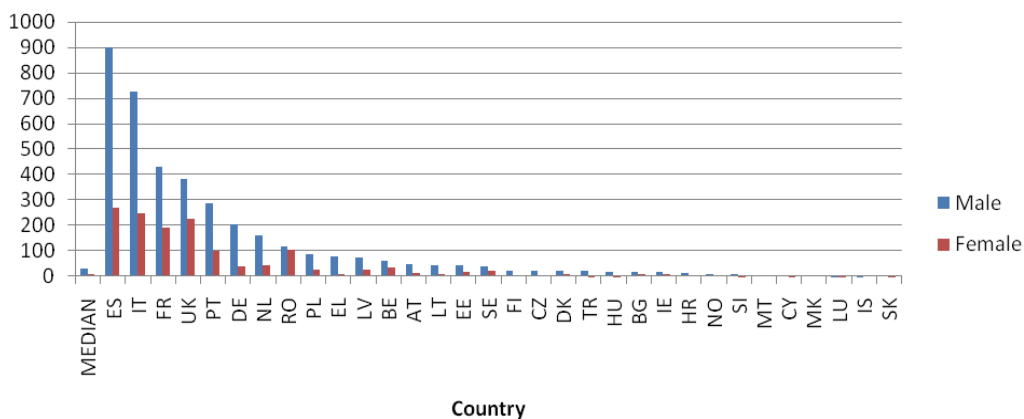
Fig. 2.7.20 Rate of new HIV cases by age & sex, for selected countries 2008



Source: calculated from ECDC

The data in Fig. 2.7.21 repeat the patterns displayed in Fig. 2.7.17, and show that each year substantially more men than women are diagnosed with AIDS. The drop of the trend line seen in the last year is mainly due to reporting delays (FR, PT); Only in Romania - and for reasons that are not clear - was there anything close to parity in the number of AIDS diagnoses in men and women, and in many countries there were at least three AIDS diagnoses in men for every diagnosis among women.

Fig. 2.7.21 Number of AIDS cases, by sex and country, latest year¹

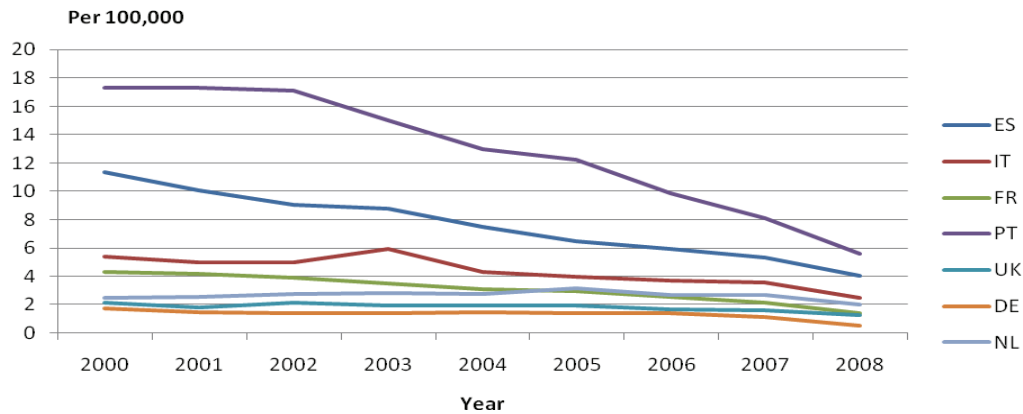


Data from ECDC. 2008 except DK, SE, TR (2007)

Whereas Fig. 2.7.20 only addressed the most recent year, Fig. 2.7.21 presents information about trends in AIDS diagnoses in men over the last decade for a handful of Western European countries. There has been some variation between countries, but the promising conclusion to draw from these data is that the

number of AIDS diagnoses is steady or declining in all countries. Some countries experienced marked declines: In France, Portugal, Germany there has been a three fold reduction in the rate of AIDS diagnoses in men.

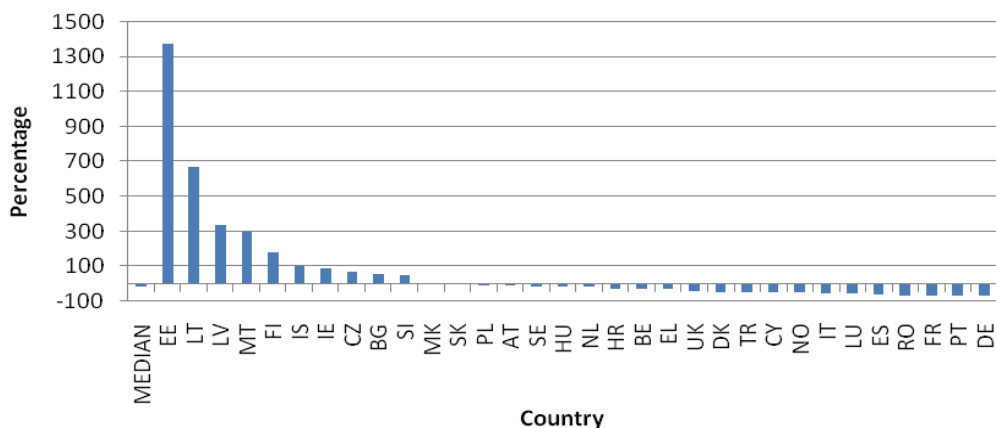
Fig. 2.7.22 Time trends of AIDS cases, male, for selected countries, 2000-2008



Source: calculated from ECDC

Fig. 2.7.23 includes broader coverage than Fig. 2.7.22 and confirms the overall decline in AIDS diagnosis in many countries over the last decade. However, it also reveals that AIDS diagnoses have more than doubled in five countries.

Fig. 2.7.23 Percentage change in AIDS cases, male, by country, 2000-latest year (NB some of the figures are small so percentage change very large)

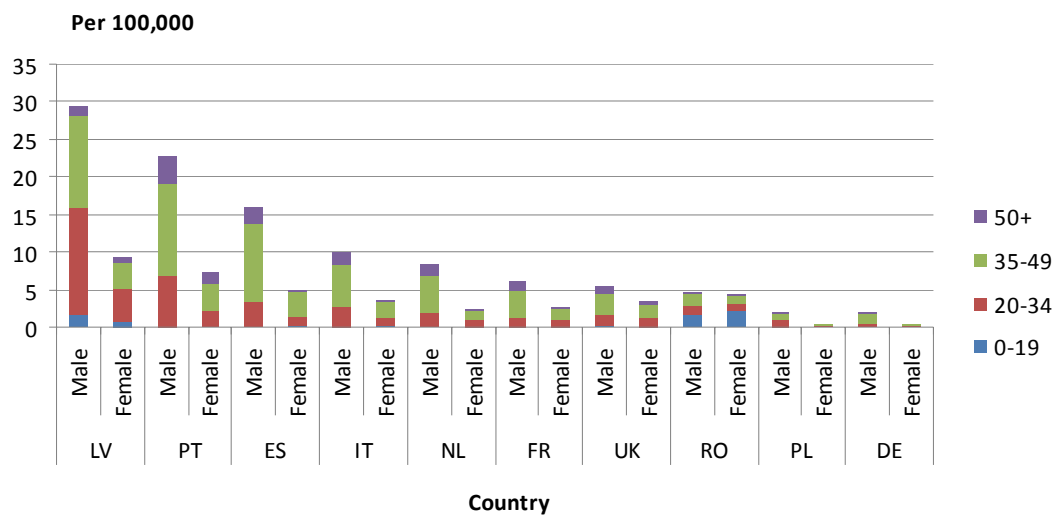


Source: ECDC. ¹ 2008 except DK, SE, TR (2007)

Fig. 2.7.24 shows that in most countries the largest proportion of HIV diagnoses occur in men and women aged 35-49. Direct comparisons between these data

and those contained in Fig. 2.7.20 are difficult due to the use of different age bands. Change is due in some to small numbers (SI), in others there may have been changes in their reporting system (NL); however, when comparing the two sets of data, it is apparent that a greater proportion of AIDS diagnoses than HIV diagnoses occur in older adults. This reflects a typical latency period of several years between diagnosis with HIV infection and diagnosis with an AIDS-defining illness.

Fig. 2.7.24 Rate of AIDS cases by sex & age, for selected countries, 2008



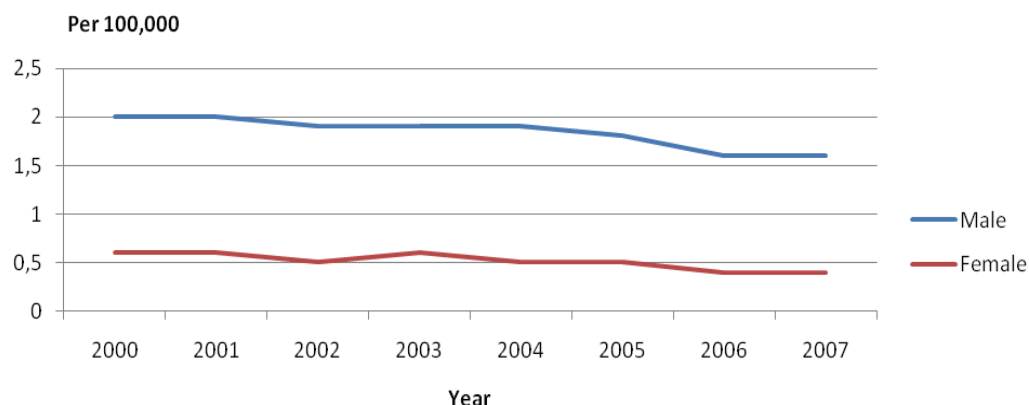
Source: calculated from ECDC

What the available data do not allow is a comprehensive analysis of variations in modes of transmission of HIV.

2.7.7.1 Mortality from HIV /AIDS

Over time there has been a general decrease in the number of deaths associated with HIV (B20-B29) across EU27, with a larger decrease in the male figures than the female (Fig. 2.7.25).

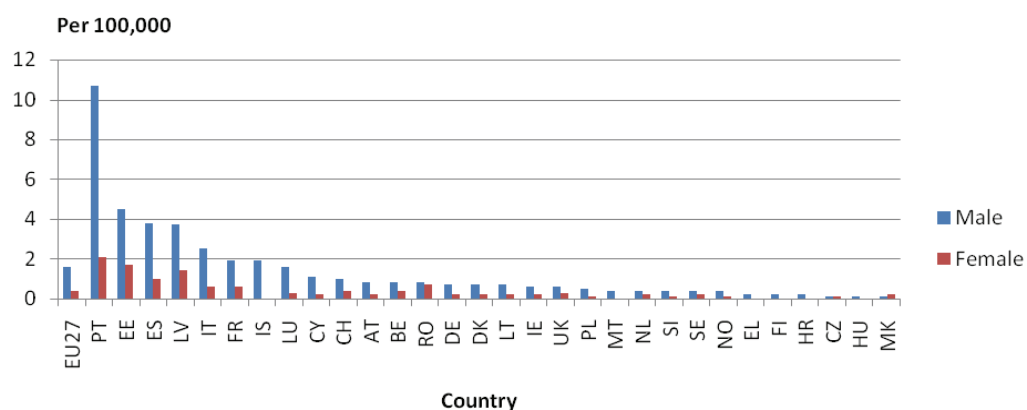
Fig. 2.7.25 Time trends in death rates due to HIV, by sex, EU27, 2000-2007



Source: Eurostat hlth_cd_asdr

Along with Fig. 2.7.26 these two graphs highlight that for the EU27 overall, as well as the vast majority of individual countries, there is a clear preponderance of male deaths due to HIV, for example, Portugal has the highest HIV death rate with a male:female ratio of approximately 5:1.

Fig. 2.7.26 Age standardised death rates for HIV, by sex, and country, all ages, latest year¹



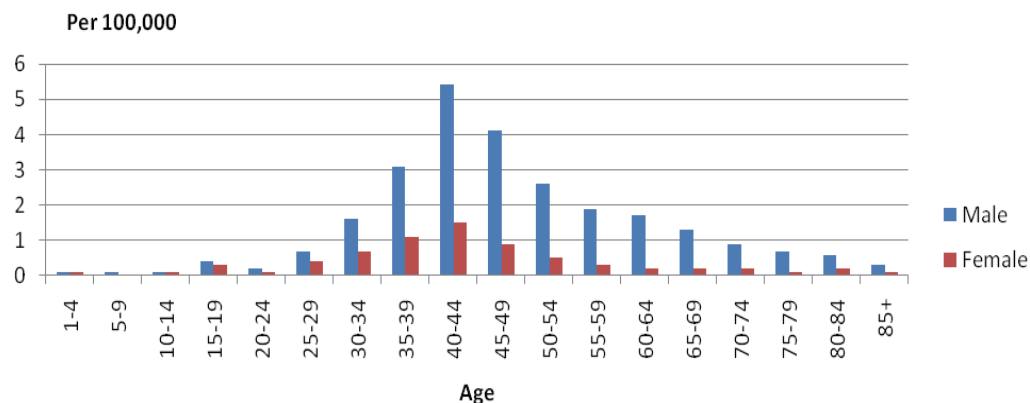
Source: Eurostat hlth_cd_asdr. ¹ 2008 except CH, CY, EU27, FR, IT, MK, MT, PL, RO, SE, UK (2007). DK, IS, LU, PT (2006). BE (2004)

Comparing of these data to those displayed in Fig. 2.7.21 highlights the importance of not relying too heavily on simple AIDS diagnosis figures when making between-country comparisons. It is important to consider the size of the population in which the incident cases are found, the stage of epidemic and the link between diagnosis and deaths. For example, in terms of simple numbers,

the UK has the fourth highest number of AIDS diagnoses each year, but only the 18th highest AIDS death rate.

There are clear age trends with men in their forties seeing the highest death rates for HIV (Fig. 2.7.27).

Fig. 2.7.27 Age specific death rates for HIV, by sex, EU27, 2007



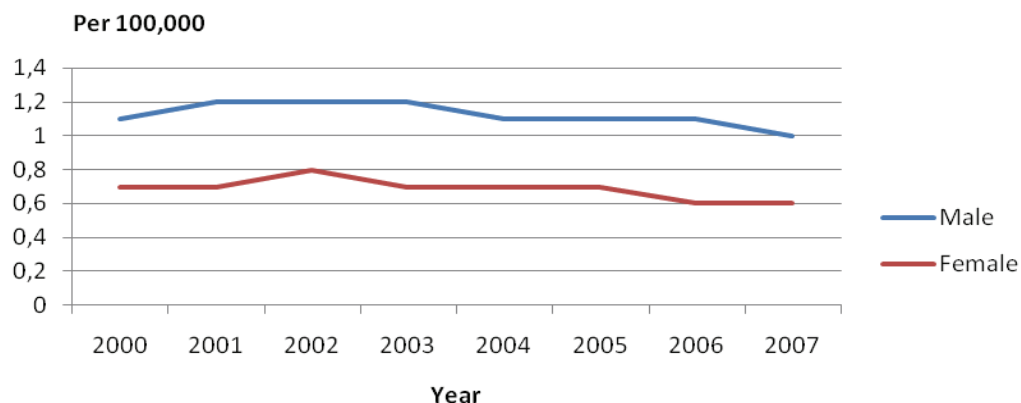
Source: Eurostat hlth_cd_acdr

2.7.8 Viral Hepatitis

There are a number of forms of hepatitis, namely those as a result of liver damage due to alcohol abuse, autoimmune diseases, as a result of damage caused by drug overdose or through bacterial or viral infection. Viral hepatitis has three main forms: Hepatitis A, Hepatitis B and Hepatitis C, which when combined comprise one of Eurostat's 65 causes of death (or external causes) classification groups (Viral hepatitis B15-B19). These diseases cause inflammation of the liver and have varying degrees of impact on the health of the individual, from acute to chronic and from mild to life threatening. Hepatitis A is transmitted through infected stools or contaminated food, Hepatitis B is transmitted through contact with an infected individual's blood or through direct contact with an infectious person and is common in migrants from countries where the condition is more commonplace (such as Asia and South East Asia), men who have sex with men, and drug users. Hepatitis C is spread by contact with contaminated blood and is most common in injecting drug users (IDUs).

Though the rate of death from viral hepatitis is decreasing across EU27 as a whole (Fig. 2.7.28) it remains an important cause of death for certain vulnerable groups.

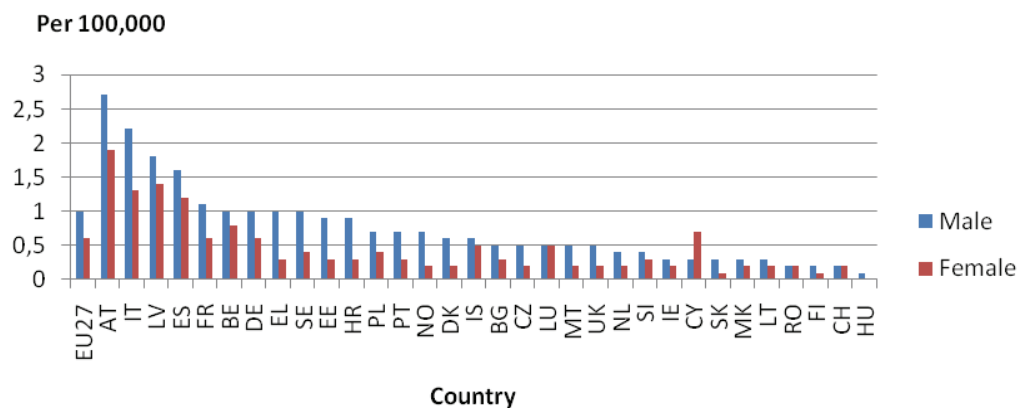
Fig. 2.7.28 Time trends in Viral hepatitis mortality, by sex, all ages, EU27, 2000–2007



Source: Eurostat hlth_cd_asdr

Viral hepatitis is a disease that affects more men than women: across all the countries with available data, men have a higher age standardised rate of death (Fig. 2.7.29).

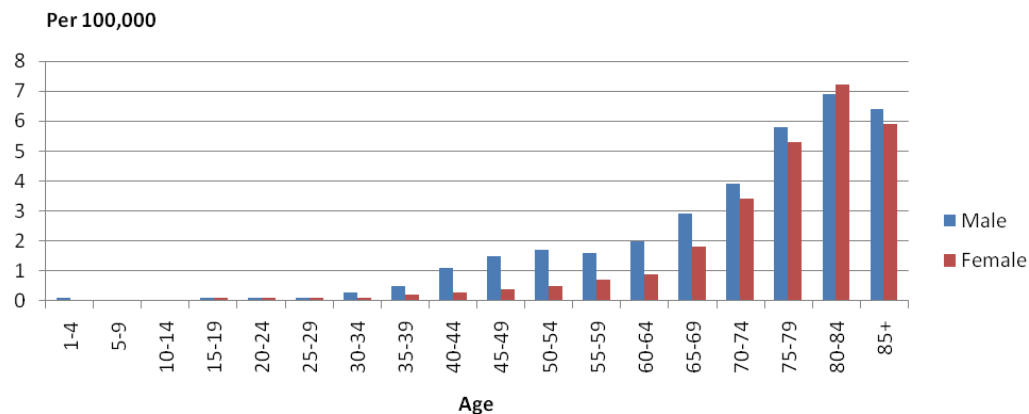
Fig. 2.7.29 Standardised death rates for Viral hepatitis, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, CY, EU27, FR, IS, IT, MT, PL, RO, SE, UK (2007). DK, PT (2006). LJ (2005). BE (2004)

There is a marked age effect with this disease, with rates rising more steeply in the over 65 age groups for both men and women (Fig. 2.7.30).

Fig. 2.7.30 Age specific death rates for Viral hepatitis, by sex, EU27, 2007



Source: Eurostat hlth_cd_acdr

2.7.9 References

- Bozicevic I, Rode OD, Lepej SZ et al., (2009) Prevalence of Sexually Transmitted Infections Among Men Who Have Sex with Men in Zagreb. *Croatia AIDS and Behavior* 13(2):303-309
- Corbett EL, Watt CJ, Walker, N et al., (2003) The Growing Burden of Tuberculosis: Global Trends and Interactions With the HIV Epidemic. *Archives of Internal Medicine* 163:1009-1021
- Davies PD (2001) Drug-resistant tuberculosis. *Journal of the Royal Society of Medicine* 94(6):261–263
- de Roux A, Cavalcanti M, Marcos, MA (2006) Impact of Alcohol Abuse in the Etiology and Severity of Community-Acquired Pneumonia. *CHEST* 129(5):1219-1225
- ECDC (2009) Technical Report Mapping of HIV/STI behavioural surveillance. Stockholm, ECDC
- ECDC (2008) WHO Regional Office for Europe. HIV/AIDS surveillance in Europe. Stockholm, ECDC
- ECDC (2007) The First European Communicable Disease Epidemiological Report. Stockholm, ECDC
- ESSTI (2008) Sexually Transmitted Infections in Europe. Annual Report No.3. London, Health Protection Agency
- Fenton K, Lowndes CM (2004) for the European Surveillance of Sexually Transmitted Infections (ESSTI) Network. Recent trends in the epidemiology of sexually transmitted infections in the European Union. *Sexually Transmitted Infections* 80:255-263.

- Kovacs EJ, Messingham KAN (2003) Influence of Alcohol and Gender on Immune Response National Institute on National Institute on Alcohol Abuse and Alcoholism (NIAAA) <http://pubs.niaaa.nih.gov/publications/arh26-4/257-263.htm> last accessed 19/11/10
- Stuckler D, Basu S, McKee M et al., (2008) Mass incarceration can explain population increases in TB and multidrug-resistant TB in European and central Asian communities. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* 105(36):13280-13285
- UNAIDS/WHO (2009) *Towards Universal Access: Scaling up priority HIV/AIDS interventions in the health sector - Progress Report*. Geneva, WHO
- WHO (2007) *Plan to stop TB in 18 high priority countries in the WHO European Region 2007-2015*. Copenhagen, WHO.

2.8 Dental and oral health

2.8.1 Main points

- Dental and oral ill-health are causes of many systemic diseases as well as being the source of marked discomfort to the individual.
- Dental caries and missing teeth are a bigger problem for women than men.
- Periodontal disease affects a significant proportion of the population and has a greater prevalence in men
- The older generations are more at risk, but obese young men are emerging as another at risk group.
- Strong links are evident between periodontal disease and cardio-vascular disease.

2.8.2 Summary

Dental and oral ill-health are a major cost to both the individual and the state. Women tend to have more problems with regards to dentition but men have the greatest need with regard to poor periodontal health, which, apart from being a cause of considerable pain and discomfort, is associated with cardiovascular disease and increasingly with metabolic syndrome in men. It is ironic that although men are less likely to use preventative dental services women have a higher incidence of dental caries.

The causes of periodontal disease are closely associated with risky male health behaviour but though this was once seen mainly as a problem of the older men it is now being increasingly seen in the young, especially those who are obese.

Whilst there are variations across the EU with regards to consultation with a dentist by educational level, periodontal disease can be prevented through changes in lifestyle behaviours. Improved oral care is a precursor to reducing the incidence of systemic diseases across the world and early health promoting strategies aimed at men would seem to hold great worth.

2.8.3 Introduction

The WHO define oral health as:

"being free of chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum)

disease, tooth decay and tooth loss, and other diseases and disorders that affect the mouth and oral cavity."

It is estimated that traditional treatment of oral disease is the fourth most expensive disease to treat in the industrialised world⁵⁰.

From Fig. 2.1.22 we have seen that men are more at risk of cancer of the lip, oral cavity and pharynx (C00-C14) and in addition there are some conditions that can both occur in the mouth and also aggravate or be caused by other serious health conditions in men. The WHO identify the most important risk factors for oral health problems to poor oral hygiene, tobacco use, excessive alcohol consumption, stress, and diabetes mellitus (Petersen & Ogawa, 2005) with many of these aggravating factors more prevalent in men.

Careful and regular oral hygiene can make significant differences in oral health and consequent systemic health, but evidence suggest that men are less effective in this regard than women and are less likely to use preventative dental services.

A set of global goals have been developed by the FDI, WHO and IADR, which give countries guidance as to what should be achieved by 2020, however there appears to be little in the way of information as to how those goals are to be achieved or what specifically needs to be considered in order to get men to become more aware of and responsive to their oral health needs.

The World Health Organisation has a specific programme dedicated to oral health⁵¹ and the World Oral Health Report (2003) was an important statement as to the need to take this area seriously. It is noticeable, however that men are only mentioned with regard to oral cancers and the term 'gender' only with respect to noting that health disparities exist (p16) and in relation to HIV/AIDS (p28). It is important to recognise the overall burden of oral ill health globally and more specifically the fundamental range of diseases and disorders that are enveloped within ICD10: K00-K14 (excluding neoplasms).

⁵⁰ http://www.who.int/oral_health/disease_burden/global/en/

⁵¹ <http://www.who.int/mediacentre/factsheets/fs318/en/index.html>

The WHO Global Oral Health Data Bank has a Community Periodontal Index system, which is complemented by The Periodontal Country Profile⁵², which forms part of the WHO Global Oral Data Bank. This database is hosted by the Niigata University in Japan and holds useful information on the extent of disease within collaborating countries, but unfortunately this data is not broken down by sex. This limits its usefulness in determining the gendered implications of this important condition.

2.8.4 Dental Caries

Within the WHO Oral Health Country / Area Profile Programme (CAPP) database⁵³ it is evident that dental caries is more prevalent in women than in men. This has been demonstrated in a number of other studies, including a national survey of Hungary (Madléna et al., 2008), Lithuanian children and adolescents (Aleksejuniene et al., 1996) a study of university clinic patients in Turkey (Demirci et al., 2010) and a detailed analysis of sex differences in dental caries (Lukacs, 2010). The reasons for women's higher rates of dental caries are not fully understood. A detailed analysis of the sex and gender differences concluded that this was a multifactorial issue with no one definitive answer but it is possible that different salivary composition and flow rate, hormonal fluctuations, dietary habits, genetic variations, and particular social roles among their family were associated with the increased risk for women (Ferraro & Vieira, 2010). Due to this increased risk women are more likely to wear a removable denture and to have lost more natural teeth (Eurobarometer, 2009).

2.8.5 Periodontal disease

Periodontal disease is a broad term encompassing a number of different conditions that can affect the mouth, but are separate from conditions affecting the teeth themselves.

Most often oral diseases are related to infections, with many factors influencing their ability to take hold and progress to advanced chronic conditions. These risk factors include both the local environment within the mouth and with the rapid rate of renewal needed for healthy gums any disease which compromises the bodies immune system (i.e. HIV/AIDS), repair system (i.e. poor diet) or alters the mouth environment (i.e. diabetes) can have significant impact on oral

⁵² <http://www.dent.niigata-u.ac.jp/prevent/perio/contents.html>

⁵³ <http://www.whocollab.od.mah.se/countriesalphab.html>

health. In addition there are a number of other important associated conditions that also have relevance to the higher prevalence this disease has in men.

2.8.5.1 Prevalence of periodontal disease

Periodontal disease tends to be more prevalent in men (Krustrup & Petersen, 2006, Taylor & Borgnakke, 2007, Shiau & Reynolds, 2010). The recent fourth German Dental Health Survey comprising a national cross-sectional survey conducted in 2005 included 925 adults (35–44 years) and 1040 seniors (65–74 years). They identified that the prevalence of periodontal disease was 70.9% and 87.4% in both age groups, with 25% and 50% presented severe form, respectively, with men and those from East Germany having significantly higher prevalence.

There is some debate as to whether ethnicity / race has an effect on vulnerability to periodontal disease. A study by Craig et al., (2003) with Asian-, Hispanic- and African-Americans found that belonging to an “unskilled” occupational group and having other recognised risk factors i.e. smoking had more of an effect than their ethnicity/race.

Dental problems are more prevalent in under-privileged groups – socio-behavioural and environmental factors. A study exploring the relationship between socioeconomic disadvantage and periodontal disease found the lower the income bracket and the lower the educational attainment the worse the periodontal disease (Borrell et al., 2006). In their study sample they found that 21.1% of their white male participants had severe periodontitis as compared with 11.9% of white women, with African American men having nearly three times the likelihood of having the disease (33% and 11.6% respectively).

A study in Japan identified that age, sex (male), body mass index (BMI), mean blood pressure (mBP), and fasting plasma glucose ($p < 0.01$) were the variables significantly associated with the prevalence of periodontal disease (Hasegawa & Watase, 2004).

Age is an important factor, with older men having more oral health problems than younger men, but younger men and boys still having more signs of poor hygiene than girls. Two Swedish studies identified that adolescent boys had a higher prevalence of plaque and gingivitis than similar aged girls (Ericsson, 2009, Abrahamsson et al., 2006).

Periodontal disease prevalence and severity has usually been associated with the older rather than the younger generations (Petersen & Ogawa, 2005), however there is a growing number of younger people affected and this is being linked to obesity. The prevalence of periodontal disease among obese individuals is an emerging and important issue for the younger generation (Al-Zahrani, 2003). Periodontal disease in young adults aged 18-34 years was 76% higher than in a control normal weight group of the same age. Young subjects with high waist circumference had an increased risk for having periodontal disease. Research into dietary trends in adolescents ages 11 to 18 reveal a significant decrease in raw fruit and non-potato vegetables, which are sources of vitamin C. In addition, adolescents have decreased their calcium intake, and increased their intake of soft drinks and non-citrus juices (El-Sayed Amin, 2010).

2.8.5.2 Health implications of periodontal disease

Periodontal disease has been implicated in the development of atherosclerosis. In a Belgium study 91% of patients with cardiovascular disease were found to be suffering from moderate to severe periodontitis, while this proportion was 66% in the non-cardiac patients. One possible mechanism is that periodontal pathogens themselves cause atherosclerosis as a result of artery cell wall damage or that periodontal infections could increase inflammatory responses resulting in an increased risk of coagulating thrombocytes and the production of atheromatous plaques (Geerts et al., 2004). A study from America, found in males, and not females, with periodontal disease a 10% difference in carotid artery plaque prevalence in a random population sample of previously well individuals. They found that between the genders carotid plaque prevalence differed by 10%, 15%, and 25% across increasing levels of tooth loss, and by 5%, 15%, and 25% across increasing levels of long-term periodontitis (Desvarieux et al., 2004).

A more recent study in Sweden found that increasing periodontal disease was also significantly associated with hypertension and in the middle aged with myocardial infarction (Holmlund et al., 2008). In addition a study based in the Province of Pomerania found an inverse association between the number of teeth and systolic blood pressure and hypertension in men but not in women (Völzke et al., 2006).

A further explanation could come from the possible association between periodontal disease and the metabolic syndrome, which is becoming more prevalent in men through their tendency to have central visceral obesity (see section 1.2 obesity). A study in Japan found that Body mass index, blood pressure, triglycerides, fasting blood glucose, and hemoglobin A1c (HbA1c) were significantly elevated in their sample of factory workers with periodontal pockets of 4 mm or more (Morita et al., 2009). It has been suggested that both the identification of periodontal disease may be used as a marker of the metabolic syndrome and that improved oral health care in those with the metabolic syndrome may help to reduce the incidence of various systemic diseases (Dumitrescu et al., 2008).

There are a number of oral conditions that are linked to HIV/AIDS. A study in Spain found that oral candidosis was highly predictive of immune failure on those receiving highly active antiretroviral therapy (91% for men who have sex with men, 96% for heterosexuals, and 96% for intravenous drug users) (Gaitán-Cepeda et al., 2005). It may also be an important sign of patient non-adherence to therapy (Egusa et al., 2008). However, studies are not yet available to show if this is more prevalent in men.

Sufficiently high Vitamin D levels and calcium intake are required for periodontal health (Hildebolt, 2005) and though data is not available on the impact of deficiencies our section on diet highlight that few men in Europe are meeting the recommended daily intake (see section 1.4.9 diet).

There is a suggestion that there may be an association between ED and chronic periodontal disease (CPD) through a small scale study which found a significant correlation between young men with ED and CPD. This was assumed to be due to the sharing of the characteristics of systemic inflammation, endothelial dysfunction and atherosclerosis (Zadic et al., 2008).

Austria and Lithuania have a significantly higher admission rate. Given that health behaviours continue in adulthood lack of action in early years have long term implications such that the absence of a targeted health prevention or promotion strategy or lack of adherence to the WHO goals may be significant.

2.8.6 Oral health care

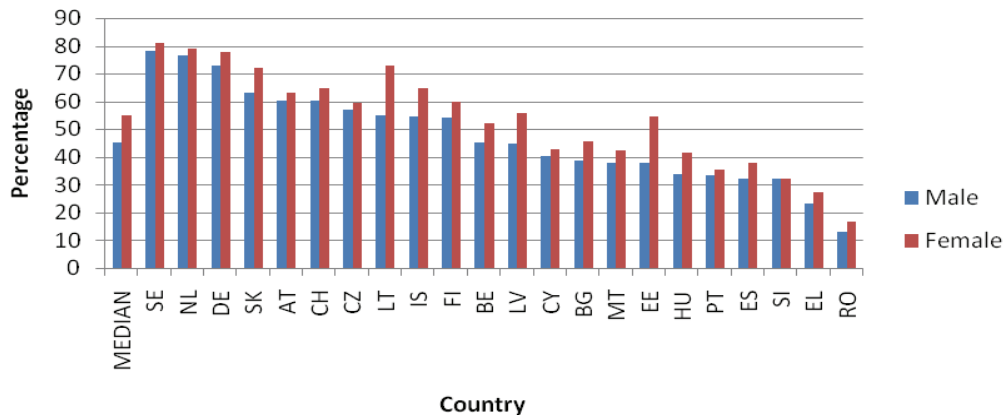
In a Swedish study girls scored more favourably on behavioural measures, showed more interest in oral health, and perceived their own oral health to be good to a higher degree than did boys (Östberg et al., 1999). A large scale study of the Danish adult population found that women were more likely to clean their teeth, use toothpicks, and have regular dental check-ups and take better care of dentures (Christensen et al., 2003). A similar conclusion that men are less likely to have good oral hygiene was found in a German study (Wolf et al., 2001). In a study of oral hygiene over the age span a Welsh study found that females had less plaque and gingivitis than men as a result of better oral hygiene, with some improvement in oral care between adolescence and adulthood (Hunter et al., 2007). A study from Sweden found the strongest predictor of poor oral health behaviour (tooth brushing less than twice a day) was male gender (Källestål et al., 2006).

A UK based study on gender variations in the social impact of oral health found that “Women perceived oral health as having a greater impact than men on their quality of life in general, having a greater negative impact and a greater positive impact. Specifically women perceived oral health as causing them more pain, embarrassment and being detrimental to their finances compared to men. Women also more frequently perceived oral health as enhancing their life quality, their moods, their appearance and their general well being than men” (McGrath, 2000 p 87). This increased embarrassment by mouth or dental problems in women was also found by the recent Eurobarometer study on oral health (Eurobarometer, 2009).

A longitudinal study of male Danish conscripts identified that poor compliance with regular flossing/toothpick use resulted in worsening of existing lesions, with 57% of cases requiring fillings (Martignon et al., 2010).

Women are more likely to visit a dentist. The median percentage number of men who had made a consultation with a dentist in the previous year was 45% as compared to 55% for women. The Eurobarometer (2009) oral health study found women were also more likely to have made a preventative visit. There are marked differences between the countries with only 13% of Romanian men having had a visit to the dentist as compared to 78% of men in Sweden (Fig. 2.8.1).

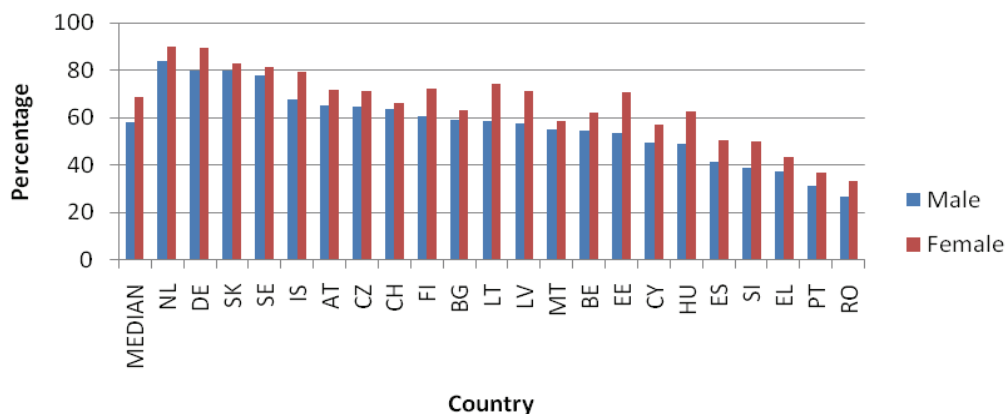
Fig. 2.8.1 Consultation with a dentist during the previous 12 months, by sex and country, 2004



Source: Eurostat hlth_co_dente

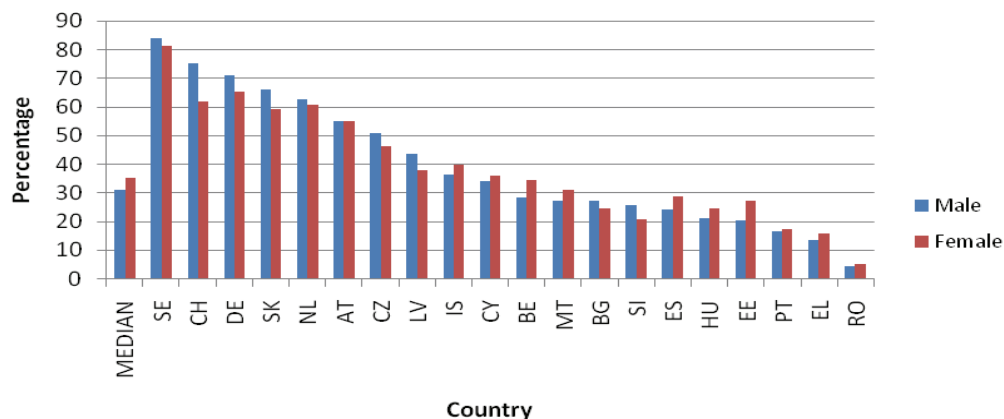
With regard to consultation with a dentist by educational level, there is still a marked difference between the countries, with only 27% of the most educated men (and 33% of women) in Romania accessing services. For men who have only the most basic education this level drops to 4.4% of men and 5.4% of women (Fig. 2.8.2 and Fig. 2.8.3). What is interesting to note is that when educational level is considered, there is a tendency for more educated women to use the dental services than men, however in those with lower education attainment this picture is reversed in many countries.

Fig. 2.8.2 Consultation with a dentist, Post-secondary non-tertiary and tertiary education, by sex and country, 2004



Source: Eurostat hlth_co_dente

Fig. 2.8.3 Consultation with a dentist, Pre-primary, primary education or first stage of basic education, by sex and country, 2004



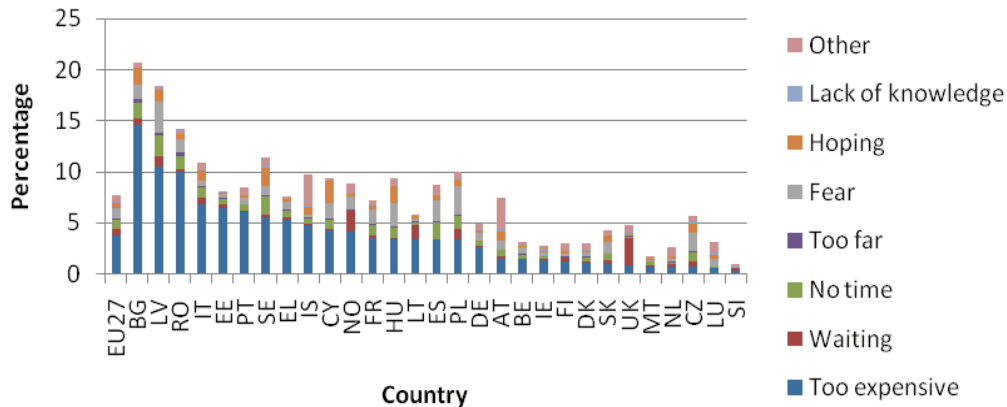
Source: Eurostat hlth_co_dente

The reasons why the men had unmet dental needs was assessed through the European Statistics of Income and Living Condition (EU-SILC) survey against a number of different options:

- Other reasons
- Lack of knowledge of good dentist
- Hoping - Wanted to wait and see if problem got better on its own
- Fear of doctor, hospital, examination or treatment
- Too far to travel
- No time
- Waiting list
- Too expensive

The main reason given was cost, but this was not the case in all the countries, with some countries such as the UK, the Czech Republic, Austria and Luxembourg having this as a minority issue (Fig. 2.8.4). Different countries' dental practices are revealed by the high number of men in the UK putting being on a waiting list as a key consideration. Fear of the treatment also comes across in a number of countries as an issue, as does having no time to attend for consultation.

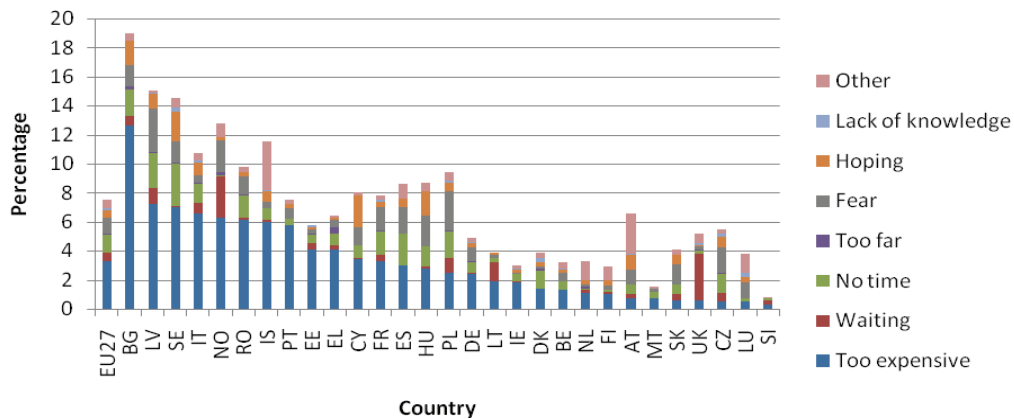
Fig. 2.8.4 Reasons for unmet dental needs, male, by country, all income quartiles, 2008



Source: Eurostat hlth_silc_09

When these figures are broken down by age (Fig. 2.8.5) we see that across all the income groups expense and a feeling of lack of time predominates in the younger age band (18-44 years).

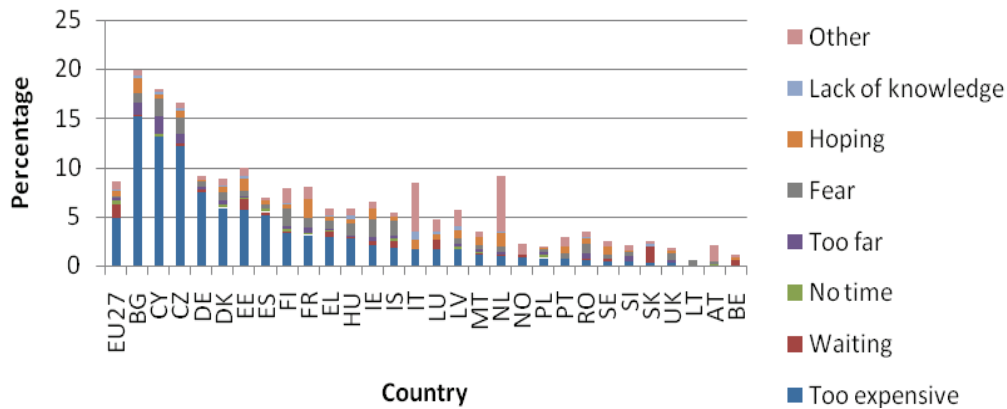
Fig. 2.8.5 Reasons for unmet dental needs, male, by country, ages 18-44 years, all income quartiles, 2008



Source: Eurostat hlth_silc_09

In the older age bracket we are still seeing cost as coming through as one of the main problems, with lack of time becoming a less relevant part of this delay (Fig. 2.8.6).

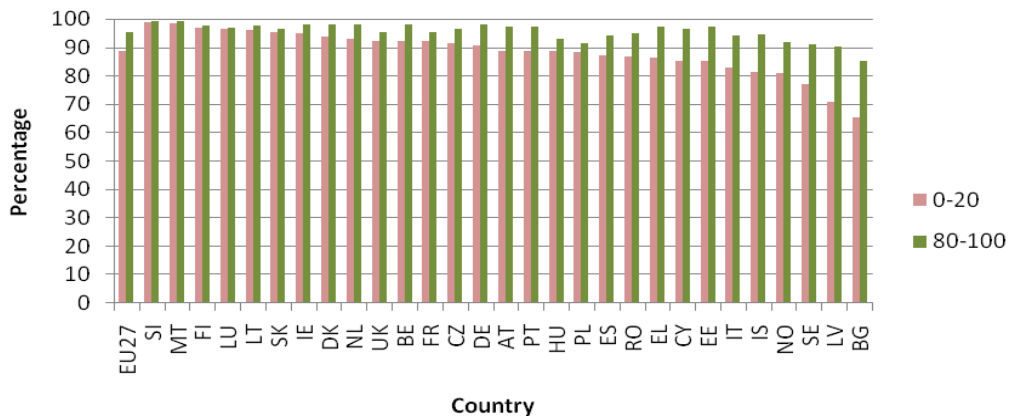
Fig. 2.8.6 Reasons for unmet dental need, male, by country, ages 65+ years, all income quartiles, 2008



Source: Eurostat hlth_silc_09

Comparison between the highest and lowest income quartile for having unmet dental needs suggests that in some countries there are no barriers to services, but in others a more marked inequality exists, with Bulgaria having a 20% difference between the rich and the poor (Fig. 2.8.7).

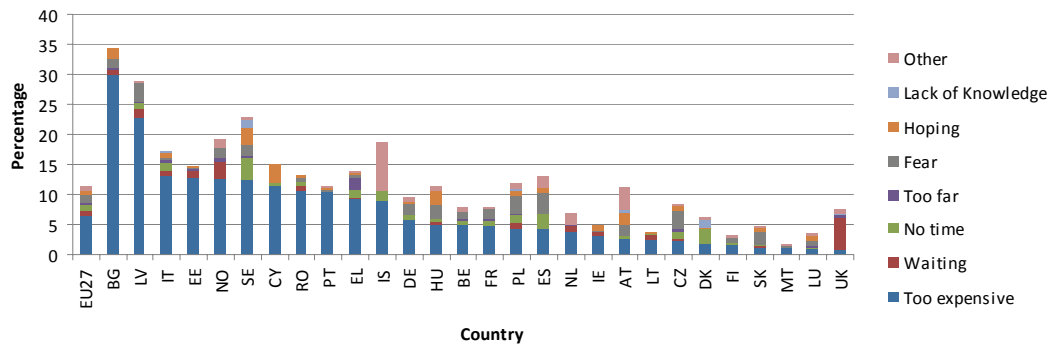
Fig. 2.8.7 No unmet dental need, male, by country, lowest & highest income quartile, 2008



Source: Eurostat hlth_silc_09

When the explanation for why the men have unmet needs different pictures emerge for the different age and income groups (Fig. 2.8.8). In the lowest income quartile the major reason of unmet dental needs in young men (aged 18-44 years) was that it was too expensive in the majority of countries. Though other causes, such as fear of the dentist / treatment, too far to travel, or lack of time were evident it was the cost that was the major barrier.

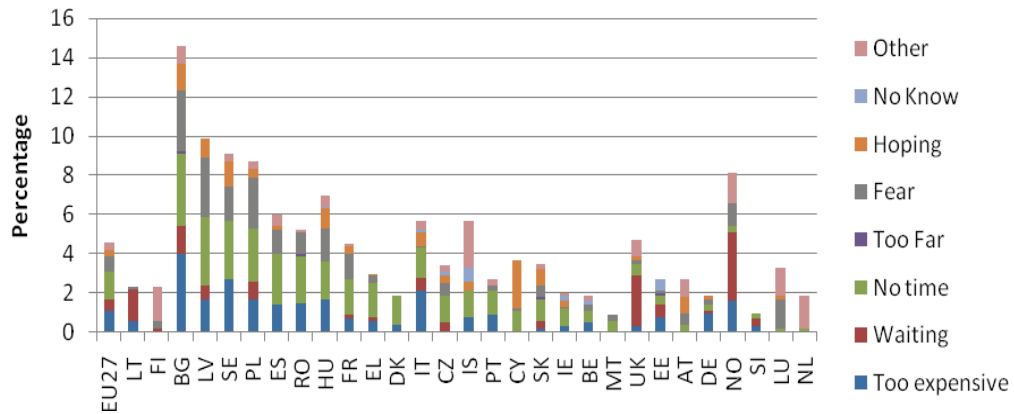
Fig. 2.8.8 Reasons for unmet dental need, male, by country, ages 18-44 years, lowest income quartile, 2008



Source: Eurostat hlth_silc_09

When men in the highest income quartile were asked the same question it produced a more diverse response, but lack of time had greater prominence, as did fear of the treatment or dentist (Fig. 2.8.9). Cost was still an issue for some.

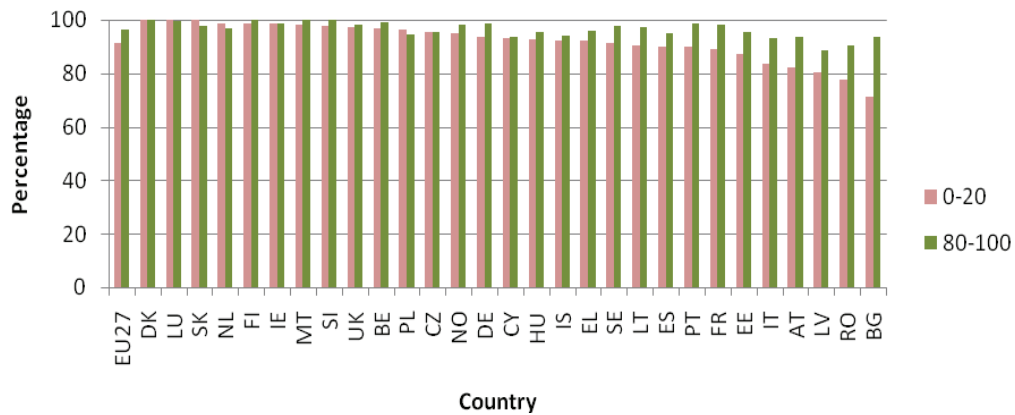
Fig. 2.8.9 Reasons for unmet dental need, male, by country, ages 18-44 years, highest income quartile, 2008



Source: Eurostat hlth_silc_09

In the older age bracket (65+ years), there were less men that felt that they had un-met needs, with Bulgaria having the biggest gap between the rich and the poor (22% difference)(Fig. 2.8.10).

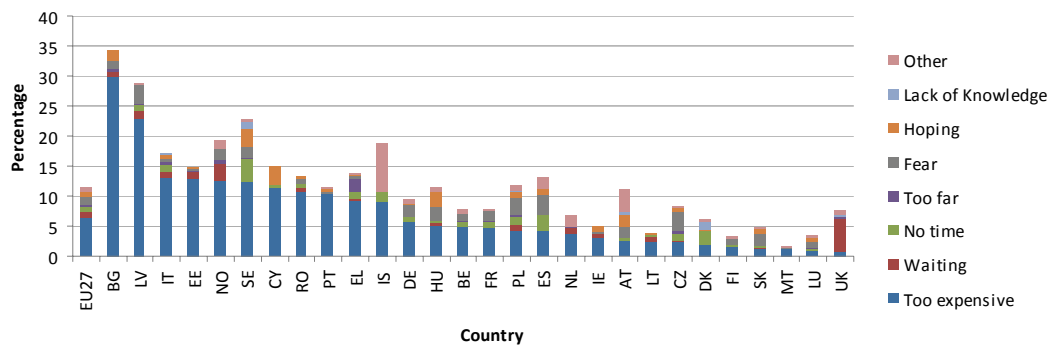
Fig. 2.8.10 No unmet dental need, male, by country, ages 65+ years, lowest & highest income quartile 2008



Source: Eurostat hlth_silc_09

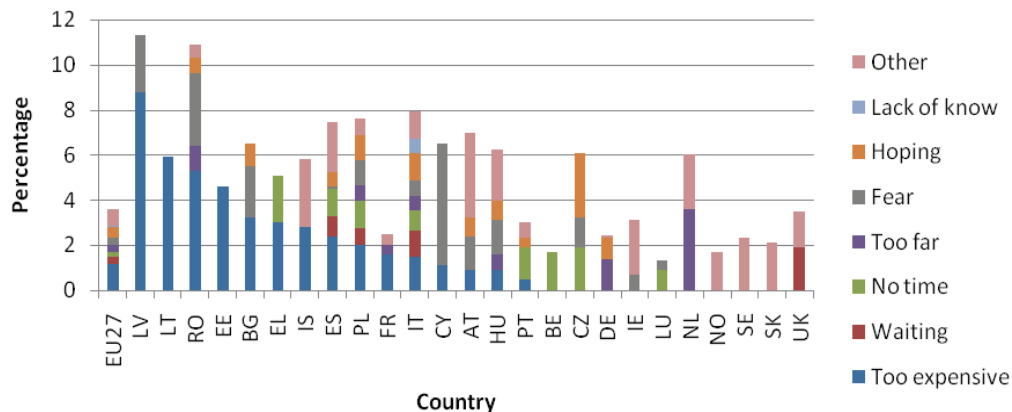
Comparison between the reasons why there were unmet needs differed between those in the highest and lowest income bracket, with expense the predominate reason in the poorer men and a broader more diverse set of reasons for the men in the higher income quartile (Fig. 2.8.11 & Fig. 2.8.12).

Fig. 2.8.11 Reasons for unmet dental need, male, by country, ages 65+ years, lowest income quartile, 2008



Source: Eurostat hlth_silc_09

Fig. 2.8.12 Reasons for unmet dental need, male, by country, ages 65+ years, highest income quartile, 2008



Source: Eurostat hlth_silc_09

2.8.7 References

- Al-Zahrani MS, Bissada NF, Borawski EA (2003) Obesity and Periodontal Disease in Young, Middle-Aged, and Older Adults. *Journal of Periodontology* 74(5):610-615
- Aleksejuniene J, Holst D, Balciuniene I (2000) Pattern of dental caries and treatment experience in elderly Lithuanians. *Gerodontology* 17:77-86
- Abrahamsson KH, Koch G, Norderyd O et al., (2006) Periodontal conditions in a Swedish city population of adolescents: a cross-sectional study. *Swedish Dental Journal* 30(1):25-34
- Borrell LN, Beck JD, Heiss G (2006) Socioeconomic Disadvantage and Periodontal Disease: The Dental Atherosclerosis Risk in Communities Study. *American Journal of Public Health* 96(2):332-339
- Craig R, Yip J, Mijares D et al., (2003) Progression of destructive periodontal diseases in three urban minority populations: role of clinical and demographic factors *Journal of Clinical Periodontology* 30(12):1075-1083
- Christensen LB, Petersen PE, Krustrup U, et al., (2003) Self-reported oral hygiene practices among adults in Denmark. *Community Dental Health* 20(4):229-235
- Demirci M, Tuncer S, Yuceokur AA (2010) Prevalence of caries on individual tooth surfaces and its distribution by age and gender in university clinic patients. *European Journal of Dentistry* 4(3):270-279
- De Roux A, Cavalcanti M, Marcos MA et al., (2006) Impact of alcohol abuse in the aetiology and severity of community-acquired pneumonia. *Chest* 129(5):1219-25

- Desvarieux M, Schwahn C, Völzke H et al., (2004) Gender differences in the relationship between periodontal disease, tooth loss, and atherosclerosis. *Stroke* 35(9):2029-2035
- Dumitrescu AL, Zetu L, Teslaru S (2008) Metabolic syndrome and periodontal diseases. *Romanian Journal of Internal Medicine* 46(3):207-212
- El-Sayed Amin, H (2010) Relationship between overall and abdominal obesity and periodontal disease among young adults WHO Eastern Mediterranean Health Journal 16(4):429-433
- Ericsson JS, Abrahamsson KH, Ostberg AL et al., (2009) Periodontal health status in Swedish adolescents: an epidemiological, cross-sectional study. *Swedish Dental Journal* 33(3):131-139
- Egusa H, Soysa NS, Ellepola AN et al., (2008) Oral candidosis in HIV-infected patients. *Current HIV Research* 6(6):485-499
- Eurobarometer (2010) Oral Health. Special Eurobarometer 330 Available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_330_en.pdf Last accessed 19/11/
- Ferraro M, Vieira AR (2010) Explaining Gender Differences in Caries: A Multifactorial Approach to a Multifactorial Disease. *International Journal of Dentistry*, doi: 10.1155/2010/649643
- Gaitán-Cepeda LA, Martínez-González M, Ceballos-Salobrea A (2005) Oral candidosis as a clinical marker of immune failure in patients with HIV/AIDS on HAART. *AIDS Patient Care & STDs* 19(2):70-77
- Geerts SO, Legrand V, Charpentier J et al., (2004) Further Evidence of the Association Between Periodontal Conditions and Coronary Artery Disease. *Journal of Periodontology*, 75(9):1274-1280
- Hobdell M, Petersen PE, Clarkson J et al., (2003) Global Goals for oral health 2020: *International Dental Journal* 53:285–288
- Hasegawa T, Watase H (2004) Multiple risk factors and periodontal disease. *International Medical Journal* 11(1):13-18
- Hildebolt CF (2005) Effect of Vitamin D and Calcium on Periodontitis. *Journal of Periodontology* 76(9):1576-1587
- Holmlund A, Holm G, Lind L (2006) Severity of periodontal disease and number of remaining teeth are related to the prevalence of myocardial infarction and hypertension in a study based on 4,254 subjects. *Journal of Periodontology* 77(7):1173-1178
- Hunter ML, Newcombe R, Richmond S et al., (2007) The Cardiff dental survey: oral hygiene and gingival health between the ages of 11-12 and 30-31 years. *British Dental Journal* 203(11):E23-E23

- Kallestal C, Dahlgren L, Stenlund H (2006) Oral health behaviour and self-esteem in Swedish adolescents over four years. *Journal of Adolescent Health* 38(5):583-590
- Krustrup U, Erik Petersen P (2006) Periodontal conditions in 35-44 and 65-74-year-old adults in Denmark. *Acta Odontologica Scandinavica* 64(2):65-73
- Lukacs J (2010) Sex differences in dental caries experience: clinical evidence, complex etiology. *Clinical Oral Investigations* 1-8
- Madlena M, Hermann P, Jahn M et al., (2008) Caries prevalence and tooth loss in Hungarian adult population: results of a national survey. *BMC Public Health* 8(1):364
- Marques M T-P, Costa-Pereira A, Da Eriksen HM (2000) Prevalence and determinants of periodontal disease in Portuguese adults: results from a multifactorial approach. *Acta Odontologica Scandinavica* 58(5):201-206
- Martignon S, Chavarría N, Ekstrand KR (2010) Caries status and proximal lesion behaviour during a 6-year period in young adult Danes: an epidemiological investigation. *Clinical Oral Investigations* 14(4):383-390
- McGrath C, Bedi R (2000) Gender variations in the social impact of oral health. *J Ir Dent Assoc* 46(3):87-91
- Morita T, Ogawa Y, Takada K et al., (2009) Association between periodontal disease and metabolic syndrome. *Journal of Public Health Dentistry* 69(4):248-253
- Östberg AL, Halling A, Lindblad U (1999) Gender differences in knowledge, attitude, behaviour and perceived oral health among adolescents. *Acta Odontologica Scandinavica* 57(4):231-236
- Petersen PE (2005) Priorities for research for oral health in the 21st century-the approach of the WHO Global Oral Health Programme. *Community dental health* 22(2):71-74
- Petersen P & Ogawa H (2005) Strengthening the prevention of periodontal disease: the WHO approach. *J Periodontal* 76(12):2187-2193
- Shiau HJ & Reynolds MA (2010) Sex Differences in Destructive Periodontal Disease: A Systematic Review. *Journal of Periodontology* online 81(10):1379-1389 available at <http://www.joponline.org/doi/abs/10.1902/jop.2010.100044?journalCode=jop> last accessed 19/11/10
- Taylor G & Borgnakke W (2007) Self-reported periodontal disease: validation in an epidemiological survey. *Journal of Periodontology* 78(7Suppl):1407-1420
- The status of health in the European Union: Towards a healthier Europe. Available at:

- http://www.eugloreh.it/ActionPagina_993.do Last accessed 19/11/10
- Völzke H, Schwahn C, Dörr M et al., (2006) Gender differences in the relation between number of teeth and systolic blood pressure. *Journal of Hypertension* 24(7):1257-1263
- Wolf BH, Rieger C, Boening KW et al., (2001) Multivariate analysis of oral hygiene data from a representative sample. *Journal of Clinical Periodontology* 28(9):891-894
- WHO (2003) The World Oral Health Report 2003. Geneva. WHO. Available at: http://www.who.int/oral_health/media/en/orh_report03_en.pdf last accessed 19/11/10
- Zaborskis A & Lenciauskiene I (2006) Health behaviour among Lithuania's adolescents in context of European Union. *Croatian Medical Journal* 47(2):335-343
- Zadik Y, Bechor R, Galor S et al., (2009) Erectile Dysfunction Might Be Associated With Chronic Periodontal Disease: Two Ends of the Cardiovascular Spectrum. *Journal of Sexual Medicine* 6(4):1111-1116

2.9 Other health conditions affecting men

2.9.1 Main points

- Type 2 diabetes is increasing in men as a result of obesity. The death rate in men is twice that of women in those under the age of 65 years, and across Europe men have higher admission rates for diabetes.
- Obese diabetics have a 40-60% higher risk of cardiovascular mortality.
- Across Europe there are higher levels of chronic lower respiratory diseases in men than women. Around 4% of all male deaths result from this condition, which is mainly caused by smoking.
- Osteoporosis is traditionally seen as a problem of older women. There are however problems of low bone density in young male athletes, men with specific health problems and hereditary factors. A growing number of men develop the condition as a result of hormone ablation therapy for prostate cancer.

2.9.2 Summary

This section was not meant to be totally inclusive of all those conditions that can be seen to have a sex difference or gendered component to them but rather it highlights that many health issues require interrogation as targeted health interventions to men would reduce chronic illness, disability and premature mortality. The mortality data for diabetes masks the true extent of its influence on the overall health of the population as it is the fourth leading cause of death in the EU.

Type II diabetes, once only seen in adults, is being diagnosed in younger populations and is associated with obesity. With the link between male form of central obesity and the metabolic syndrome and other health conditions this is a major cause of premature death as a result of cardiovascular disease. With chronic lower respiratory diseases it is noticeable that the Eastern European countries have a lower percentage of total deaths despite having higher levels of smoking than Western Europe. This may be explained by higher mortality levels of cardiovascular disease in Eastern Europe. Osteoporosis once seen as a problem for post menopausal women is also prevalent in men.

2.9.3 Introduction

There are a number of health conditions that can be seen to have a gendered component, through men being more liable to die prematurely (for example Diabetes), their lifestyle makes them more likely to contract the disease (Chronic lower respiratory disease), or they tend to be seen as a condition that specifically affects one sex whilst having a marked effect on the other (i.e. osteoporosis). Within this section a sample of these conditions will be considered, with the implication being that there will be other health conditions that may also be influenced by the sex and gender of the individual and that we should include an analysis of any potential sex or gender effects.

Tackling the impact of non-communicable diseases and their related health inequalities is one of the major public health challenges facing Europe (Makara & Titstakis, 2009). The raft of policy directives that are emerging with regard to these conditions are noticeable in their absence of any recognition of a gendered component either to their development or their management. As the population ages we need a population entering older age in better health to meet both the aspirations of the Lisbon Treaty and to ensure that our population enjoys a long and fruitful life. To this end more focused activity both on early management of the causes of ill-health and the more pro-active management of emerging problems would seem timely.

2.9.4 Diabetes Mellitus Type II

The mortality data for diabetes masks the true extent of its influence on the overall health of the population, with it currently estimated to be the fourth leading cause of death in the EU (Mladovsky et al., 2009). In order to understand the reason for this disease's impact on overall mortality it is necessary to explore the nature of the illness and why men seem to be at risk of developing the condition and so are susceptible to its effects.

Diabetes Mellitus comes in two forms: Type I refers to that usually seen in younger children and those that have had their pancreas damaged and is associated with an absence of insulin and the need to have insulin injections to manage blood sugar levels. Type II was known as maturity onset diabetes and was associated with an inability to keep up with the body's demands for insulin and could be managed by stimulating further production by the pancreas by medication or through weight loss. Type II is now being seen in younger

populations so that even school children are now being diagnosed with the condition.

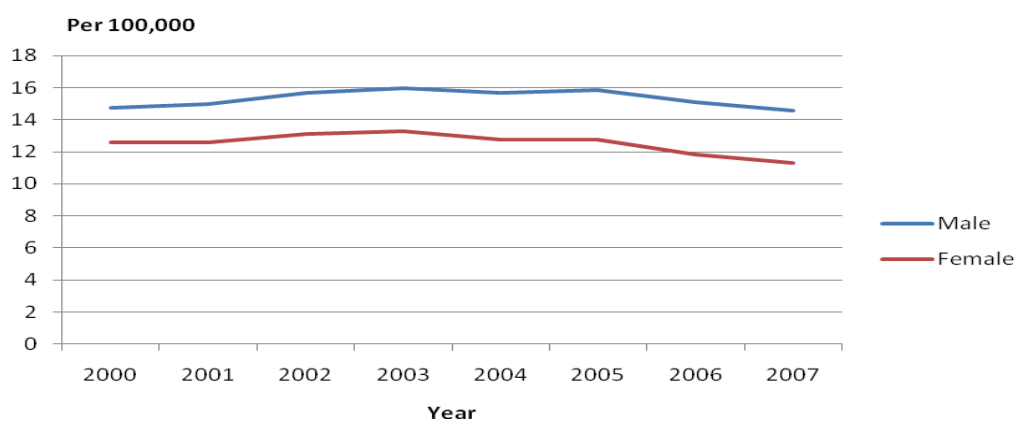
The health challenges that accompany this condition relate to the effect of high circulating levels of glucose resulting in damage to blood vessels, nerves and other organs, there are also health problems as a result of the body's response to low cellular glucose and the creation of alternative energy supplies. There are also a raft of problems caused by the lack or reduced availability of insulin itself on normal cellular function - such that insulin insensitivity is now seen as condition that needs to be identified in its own right.

There is a genetic link associated with diabetes, but the majority of the cases are due to amendable / avoidable causes, the most important of which is central (or visceral) obesity (with over 80% of people with Type II diabetes being overweight) and the development of the metabolic syndrome. This complex condition has insulin resistance as a principal component and in those with obesity the incidence of diabetes rises alongside the risk of developing the metabolic syndrome. This then significantly increases the risk of cardiovascular mortality. A study in Sweden found that in a in a large community-based sample of middle aged men, the presence of the metabolic syndrome increased the risk for total and cardiovascular mortality by 40-60%, when taking into account established risk factors for cardiovascular disease (Sundström, 2006). Lower levels of physiological tolerance to overweight in the South Asian population compound this risk and lead to a greater prevalence of diabetes within that community.

The estimation of the prevalence of diabetes is made complicated by the realisation that a significant number of people are unaware that they have the condition (estimated at over 50% (Mladovsky et al., 2009). The current estimate by the International Diabetes Federation (<http://www.idf.org/>) is that there are 285 million people around the world with diabetes with a projected rise to 438 million cases within 20 years. Current prevalence estimates for the EU are 9% of the population with a 10% increase expected over the next 20 yrs (ibid). There is a suggestion that men are more likely to remain undiagnosed for longer as a result of less frequent access of health services (see section on health service usage) (Coeli et al., 2009).

Although there are marked and important effects of diabetes on women's health (Legato et al., 2006), however deaths directly ascribed to diabetes are much more common in men. There has been little change in the overall rate of death from diabetes since 2000, with men consistently at about 15 deaths per 100,000 population and women at about 11-12 deaths per 100,000 population (Fig. 2.9.1).

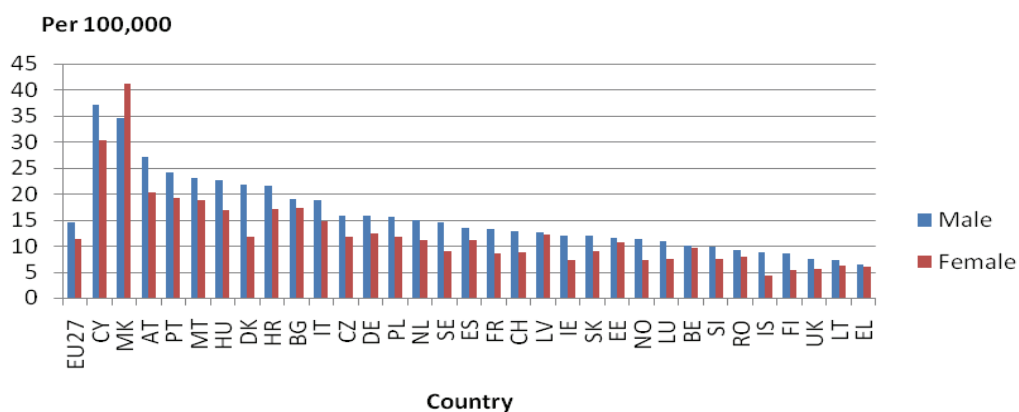
Fig. 2.9.1 Time trends in Diabetes mellitus mortality, by sex, EU27, 2000-2007



Source: Eurostat hlth_cd_asdr

The age standardised death rates cross Europe (Fig. 2.9.2) reflects this increased overall risk for men, with the only exception being The Former Yugoslav Republic of Macedonia.

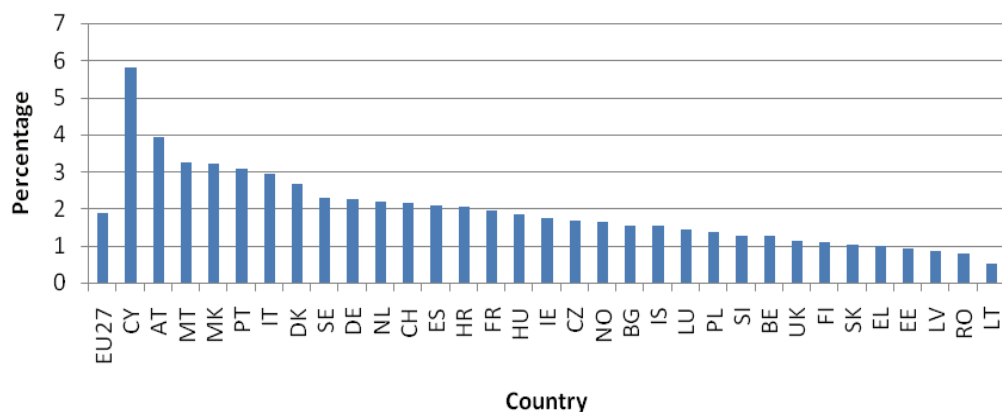
Fig. 2.9.2 Age standardised death rate for Diabetes mellitus, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004).

Diabetes, as an overall cause of death has a different impact across countries, ranging from nearly 6% of total male deaths in Cyprus to less than 0.5% in Lithuania. This disease accounts for 1.9% of total male deaths for the EU27 (Fig. 2.9.3), which is lower than the 2.5% of all female deaths for the same disease, showing that though more men have a higher rate of death in terms of both the total numbers dying from this disease and its overall impact on mortality women have the highest burden.

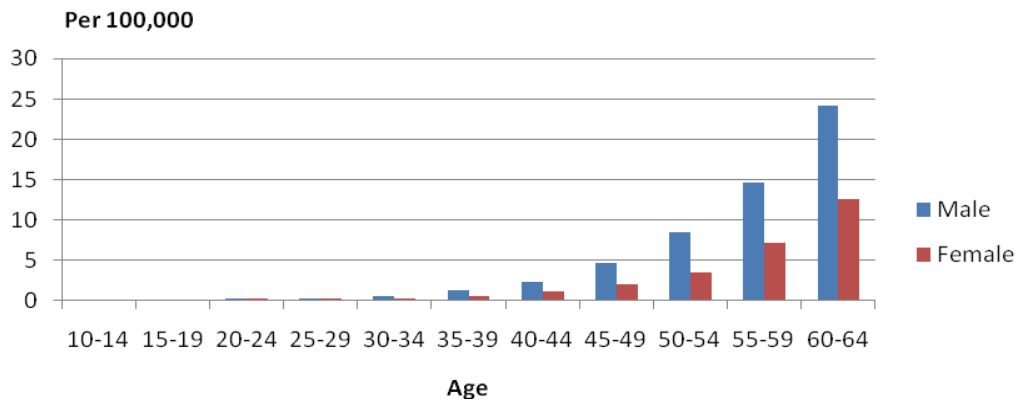
Fig. 2.9.3 Proportion of total male deaths as a result of Diabetes mellitus, by country, latest year¹



Eurostat database: hlth_cd_anr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE (2007). DK, LU, PT (2006). BE (2004)

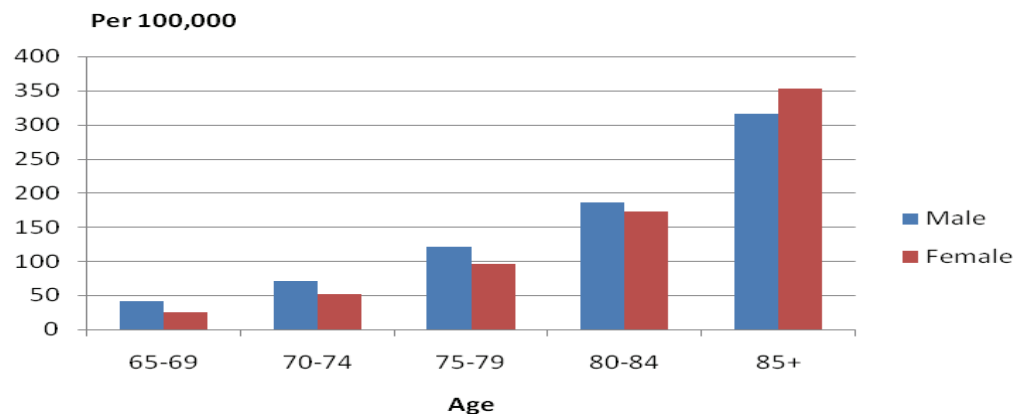
The impact of age on the rate of premature mortality, (Fig. 2.9.4 and Fig. 2.9.5), highlight, however, that there are nearly twice as many deaths in men under the age of 64 as compared to women across EU27 and this is also reflected in the numbers dying before the age of 64 (with some 2020 male deaths and 1027 female deaths across EU27 between 15 and 64 years of age). It should be noted that there is much more accuracy in the mortality figures under the age of 50 years as a result of diabetes, due to the complexity of multiple pathologies in the older age groups.

Fig. 2.9.4 Age specific death rates for Diabetes mellitus, by sex, ages 10-64 years, EU27, 2007



Source: Eurostat hlth_cd_acdr

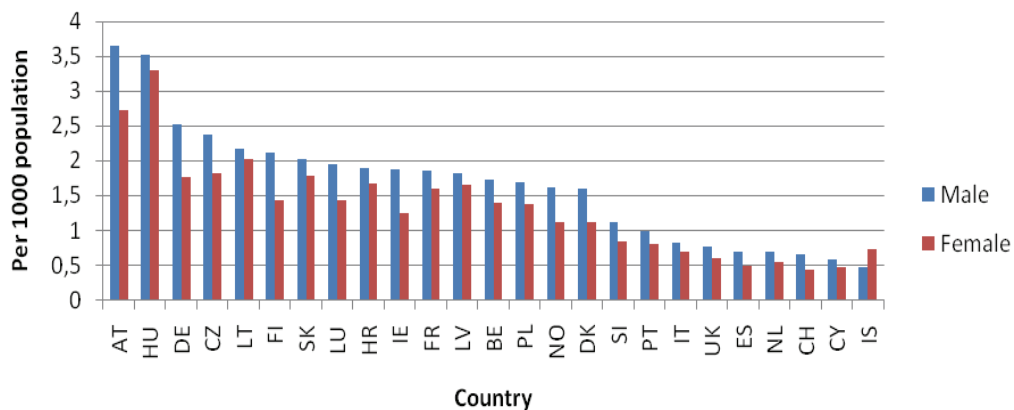
Fig. 2.9.5 Age specific death rates for Diabetes mellitus, by sex, ages 65+ years, EU27, 2007



Source: Eurostat hlth_cd_acdr

There is a higher rate of admission to hospital for men for all countries except Iceland, but large variations exist across the different countries (Fig. 2.9.6).

Fig. 2.9.6 Age standardised admission rates for Diabetes mellitus per 1,000 population, by sex and country, latest year¹



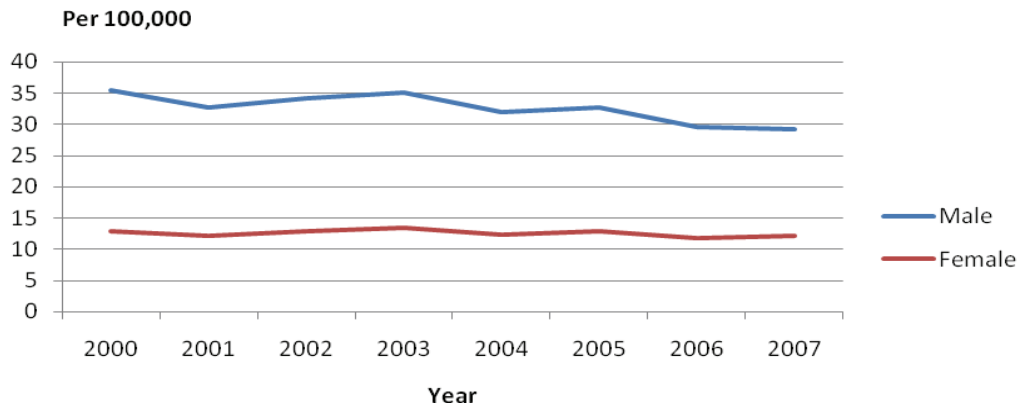
Source: HMDB. ¹ 2007 except LV, LT (2008). HR, DK, IS, IT (2006). NL, PT, ES (2005)

2.9.5 Chronic lower respiratory diseases

The broad category chronic lower respiratory diseases (CLRD) - consisting of bronchitis, emphysema, asthma, bronchiectasis, and other chronic obstructive pulmonary diseases - accounts for a significant degree of morbidity and mortality across Europe. Currently this condition causes more deaths in men than women, but it is likely that there will be increases in morbidity and premature mortality among women due to the increasing number of women smoking.

There are just over 29 per 100,000 deaths in men as a result of CLRD and 12 per 100,000 in women (Fig. 2.9.7). There has been a small but steady decline in the death rate from Chronic lower respiratory diseases since 2000 across EU27 as a whole (some 17% for men), but this decrease is not seen in all countries (Fig. 2.9.8).

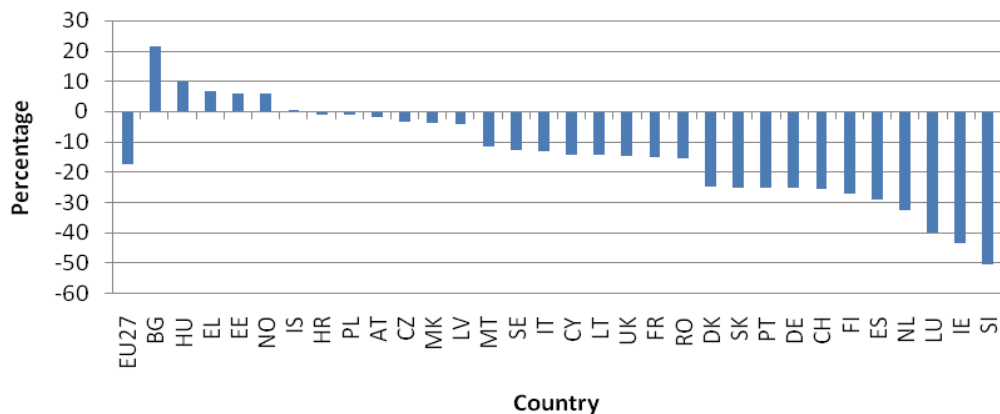
Fig. 2.9.7 Time trends in mortality due to Chronic lower respiratory diseases, by sex, EU27, 2000-2007



Source: Eurostat hlth_cd_asdr

Slovakia stands out as having a greater than 50% reduction in the rate of CLRD deaths, while Bulgaria saw a decrease from 2000-2004, but a subsequent 20% increase on their 2000-2004 rate.

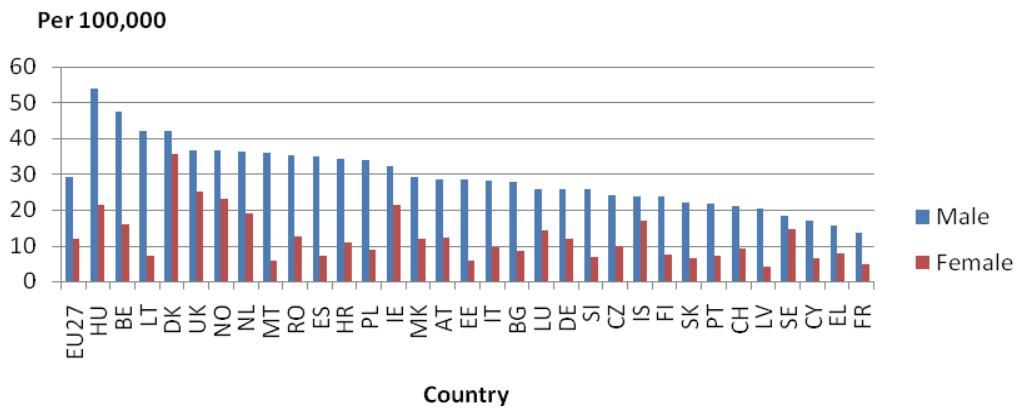
Fig. 2.9.8 Percentage change in age standardised death rates for Chronic lower respiratory diseases, 2000¹ to latest year²



Source: Eurostat hlth_cd_asdr. ¹ Except FR, 2001, ² 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006)

The highest rates of death are found in Hungary who have an age standardised mortality of 55 per 100,000 and Belgium with 48 per 100,000. These are a long way above the EU27 average of 29 per 100,000 and the 13.4 per 100,000 found in France (Fig. 2.9.9).

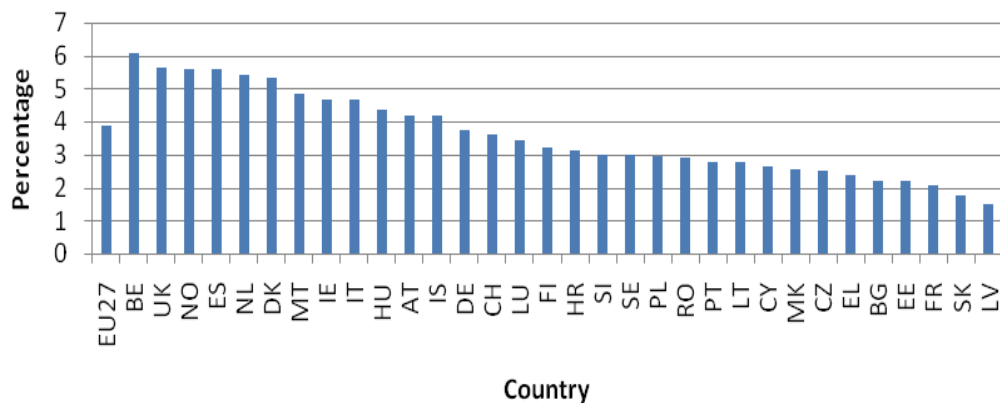
Fig. 2.9.9 Age standardised death rates for Chronic lower respiratory diseases, by sex and country, all ages, latest year¹



Source: Eurostat hlth_cd_asdr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE, UK (2007). DK, LU, PT (2006). BE (2004)

Overall CLRD accounts for just under 4% of all male deaths across the EU27, with this rising to just over 6% of all male deaths in Belgium. It is noticeable that the Eastern European countries have a lower percentage of their total deaths as a result of CLRD than many of the Western European countries despite their higher levels of smoking. This may be due to their higher levels of cardio-vascular death.

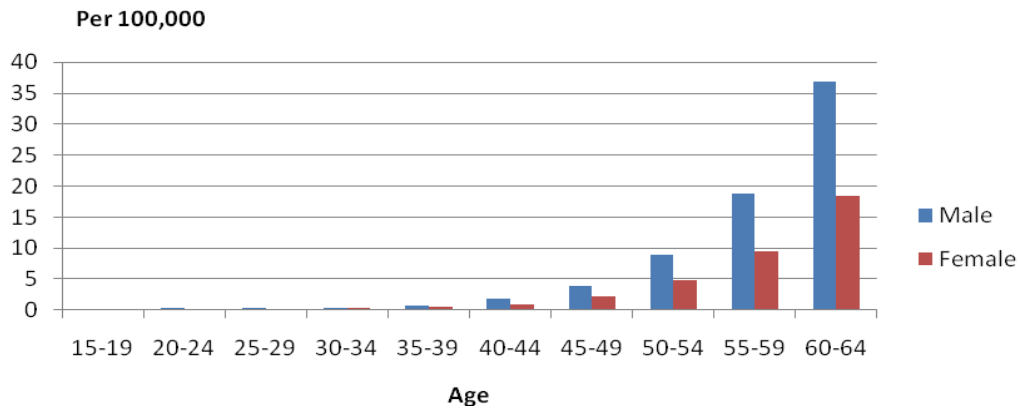
Fig. 2.9.10 Proportion of deaths from Chronic lower respiratory diseases by country against their total deaths, latest year¹



Source: Eurostat hlth_cd_anr. ¹ 2008 except BG, CH, EU27, FR, IT, MT, PL, RO, SE (2007). DK, LU, PT (2006). BE (2004)

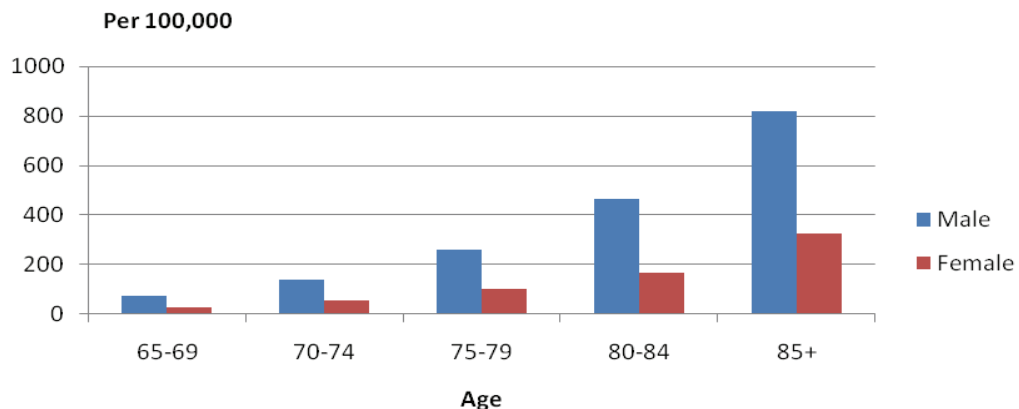
This is a condition that shows a higher rate of death in men across the age span (Fig. 2.9.11).

Fig. 2.9.11 Age specific death rates for Chronic lower respiratory diseases, by sex, ages 15-64 years, EU27, 2007



Source: Eurostat hlth_cd_acdr

Fig. 2.9.12 Age specific death rates for Chronic lower respiratory diseases, by sex, ages 65+ years, EU27, 2007



Source: Eurostat hlth_cd_acdr

2.9.6 Osteoporosis

Some conditions are more associated with a particular sex than others. Osteoporosis has always been seen as a problem of post menopausal women and rarely thought of as an issue for men. There is now a realisation that men have a significant risk of developing osteoporosis with some 20% of men over the age of 50 suffering fractures and disability as a result of this disease (Geusens & Dinant, 2007). A significant factor in the way the disease is perceived is that there is a risk that fractures will be misdiagnosed and under-treated leading to more severe forms of the disease.

Maximum bone density has to be attained by the age of 40 years and this is influenced both by sex and gender. The age of puberty is known to occur earlier in girls women than in boys such that the rate of bone deposition is higher in females, who reach peak bone mass faster than males. Bone deposition and bone health is also affected in males who experience premature bone loss as a result of regular and prolonged exercise coupled with poor diet (Stewart & Hannan, 2000).

Young men's increased bone density is also partly explained by the extent of their participation manual labour. However current demographic trends are suggesting that men are now more likely to be in similar jobs to women and have been found to be living more sedentary lives, which will decrease the rate of bone deposition and further add to the burden of the disease in later life.

Men's bone structure does put men at an advantage with regard to bone loss as a result of ageing, such that they tend to develop osteoporotic fractures some 10 years later than women. At this point, however, their clinical condition has usually also deteriorated, such that the morbidity and mortality associated with fractures and their (surgical) treatment is considerably greater than in women (Gooren, 2007), with one year mortality rate for men following hip fracture being twice that of women (Qaseem et al., 2008). Following a first fracture the risk of having a second is the same in men as it is in women. As already noted within the section on Accidents, Injuries and violence, even though there are more older women than men falling, men have a higher mortality as a result of falls.

The most significant predictors of risk in men developing osteoporosis are increasing age and low body mass (Liu et al., 2008a). The role of androgen deficiency (hypogonadism) (Zitzmann & Nieschlag, 2004, Lim, 2009) and the treatment of prostate cancer, which for many men involves androgen ablation therapy and which has an effect on oestrogen levels in men (Lee et al., 2005) are also major contributors to developing this condition. There are a number of other factors associated with the development of the disease in men, including hereditary (Naves et al., 2005), low body mass, weight loss, smoking, and physical inactivity (Bakhireva et al., 2004) and chronic alcoholism (Lim & Fitzpatrick, 2004).

A further important factor is that with women having increased screening opportunities, they more frequently come into contact with health professionals who can pick up emerging problems at an earlier stage. Health literature, and indeed general health messages about bone health, are often focused onto women, and may contribute to men's lack of awareness of the problem.

2.9.7 References

- Bakhireva LN, Barrett-Connor E, Kritz-Silverstein D et al., (2004) Modifiable predictors of bone loss in older men: a prospective study. *Am J Prev Med* 26: 436-42
- Coeli,CM, Faerstein E, Chor D et al., (2009) Gender differences in the socioeconomic gradient in self-reported diabetes: Does health service access play a role? *Diabetes Research & Clinical Practice* 86(2): 134-139
- Corbett EL, Watt CJ, Walker, N et al., (2003) The Growing Burden of Tuberculosis: Global Trends and Interactions With the HIV Epidemic. *Archives of Internal Medicine* 163: 1009-1021
- Geusens P & Dinant G (2007) Integrating a Gender Dimension into Osteoporosis and Fracture Risk Research. *Gender Medicine* 4 (supp.B): S147-S161
- Gooren L (2007) Osteoporosis and sex steroids. *The Journal of Men's Health & Gender* 4(2): 192-8
- Legato MJ, Gelzer A, Golland R et al., (2006) Gender-specific care of the patient with diabetes: review and recommendations. *Gender Medicine* 3(2): 131-158
- Lee H, McGovern K, Finkelstein JS et al., (2005) Changes in bone mineral density and body composition during initial and long term gonadotropin-releasing hormone agonist treatment for prostate carcinoma. *Cancer* 104(8): 1633-1637
- Lim LS, (2009) Osteoporosis in Men. In Kirby RS, Carson CC, White A, Kirby MG (Editors), *Men's Health*. 3rd Ed. London, Taylor & Francis
- Liu H, Paige NM, Goldzweig CI et al., (2008) Screening for Osteoporosis in Men: A Systematic Review for an American College of Physicians Guideline. *Annals of Internal Medicine* 148(9): 685-W138
- Makara P, Ritsatakis A (2009) Pointers to the future. In Ritsatakis A, Makara P (Eds) *Gaining Health: An analysis of policy development in European countries for tackling non-communicable diseases*. Copenhagen, WHO
- Mladovsky P, Allin S, Masseria C et al., (2009) Health in the European Union: Trends and analysis. *European Observatory on Health Systems and Policies. Observatory Studies Series No 19*. WHO, Copenhagen. ISBN 978 92 890 4190

- Naves M, Díaz-López JB, Gómez C et al., (2005) Prevalence of osteoporosis in men and determinants of changes in bone mass in a non-selected Spanish population. *Osteoporos Int* 16:603-9
- Qaseem A, Snow V, Shekelle P et al., (2008) Screening for Osteoporosis in Men: A Clinical Practice Guideline from the American College of Physicians. *Annals of Internal Medicine* 148(9):680-684
- Stewart AD, Hannan J (2000) Total and regional bone density in male runners, cyclists and controls. *Med. Sci. Sports Exerc* 32:1373-1377
- Sundström J, Risérus U, Byberg L et al., (2006) Clinical value of the metabolic syndrome for long term prediction of total and cardiovascular mortality: prospective, population based cohort study. *BMJ* 332:878-882
- Zitzmann M, Nieschlag E (2004) Androgens and bone metabolism in Nieschlag E, Behre HM (Eds) *Testosterone: action, deficiency and substitution*. 3rd Ed. Cambridge, Cambridge University Press

Epilogue

Men's health is complex and multifaceted, and it moves well beyond those male specific conditions resulting from men's differing biology with women.

Looking at the mortality and morbidity data through a 'gendered lens' has allowed fresh insights to be gained on key physical and mental health issues. A major observation from the report relates to the patterns emerging from the data that show marked differences between the health of men and women, and at the same time large disparities in health outcomes between men in different countries and within male populations in each Member State. This variability demonstrates clearly that men's health disadvantage is an issue of inequity and not biological inevitability and highlights the impact of the social environment in which men find themselves.

The extent and depth of the problem of premature mortality is one of the most striking and worrying findings, especially as it involves nearly the whole spectrum of health conditions. Men's greater risk of developing and dying from nearly all the cancers that, biologically, should affect men and women equally; the high rate of premature deaths from cardio-vascular disease; the increased risk from the major communicable diseases; the vulnerability of men to accidents, both in the workplace and at leisure; and men's high levels of suicide are but some of the life-limiting factors impacting on men which lead to such a high number of early deaths.

The marked rise in the number of men overweight and obese, especially when linked to the reduced physical activity levels seen in most men's lives, are also creating significant increases in life-limiting disease. Other lifestyle related factors such as a high alcohol intake, dietary deficiencies, and various forms of risk-taking continue to increase the likelihood of premature death and disability. The report also demonstrates, however, that men's health encompasses much more than simply disease related mortality; there are significant issues relating to men's overall health and well-being that have emerged through the analysis. As we move from an industrial base to a post industrial society, it would seem that many men are struggling to cope with problems relating to their mental and emotional well-being as well as their physical health. Many of the indicators relating to social exclusion can be seen to be an issue for men i.e. there are worsening opportunities for men with regard to work and full time employment,

men are less likely to have post secondary level education, are more likely to lose contact with families and to end up homeless or in prison.

Whilst the vast majority of both victims and perpetrators of violence are male, females are much more likely to be the victims of intimate partner violence (IPV) and the outcomes of IPV in terms of physical and psychological injuries tend to be considerably more negative for female victims than for male victims. An increasingly aged population is also starting to create new challenges for men with regard to their physical and mental health; the oldest men commit suicide five times more often than women.

Problems of the male reproductive system are both extremely unpleasant for the sufferer and also costly in terms of their management, though much uncertainty still exists as to how many of these problems should be addressed due to lack of research.

Academic development of men's health

The search for material for the completion of this report has highlighted that there is only a relatively recent focus on men and their health, with a short time frame of activity to really develop a good understanding of men and their relationship to their physical and mental health and wellbeing. There are many unanswered questions, for instance, how does 'masculinity' and the heritage of male socialisation processes over the generations influence men's health behaviour, and how are men's changing roles in a post industrial society influencing their health patterns? These are tied in closely with the question of how the social determinants of health impact on men and whether these differ from their effect on women.

It would appear from the scope and complexity of the data covered in this report that a field of practice and academic endeavour around the emerging field of men's health is warranted, in a similar way to that seen around the field of 'women's health'. There would also seem to be scope for much more deconstruction of men's physical and mental health before we can fully begin to understand what is happening.

Research

This academic development is closely tied to our observations relating to the relative lack of a research base for men's health. Many of the key research studies that we hoped to be able to use for this report were found to be

redundant as they lacked a breakdown by sex of their data. We see in reports that children are also grouped into one category, rather than exploring the differing influences of the biological and social development of boys and girls.

There is still much data that is not disaggregated according to sex differences within the main databases. Where there is data broken down by sex there is also a tendency for the data to be presented as age standardised and, judging from much of the findings within this report, there is also a need for a much clearer focus on age specific analysis as the large differences that exist between the physical and mental health of men and women is most obvious in the early years of life.

There have been calls for more research into men's personal experiences of health and ill-health so that we can learn from their own perspective what influences their lives.

Policy

Successes are being seen, with the most significant being smoking legislation, which is starting to bring down the tobacco related health conditions. Other key legislation relates to health and safety in the workplace, and transport related legislation which is seeing major improvements in those countries where it is more strictly enforced.

The policy documents explored through this report were notable in their lack of comment on the male specific issues. It would appear from our analysis that, although individual countries have developed health policies and strategies aimed at improving their population's health a 'one size fits all' approach is evident, which would seem to be to the detriment of both men and women.

Practice

There appeared to be little work that was directly focused onto the needs of men, either in a form that men would use or in places that men would more easily access. While it is acknowledged that male socialisation tends not to lead men to be as aware of health and wellbeing issues as women, men are seldom the focus of specific or targeted health education or health promotion initiatives.

It would seem that current configuration of health services makes it difficult for many men to utilise them as effectively as they should do. This moves beyond

direct access to family practitioners, as it also extends into weight loss groups, counselling services and health promoting activities. Where a male focused approach has been adopted there have been marked improvements in up-take and success of health initiatives.

Though it was not part of the analysis undertaken for this report, there would seem to be an absence of men's physical and mental health as part of either initial or post qualifying training for health professionals. This absence of men's issues from educational curriculum does not help practitioners to understand either the health challenges facing men or how they may be addressed.

Concluding comments

In conclusion the main findings of the report are:

- The lives of both men and women can be severely affected by the health challenges men face and how they respond to them.
- Consensus is starting to emerge on what constitutes a 'men's health' issue.
- Men are dying from heavy impact diseases that are strongly related to their biology, their lifestyle and other social determinants of health.
- Key health policies are in-directly affecting men's health in a positive way, such as smoking bans, road safety legislation, health and safety in the workplace,.
- Gender equality initiatives will have a positive impact on the way men's needs are taken into account within government health strategies and at the more local practitioner level.

This report provides the foundation for a wealth of activity in and around the emerging field of 'men's health' and it is hoped that it provides the catalyst for research and action into the challenges men face at the start the second decade of the 21st Century.

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