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Health Care Systems in Sweden, France and Italy

A comparison of three European countries

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Abstract

This thesis describes three European countries with different types of health care systems, one Beveridge type system, Sweden, one Bismarck type system, France and one system that changed from being a Bismarck system to a Beveridge system in the end of the 1970's, Italy. The purpose is to, though the comparison of statistics and literature see how the government decisions about the health care system and the state of the health care system is affecting the health outcomes in each country. There are characteristics that are specific to either the Beveridge or Bismarck systems and France and Sweden display the characteristics of their respective system as a general rule. Italy cannot be clearly placed in one category only through the comparison of statistics, the characteristics are mixed and display both good and bad parts typical for both Beveridge and Bismarck.

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1. Introduction

There are two main types of health care system, either Beveridge or Bismarck type system. The Beveridge system and is based on a National Health Service, NHS, that provides health care at no, or very small costs to the population. Financing generally comes from the general taxation. The Bismarck system however, is based on a Social Health Insurance, SHI. This system entails compulsory participation in the social health insurance, which is then used to finance the health care system. Contributions to the insurance are levied on labour income, and since participation is mandatory it appears to be a tax (Zweifel et al., 2009). In both systems health care expenditures correspond to a large share of the government expenditures (HFA-DB, 2013), and it has increased substantially as a share of GDP since the 1960's and the technological developments are only adding to the costs (Cutler, 2002).

Sweden, Italy and France all have as a goal to have equal access and quality of care and the populations (Anell et al., 2012, Lo Scalo et al., 2009 and Chevreul et al. 2010, respectively) in the entirety of the populations are covered by health insurance (OECD, 2011). There are differences as to the structure of the health care systems that are mainly falling into the category of Bismarck or Beveridge type systems, but also differences within Beveridge and Bismarck type systems, that may require adaption of the policies to counteract the main problems associated with each type of system (Or et al., 2010).

The purpose of the thesis is to see how government decisions regarding spending on health care and the state of the health care system affect the health outcomes of the population in three European countries, namely Italy, France and Sweden. In order to do this statistics are examined and compared on expenditures, the state of the health care system and on health outcomes. The statistics pertaining to the health care expenditures will be related to GDP or per capita, and in some cases absolute numbers will be presented for illustrative purposes. For the state of the health care system statistics will be presented on e.g. physician density, hospitals and hospital beds per 100 000 population. As for the health status, statistics will be presented on e.g. life expectancy, healthy life expectancy, self perceived health, morbidity etc.

After a description of the health care system in each country the statistics will be compared to the other countries, within the countries and to the literature presented in

the literature review. This will illustrate that Sweden and France will appear to largely fall into the expected behaviour of their respective type of system, while Italy will have mixed results, which may be caused by a change of system in the late 1970's, and some characteristics, similar to France, the Bismarck system, appear to have survived the change, such as the structure of the primary care, where there in Italy as in France is a tradition of having single practices among general practitioners, GPs. There are also typical Bismarck problems that Italy is facing such as cost containment. Further there are similarities as well, e.g. the regional differences in quality and accessibility to health care.

The structure of the rest of the thesis will be as follows: the method used will be presented in section 2, a general literature review will be presented in section 3, a presentation and comparison of the health care systems will be done in section 4 discussion will be done in section 5 and section 6 concludes. In appendices 1 – 3 there are more detailed descriptions of the health care systems as well as a more thorough presentation of the statistics, and in appendix 4 the additional statistics are presented in tables.

2. Method

This will be a descriptive study, using a quantitative method and statistics mainly from the European Health For All Database, which is managed by the World Health Organisation Regional Office For Europe, Eurostat and OECD. The statistics presented speaks to the health care expenditures, the state of the health care system or the health status of the respective populations. Statistics on population composition are also included. Sweden, France and Italy were selected among the European countries, because France is generally considered to be a Bismarck type system, Sweden is considered to be a Beveridge type system and Italy has gone from being a Bismarck type system to being a Beveridge type system. Further they are geographically distributed from north to south, and France and Italy are large economies in the European union, while Sweden in contrast is a relatively small one.

There is one source for each country that has been used extensively in the description of the health care system, and those are the Health Care Systems in Transition Reports.

These reports are done for the European Observatory on Health Systems and Policies, which is a partnership between the World Health Organisation Regional Office for Europe, the European Commission, the European Investment Bank, the World Bank, the French National Union of Health Insurance Funds, UNCAM, the London School of Economics and Political Science, the London School of Hygiene and Tropical Medicine, and the governments of (in alphabetical order) Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region in Italy. These three reports have been used considerably, since they provide detailed and plentiful information on the health care systems.

In the production of health outcomes medical care is, albeit only one, input (see e.g. Grossman, 1982). Following economic production theory, it is then expected that an increase in the input will lead to an increase of output, i.e. that an increase in physician density, hospital density and/or health care expenditures etc. in this case should lead to better health outcomes in the populations. This thesis investigates if this relationship is present in health care in Sweden, France and Italy.

In the discussion the statistics for each country will be compared to the statistics of other countries, as well as within the countries, and connected to the literature presented in the literature review. In the appendices there are parts of the literature that does not directly compare to the statistics, but provide background information to make the interpretation, understanding and the putting into context of the statistics easier.

3. Literature review

3.1 Bismarck and Beveridge type health care systems

The Bismarck system is based on a Social Health Insurance, SHI, and was founded in Germany by the politician Otto von Bismarck. This system entails compulsory participation in the social health insurance, which is then used to finance the health care system. Contributions to the insurance are levied on labour income, and since participation is mandatory it appears to be a tax. These contributions are, unlike private insurance, not based on risk level or current health, but rather on income level or a

simple flat rate (Zweifel et al., 2009). The defining strength of the Bismarck system is the level of patient choice, which is now being restricted by public intervention designed to constrain choice among and/or access to health care providers. An example is the introduction of optional gate keeping, as has been done in France and Germany. These interventions are done primarily to deal with one of the largest problems of the Bismarck system, namely cost containment (Or, et al., 2010).

The Beveridge system was founded in the UK by the politician William Beveridge, and is based on a National Health Service, NHS, that provides health care at no, or very small costs to the population. Financing generally comes from the general taxation (Zweifel et al., 2009). In general, the main problems in this system are limited choice and long waiting lists before receiving treatment and policy interventions are mainly directed to deal with these problems. Strengths on the other hand are that costs are being contained, while providing universal coverage and in general manage to avoid having providers and insurers engage in risk selection and cost shifting (Or, et al., 2010).

Ebola (1996) observed using data from 1992 that patient satisfaction was higher in Bismarck systems compared to in Beveridge systems. Further he noted that, as also noted above, that Beveridge systems are better at cost containment and are overall cheaper than Bismarck systems. Upon these observations Ebola (1996) stated that there is a trade off between the Bismarckian patient satisfaction and the Beveridgian efficiency.

The policy trends described above for the systems could, according to Or et al. (2010), on one hand suggest that Bismarck and Beveridge systems are converging, their differences becoming less and less significant, as they are trying to correct their respective weaknesses (see also Ebola, 1996). On the other hand it could simply describe peripheral changes to the systems, leaving the core differences between them unchanged. When comparing data from five countries, (England, Denmark and Sweden, Beveridge, France and Germany, Bismarck) they find that there are systematic differences in performance regarding certain areas. Beveridge systems are better at cost containment, as stated above, where Bismarck systems have trouble. When it comes to the accessibility, as assessed by patients, the Beveridge systems are performing poorly, and the Bismarck systems are performing well. However, closer examination of why these differences appear demands that structural features are taken into account and here there are

differences also within the respective systems. These differences in the structure of the system, e.g. how many insurance funds there are and who are managing them in Bismarck system, or how physicians are paid, by salary or per consultation, for a Beveridge system, will have a large effect on if and to what extent implemented reforms will succeed. For example, the efforts made to reduce waiting times in the Beveridge systems have had different effect in the three countries examined. In both Denmark and England the waiting times have been reduced, whereas in Sweden, it remains a major problem. The reasons for this, as pointed out by the authors, could be that physicians are not paid per appointment, but on a salary basis, as well as limited supply capacities. This leads Or et al. (2010) to conclude that in doing health reforms, there needs to be adaption to the specific features of the structure of the health care system in the country, not only to copy a general Beveridge or Bismarck system solution.

Figueras et al. (2004) found when examining a large range of indicators that no clear difference could be seen in the performance of a Bismarck and Beveridge system, but that results depend on what indicators are examined. Regarding patent satisfaction, they found a higher satisfaction among patients in the Bismarck systems, as did Ebola (1996) and van der Zee and Kroneman (2007). In the light of this Figueras et al. (2004, p.133) ask the question, regarding the Bismarck systems: "whether the apparent additional satisfaction is justified by the additional money and resources spent, despite the fact that not much more health is obtained". However, van der Zee and Kroneman (2007) criticises the study for including too many indicators and argue that this causes the lack of results.

Van der Zee and Kroneman (2007) found small differences in health outcome performance, when examining data on 17 western European countries from the 1980's to the beginning of the 2000's. They found that mortality rates, life expectancy at birth and infant mortality were all better under a Bismarck system, even though the differences were small and the outcome for infant mortality were converging, which was the only sign of convergence fund. Further, that costs were consistently lower in Beveridge systems, and patients in Bismarck systems were more satisfied, as noted above.

Regarding the reasons for patients in a Bismarck system to be more satisfied than those in a Beveridge system has been argued to be caused by higher accessibility to secondary

care in Bismarck systems, which in Beveridge systems are hampered by e.g. the existence of gatekeeping (Kroneman et al., 2006, Chu-Weininger & Balkrishnan, 2006) and problems with waiting lists (Kroneman et al., 2006, Figueras et al, 2004).

A trade off will arise when looking at purely market based systems and fully socially funded systems, where the market based systems suffer from risk selection and the socially funded systems will have difficulties regarding cost control. Therefore mixed reimbursement systems have been introduced, where e.g. prospective financing, or elements of it, has been introduced in the socially funded system (Schokkaert, Dhaene, & Van De Voorde, 1998).

If providers are given prospective payments for services provided, this will result in efficient production of health services, since any part of that remaining will go to the provider, and this will e.g. keep administration at an optimal level as well as avoiding induced demand. However, if providers are given a constant payment for a homogenous population, or part of a population, this will result in the providers having incentives for risk selection. There is thus a trade off between risk selection and efficiently providing health care (Newhouse, 1996).

3.2 Public provision of a private good

When it comes to literature on the public provision of private goods, such as health care, there are two approaches in literature, according to Blomquist and Christiansen (1999). On the one hand there are normative theories showing public provision of private goods to be beneficial to efficiency through welfare analysis. On the other hand there are voting models where certain groups in society have the possibility to vote in a manner as to redistribute resources to themselves and thus causing inefficiencies (see Epple and Romano, 1996). There should not necessarily be a conflict between wanting efficiency as well as pleasing the voters, in order to be re-elected. Because having private goods publically provided will make it easier to achieve Pareto optimality, thus making such provision desirable for everyone, including policy makers (Blomquist & Christiansen, 1999).

Having private goods, health care, publically provided has been argued to correct market failures, such as information asymmetry. In providing public health care it is possible to

relax the selection constraint, in a setting where the policymakers have imperfect information. It has also been shown that, if lower income is associated with higher health risks, redistribution can be enhanced by the existence of a social insurance. In the case of health care being solely publicly provided there will be redistribution from those who are relatively healthy to those who are relatively unhealthy, regardless of the medical treatments either group receive. Aggregated health in this case can either be higher or lower than in the setting compared to having a purely private provision of health care (Leach, 2010).

In theory, giving the population the possibility of buying private health insurance, in addition to the public care provided, must be welfare increasing for society. Basically, the ones opting for having an additional, private health insurance must be better off, without this option affecting the welfare of the ones not having an additional insurance, whose welfare should be unchanged (Leach, 2010). However, according to Leach (2010), the existence of opting for additional insurance will affect the redistribution, which will be brought closer to that of a system with a pure private provision of health care. In this case, ex post social welfare will not be maximised. Thus there are only two outcomes of having additional private insurance are that either nobody will opt for additional insurance, or the social ex post welfare will decrease.

Theoretically, public provision of health care should be provided in the case of market failures and when those market failures are less costly to correct using public intervention compared to implementing a market based solution (Arentz et al. 2012). If this is not the case, the market should provide health care. Then insurance premiums would be based on risk, in lack of other regulation. This in turn raises the question of equality in the health care system, and what kind of system the society will accept. If there is a risk based insurance premium, the unhealthy part of the population will have to pay more, and might not be socially acceptable, especially if high risk is associated with low income (Zweifel & Breuer, 2006). Having other market solutions than risk based would lead to risk selection, or cream skimming, thus calling for public intervention (Eekhoff et al., 2006, Schokkaert et al., 1998). Public intervention, however, would lead to insurance markets working inefficiently. For example, having uniform contributions to the health insurance would result in efficiency loss and also possibly hamper redistribution. Having open enrolment would force additional regulation since with it enables self-selection of

risk. It is the additional regulation in case that is causing the main part of the inefficiency. The solution offered is to combine premiums based on individual risk and a tax aimed at redistribution, making the government responsible for the redistribution, instead if the insurers. This would then limit the amount the individual can be charged for insurance, without extensive effect to health care budget (Zweifel & Breuer, 2006).

Generally, in developed countries the health care systems have a basic nation of providing equal access to all its citizens, and have in the past focused more on equality than on efficiency. Equity was placed over effectiveness, in the classical trade off. This became a problem when the costs for the government started to rise, as a matter of illustration: the share of the GDP spent on health care has generally doubled since the 1960's. The first step taken as to slow the increase in health care expenditures down was to regulate and set a limit to the costs of medical care, policies which were having their main effect during the 1970's and 1980's. However, not actively tightening of these regulations, in combination with technological developments increasing costs has lead to a discontent with these restrictive regulations, and shifted focus to incentive based regulation, market solutions and competition (Cutler, 2002).

Reforms of the health care systems are slow, which is the case in most countries. The avoidance of making changes to rapidly to the system is one of the main reasons. Also, concerns about loosing equity is one of the obstacles, in many countries equal access have been an important goal for a long time, and changing that mind frame is difficult. Meanwhile, the costs of health care is becoming more expensive as technological progress is made, making the decision in the equity – efficiency trade off even more difficult (Cutler, 2002).

3.3 Political economy and health care provision

The health care provided by the government must be restricted, since without restrictions what so ever, the national product in its entirety could be spent on health care expenses in the near future, according to Breyer (1995). He goes on to specify that the solution to this restriction will, in a democracy, be explicit rather than implicit and done by institutional arrangements, which will cover care at all levels, even that affecting fundamental survival chances. Further, in the more plausible case examined, there will be the possibility of obtaining additional private insurance, which will result in a higher level

of total health care consumption, as well as a lower level of provision of public health care covered by the social insurance. Since the wealthier part of the population will consume the larger portion of private health care, this system will be less attractive to the part of the population who are not able to afford the private health insurance. Which system that will be implemented in a democracy will thus depend on the composition of the population (Breyer, 1995). Gouveia (1997) finds that the income of the median voter generally will be lower than the median income of the population, and therefore the middle-income groups will benefit from having the public health care expanded, which will not be beneficial to neither the rich not the poor.

When having proportional taxes, the households having an income below the median income will prefer, and thus vote for, a positive tax, whereas households with an income exceeding the mean will opt for a zero tax. Therefore, in a voting setting, a positive proportional tax will be levied on the citizens only if the median voter has an income below the mean (Epple & Romano, 1996) and again the outcome will depend on the composition of the population, as in Breyer (1995).

Epple and Romano (1996) found that, disregarding market imperfections and instead focusing on the role of the government in providing private goods, dual market provision, i.e. that it is possible to consume both publically provided health care as well as privately provided, is associated with higher expenditures than a pure market provision of health care, thus implying that the combination of provision inefficient. However, they find that, in spite of this, the combination government and private provision of health care will be the preferred alternative of the population.

A tax based financing system will provide different incentives than an insurance financing scheme with voluntary contributions. The taxes will in the minds of the population not be specific contributions to the health care system, but only a tax going into the general government budget, while the voluntary insurance contributions will be connected also in the minds of the population to the health care system and thus the contribution is welfare improving. Also, when voting, dead weight loss should be taken into account by the voters (Gouveia, 1997).

When the health care system is financed based on income, there are two redistribution effect, redistribution from the wealthy to the poor as well as redistribution from the healthy to the sick. By applying a flat fee contribution for health care, the redistribution from the wealthy to the poor would be eliminated and only the redistribution from the healthy too the sick would remain. However, if there are higher health risks associated with having a lower income, having the double distribution may lead to a higher total welfare, compared to having the redistributions separated, in a purely theoretical sense (see e.g. Blomqvist & Horn, 1984, Rochet, 1991, Cremer & Pestieau, 1996 and Petretto, 1999, Kifman, 2005). When also taking into account the democratic decision process, under the assumption that information is incomplete, i.e. that the insurance markets are incomplete and insurance can be bought to cover changes in health risk status due to changes in one's health, risk premiums. Further an assumption is made that in the democracy with a public health insurance policy, the level of the public health insurance is set by a majority vote (Usher, 1977, Breyer, 1995, Epple Romano, 1996 and Gouveia, 1997, Kifman, 2005). In this case, both the wealthy and the less wealthy citizens will opt for an income based contribution to health insurance since it provides them with a cover for changes in their health status risk classification, and the less wealthy are given access to subsidised health care. There is thus no political support for the complete separation of the two redistributions (Kifman, 2005).

3.4 Health care expenditure

Several indicators have been used to explain what are driving the health care expenditures, such as, but not exclusively, income, demographical indicators, institutions and technological developments (Martín et al., 2011). The characteristics of income is one of the main reason for differences in health care expenditures across countries, more specifically if health care is a necessity good or a luxury good in Europe, i.e. has an income elasticity below or above one, respectively (Pammolli et al., 2012). It has also been suggested by Hall and Jones (2007) that health care is a superior good, and that health care expenditures will prolong life and thus there will be additional periods that the individual will have utility from. In this case, diverting funds towards health care expenditures is worthwhile, since additional years of life also entails additional years of consumption, causing health care expenditures to grow along income (Pammolli et al., 2012).

That health care takes the form of a luxury good was found to be the consensus during the 1980's and 1990's, when looking at OECD countries (See e.g. Leu, 1986, Parkin et al., 1987, Brown, 1987, Gerdtham et al., 1992). In the 1990's the introduction of time series and pane data analysis started to find results where the income elasticity was closer to one, i.e. a normal good (See e.g. Cuyler, 1990, Hitiris & Posnett, 1992, Hitiris, 1997). In the 2000's negative income elasticity was found as well as results well over one (See e.g. Crivelli et al., 2006, and Roberts, 2000, respectively). Income as a main driver behind the health care expenditures is only identified in four of the articles reviewed, and in two of them health care is a luxury good. One reason for negative income elasticity and income elasticity close to zero can be that the analysis were carried out using data from countries with a strong regionalisation and decentralisation to the regions, as is the case of Crivelli et al. (2006) who found a negative income elasticity from looking at the Swiss health care, and Di Matteo and Gianoni and Hitiris (2002) who found income elasticity close to zero when looking at Canada and Italy, respectively (Martín et al., 2011).

In the model for unbalanced growth the notion is established that if health care services are part of the non-progressive sectors, i.e. have lower productivity gains than other sectors, which are progressive, then the health care sector will have rising relative prices over time, and thus following increasing health care expenditures (Baumol, 1967, Baumol, 1993). This would then cause health expenditures to increase faster than GDP, which seems to be the case in Europe, although to varying degree between countries (Pammolli et al., 2012).

Accounting for the price effect Pammolli et al. (2012) finds that health care is a luxury good, which was first found by Newhouse (1977), and that apart from GDP, which was the main explaining factor behind expenditures in Newhouse (1977), the level of health care expenditure is affected by ageing of the population as well as the level of female labour participation. These socio-demographic trends, together with improving quality of care and technology will lead to increased problems to contain costs of the health care system in its current form (Pammolli et al., 2012).

Regarding the effects of the population ageing, there have been differing results through out the 1990's. Examples given by Martín et al. (2011) are Blomquist and Carter (1997) that found a positive impact from population ageing on the health expenditures, while

Getzen (1992) did not find such an effect, both comparing OECD countries. A more specific result was given by Gerdtham (1993), who found that 13% of the increase in Swedish health care expenditure was due to the increasing age of the population.

To instead focus on proximity to death was done by e.g. Zweifel et al. (1999), Seshamani and Gray (2004a and 2004b) finding that proximity to death has an impact on health care expenditure that is larger than that of actual ageing, using Swiss and English data, respectively. Breyer and Felder (2006) and Werblow et al. (2007) also find that including proximity to death in their regressions decreases the effect of ageing. Gornemann and Zunzunegui (2002) state that, regardless of age, the increase to health care expenditures is caused in the last four months to a year before death.

3.5 Decentralisation of the heath care system

There is not one prominent pattern when it comes to decentralisation, since decentralisation can be done to different degrees, and control over different functions can be handed to local governments rather than the national one. The economic reason for decentralisation is to improve the efficiency of the delivering of health care services, be it only a small bundle of services or the bulk of the services offered within the countries health care system. It is also aimed at minimising waste of resources and to better meet the demand of a more limited population (Mosca, 2007). Further decentralisation is done in order to improve accessibility for the patients, as well as a more evenly distribution of the services provided. It is also the intention that decision-making will be improved, since local information can be taken into account (Giannoni & Hitiris, 2002). However, in the case of a Bismarck system that already often has a complex structure, due to several insurance funds that the government have limited control over as well as the number of physicians practices, adding decentralisation to the equation will not make the structure simpler (Mosca, 2007).

The decentralised system can also have negative effects on the distributions of services and increase regional differences, since when responsibility is given to e.g. the regions, and within those responsibilities decision making power is given, then, as is the goal, strategy and redistribution of resources as to fit the needs of the population. However, the decisions made in the regions may differ in e.g. the level to which they comply with national policies, there may also be considerable differences in the resource allocation

and also the size of the budget. This effect stands in opposite to the goal of a Beveridge system, where the National Health Service is tasked to provide care for all citizens, regardless of where in the country they live. Decentralisation in this case can be counter productive with respect to this goal, leaving the countries with significant differences between regions as an additional problem to the cost containment issue, which is a problem in most developed countries (Giannoni & Hitiris, 2002).

Regarding the effect of regional decentralisation on health care expenditures, Martín et al. (2011) does not find a consensus in literature that decentralisation should have an increasing effect on health care expenditures. E.g. Mosca (2007) finds that increased decentralisation does affect the health care expenditures positively, i.e. that decentralised systems spends more than centralised ones, and within these two categories Bismarck systems still spends more than Beveridge systems. This study is done on data from a sample of OECD countries. Looking at country specific studies, Costa-Font and Pons-Novell (2007) finds a positive relationship between decentralisation and health care expenditures in Spain, while Giannoni and Hitiris (2002) and Crivelli et al. (2006) does not find this effect, when examining data from Italy and Canada, respectively.

4. Comparison of the health systems

The French health care system has, historically, been marked by having many actors both in providing and the funding of health care. Today however, it is defined by Chevreul et al. (2010) as a mix, a Bismarck system with Beveridge goals. It is also described as a system where patient choice is extensive and the coverage of the benefit system is generous.

In Italy, an employment based insurance system worked well during the period of rapid economic growth after the Second World War, 1958-1963, when Italy was experiencing full employment. However, in the mid 1970's unemployment started to rise, this prompted the giving of responsibility of the health care provision to the regions in 1974-75 (Lo Scalo et al., 2009) and creation of the National Health Service, *Serivizio Sanitario Nazionale*, SSN, in 1978, the latter bringing universal insurance coverage to the Italian citizens (Lo Scalo et al., 2009 and Giannoni & Hitiris, 2002).

In Sweden, the health care system is socially responsible for providing the citizens with access to good health care, and it has a public commitment to guarantee the health of the population. The entire health care system is based on three basic principles, namely the principles; of human dignity, of need and solidarity, and of cost effectiveness. These principals entail that everyone have the same rights and deserves to be treated with dignity, that the most needy have priority, and that costs in relation to effectiveness should be considered when facing treatment options and this should be measured by improvements to health and life quality (Anell et al., 2012).

Below the statistics of the individual countries will be compared to each other. There will also be observations made on the within country characteristics. Further country specific information can be found in appendices 1-3 and tables in appendix 4 are recognised by an A in the denotation of the table.

Table 1. Inputs in the health care system

Total health expenditure as % of gross domestic product (GDP), WHO estimates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	10.08	10.22	10.56	10.94	11.04	11.16	11.1	11.08	11.02	11.74	11.68	11.64	...
Italy	8.02	8.18	8.3	8.32	8.62	8.9	8.98	8.64	9	9.48	9.56	9.5	...
Sweden	8.18	8.88	9.22	9.32	9.1	9.06	8.96	8.92	9.24	9.94	9.56	9.36	...

Total health expenditure, PPP$ per capita

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	2544.4	2716.6	2920.8	2954	3089.6	3253.9	3434.8	3600.1	3763.6	3961.7	4016.1	4117.9	...
Italy	2028	2199.8	2206.8	2227.8	2340.3	2472.7	2683.8	2723.8	2967.3	3029.5	3018.5	3012	3071.1
Sweden	2286.4	2501.6	2701.8	2833.1	2953.2	2963.4	3190.6	3429.3	3655.8	3703	3716.6	3924.8	...

Public sector health expenditure as % of total health expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	79.4	79.4	79.7	77.8	77.7	77.7	77.2	77.3	76.8	77	76.9	76.8	...
Italy	74.2	75.9	75.9	76.2	77.4	77.9	78.2	78.3	78.9	78.9	78.5	77.8	78.2
Sweden	84.9	81.1	81.4	82	81.4	81.2	81.1	81.4	81.5	81.5	81.5	81.6	...

Hospitals per 100 000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	5.3	5.22	5.12	4.99	4.88	4.79	4.68	4.59	4.49	4.4	4.18	4.14	...
Italy	2.32	2.29	2.25	2.22	2.23	2.21	2.18	2.14	2.1	2.06	2.03	1.95	...
Sweden	1	0.87	0.9	0.9	...	...	...	...	...	...	...	...	...

Acute (short-stay) hospitals per 100 000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	3.69	3.65	3.6	3.5	3.42	3.37	3.28	3.22	3.14	3.07	2.92	2.88	...
Italy	2.02	2.01	1.99	1.92	1.9	1.92	1.9	1.91	1.83	1.8	1.78	1.69	...
Sweden	0.9	0.85	0.86	0.87	...	...	...	...	...	...	...	...	...

Hospital beds per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	5.3	5.22	5.12	4.99	4.88	4.79	4.68	4.59	4.49	4.4	4.18	4.14	...
Italy	2.32	2.29	2.25	2.22	2.23	2.21	2.18	2.14	2.1	2.06	2.03	1.95	...
Sweden	1	0.87	0.9	0.9	...	...	...	...	...	...	...	...	...

Acute care hospital beds per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	419.07	408.71	403.25	393	385.59	380.62	373.2	369.03	363.23	359.76	346.38	342.92	...
Italy	407.01	396.37	376.77	351.16	333.1	330.86	323.29	312.7	302.09	292.23	287.16	275.14	...
Sweden	247.58	234.45	228.33	223.09	222.63	218.33	212.01	211.14	207.01	203.73	202.03	201.16	...

Physicians per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	...	...	...	...	...	...	...	...	...	...	...	307.03	318.23
Italy	...	...	...	...	...	...	...	...	...	367.54	...	409.85	...
Sweden	...	...	...	...	...	351*	360*	368*	374*	380*	386*	...	...

General practitioners physical persons per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	166.71	168.02	168.71	169.48	169.88	169.96	168.85	167.7	167.75	164.99	159.4	156.49	160.53
Italy	82.83	82.56	82.07	81.78	80.9	80.23	78.85	79.09	77.73	76.77	75.85	75.9	...
Sweden	52.91	54.78	56.16	57.24	57.8	59.09	60.57	61.87	62.22	63.25	62.86	...	...

Source: European Health For All Database, HFA-DB, (2013), *OECD, 29 (2013)

Table 2. Health outcomes in the populations

Life expectancy at birth, in years*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	79.35	79.43	79.55	79.44	80.5	80.49	81.16	81.47	81.43	81.76	...	...	...
Italy	79.75	80.09	80.38	80.17	...	...	81.58	81.7	81.91	82.07	82.5	...	...
Sweden	79.92	80.01	80.09	80.37	80.55	80.82	81.05	81.19	81.35	81.61	81.77	...	...

Life expectancy at birth, in years, male*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	75.49	75.64	75.88	75.93	76.89	76.93	77.51	77.78	77.85	78.19	...	...	...
Italy	76.65	76.96	77.27	77.24	...	...	78.62	78.84	79.09	79.32	79,75	...	...
Sweden	77.51	77.67	77.85	78.06	78.33	78.57	78.88	79.12	79.29	79.53	79,73	...	...

Life expectancy at birth, in years, female*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	83.15	83.17	83.14	82.88	83.99	83.94	84.65	85.01	84.84	85.19	...	...	...
Italy	82.68	83.05	83.3	82.92	...	...	84.33	84.35	84.52	84.62	85,04	...	...
Sweden	82.26	82.27	82.26	82.62	82.67	82.99	83.15	83.19	83.36	83.61	83,74	...	...

Healthy life years in absolute value at birth - females

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	64,3	64,6	64,4	64,4	64,6	63,5	63,4	63,6	63,9
Italy	71	67,8	64,7	62,5	61,9	62,6	67,6	62,7	61,5
Sweden	60,8	63,2	67,5	66,8	69	69,6	71,1	70,2	70,7

Healthy life years in absolute value at birth - males

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	61,5	62,3	62,8	62,8	62,7	62,8	61,8	62,7	62,6
Italy	68,7	66,6	65,2	63,3	63	63,4	67,6	63,4	62,1
Sweden	62	64,5	67,3	67,7	69,4	70,7	71,7	71,1	70,9

People having a long-standing illness or health problem, (%), all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	36,1	34,6	34,5	31,9	36,7	37,1	36,9	36,2	36,3
Italy	21,1	21,7	21,4	20,6	21,9	21,4	22,0	25,3	23,4
Sweden	49,7	41,4	33,7	33,4	32,8	32,5	30,6	32,2	33,8

Self-perceived health (%), very good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	25,2	24,4	25,1	27,2	24,6	25,1	23,2	22,6	25,2
Italy	13,9	13,9	13,4	12,3	12,9	13,3	14,9	13,1	13,7
Sweden	36,4	37,1	34,0	37,8	37,2	39,1	36,7	38,5	35,8

Self-perceived health (%), good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	42,4	44,3	44,1	43,9	44,5	43,5	44,1	45,0	42,9
Italy	43,5	44,2	43,5	51,1	50,6	50,5	51,9	51,6	54,7
Sweden	35,3	38,5	41,9	39,8	41,3	40,6	43,3	41,4	45,3

Infant deaths per 1000 live births*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	4.39	4.46	4.1	4.02	3.89	3.58	3.57	3.53	3.52	3.49	...	...	...
Italy	4.47	4.64	4.36	3.95	...	...	3.65	3.47	3.51	3.62	3.35	...	...
Sweden	3.42	3.66	3.28	3.12	3.16	2.45	2.81	2.51	2.49	2.49	2.54	...	...

Maternal deaths per 100000 live births*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	6.47	7.93	10.66	8.55	7.81	6.08	8.53	8.9	8.04	9.42	...	...	...
Italy	2.97	2.07	3.17	5.18	...	...	1.97	2.3	2.28	3.37	2.87	...	...
Sweden	4.42	3.28	4.17	2.02	1.98	5.92	4.72	1.86	5.49	5.37	2.59	0.89	...

Source: Eurostat (2013a) *European Health For All Database, HFA-DB, (2013)

4.1 Health care expenditures

Both in Italy and in Sweden health care expenditures as a percentage of GDP, around 9 or 9,5%, with a starting point in 2000 of close to 8% of the GDP. Comparing this to France, the French health care expenditures accounts for a larger share of GDP, staring in 2000 at slightly more than 10% to exceed 11,5% in the later part of the time period examined. France is also the country that spent the most, 4117,9 PPP adjusted dollars, compared to 3071,1 and 3924,8 for Italy and Sweden, respectively. Since 2000, all the countries have seen an increase in their health expenditures, see Table 1. However the share of the expenditures that are directed to inpatient care differ, where Sweden has the lowest share 28,4%, France the middle at 37,1%, and Italy the highest 46,7%. A difference is that the French number has been varying with a difference of 2% and the Swedish and Italian shares are increasing, see Table A.1.

The public share of the health care expenditures have seen different trends in the countries, in France the share of public health has decreased, with a corresponding increase in private health care. There was also a decrease in pubic health in Sweden, between 2000 and 2001, but after that the share has been quite steady. It has also been relatively steady in Italy, but since 2005 and prior to that there was an increase in the share of public care, with a corresponding decrease in the private share, see Tables 1 and A.1. The share of the total government expenditures that was designated to private care was quite close in Italy and Sweden, who were both close to 15%, and France had almost 16% of their total government spending on public health care. When it comes to the public in-patient care, in France and Italy the level is lower, but close to each other 93 and 93,7% respectively, than in Sweden, 98,3%. The trends have however been decreasing for all, see Table A.1.

France has the lowest out of pocket payments for households, by more than 10 percentage points, almost 7,5% of the total health care expenditures. In Italy and Sweden, the same numbers were almost 20% and almost 17%, respectively. As for the trends they have been different, in France there is no clear trend neither increasing nor decreasing, but in Italy the out of pocket payments has decreased and in Sweden they have increased, see Table A.1.

When it comes to the governments' pharmaceutical expenditures, it represented an almost equal part of the total health care budget for France and Italy, 15,6 and 15,7%, respectively. Sweden had a smaller share devoted to this purpose, 12,1%, all in 2011. However, when looking at the amount spent per capita, France is the country spending the most, 641,1 dollars, and with an increasing trend. There was also an increasing trend in Sweden, which was the country spending the least per capita in 2011, 474 dollars per capita. The Italian spending per capita was close to the Swedish, 482 dollars per capita, but there have been fluctuations, as mentioned above, see Table A.1.

4.2 Hospitals and patients

The over all number of hospitals is, logically, quite different, since the three countries differ in size and population. Something that is common to the three is that the number of hospitals in absolute terms has decreased over all, since the year 2000, see Table A.2. The hospital density, for which there was no information available for Sweden, has also decreased for both France and Italy, however, the density has consistently been higher in France, through the time period examined. The number of hospital beds per 100 000 inhabitants are decreasing for all three countries, see Table 1. Looking at the absolute number of hospital beds it is clear that there is a ranking, where France has the most beds and Sweden the least, for the entire time period. Further, the percentage of hospital beds that are private the Italian share has been quite constant and was 31,53% in 2011, the same number for France was 37,75%, and their share has been increasing, see Table A.2. For Sweden there were, as mentioned above no data from the database on this, but Anell et al. (2012) stated that in 2012 there were a total of 1100 private hospital beds in Sweden. Assuming this was true also in 2011 and using the total number of hospital beds as given by the European Health For All Database, this would account for 4,3% of the total hospital beds, which is considerably lower than both Italy and France.

When looking at discharges, the number per 100 inhabitants have been steady in both Sweden and France, at 16 and 19 discharges per 100 population, respectively. In Italy, the number has decreased to be 11,77 discharges per 100 inhabitants. For acute care hospitals there has been the same trends and the level is a bit lower that of total hospitals, see Table A.2.

As for the number of out patient visits to primary or ambulatory care the average number of visits per person and year have been quite stable in France and Sweden, 6,8 and 3,05 visits in 2011, respectively. In Italy the only observations were 6,1 visits on average in 2000 and 7 visits in 2005. The Italian and French levels are thus quite close together, while the Swedish is significantly lower, see Table A.2.

4.3 Physicians

From the most recent number for each country, France has the lowest physician density, 318,23 physicians per 100 000 inhabitants, and Italy the highest, 409,85 physicians per 100 000 inhabitants. In Sweden there were 390 physicians per 100 000 inhabitants. The Italian, French and Swedish physician density has been increasing judging from the available data. In France and Italy there have been increasing trends in almost all specialities, but the general practitioners have decreased. In Sweden there has been an increase in all specialities, see Tables 1 and A.3.

4.4 Population composition

There are no large differences in crude death rate per 1000 population, in the most recent numbers between Italy and Sweden, and France is slightly lower. The differences when it comes to the most recent numbers for the fertility rate, which is the highest in France, at 2,03 children per woman on average, Sweden is close to that, at 1,9, and in Italy it is the lowest at 1,41. Italy has the lowest share of the population between 0 and 14 years old, and then in the ranking comes Sweden and then France. In contrast, Italy also has the largest share of the population above 65 years old, Sweden the second most, and France the smallest share. Comparing the size of the two age groups, in France there is a larger share of the population in the 0-14 years old than in the older than 65, in both Sweden and Italy it is the other way around, see Table A.4.

4.5 Life expectancy

The over all life expectancy at birth is similar, especially in Sweden and France, for the latest numbers available for each country. Italy has a somewhat higher life expectancy. This is also the case for the life expectancy at 1 and 15 years of age. Counting from the age of 45 there is a bit more difference, and Italy has the highest and Sweden the lowest life expectancy. For the life expectancy at 65 years old, France has the longest and

Sweden the shortest. Looking at the increase in life expectancy as a total number of life years, as the age increases, the Swedish life years increases from 81,77 at birth to 84,95, which is an increase of 3,18 years. In Italy the same number is an increase form 82,5 life years at birth to 85,76 life years based on the life expectancy at 65 years old. This corresponds to an increase of 3,26 life years associated with reaching the age of 65. In France, the life expectancy at birth was 81,76 and if reaching 65 years of age the total number of life years have increased to 86,3, which is an increase of 4,54 years. The increase in total life years associated with attaining a higher age is the largest in France, then there is a small difference between Italy and Sweden, with the latter having the lower increase, see Tables 2 and A.5.

Comparing the life expectancy differentiating by gender, at birth there are no big differences, however, French men live shorter than Italian and Swedish men, but Swedish women live shorter than both Italian and French women, this is also the case when the life expectancy at the age of 1 and 15, and regarding the males also for the life expectancy at 45, however, for the women there are a bit more difference, with the French women living the longest, then Italian and then Swedish. By the age of 65 this same pattern hold for the women and for the men, but for them the differences are smaller, see Tables 2 and A.5.

Women are expected to live longer than men, consistently through the statistics presented by the European Health For All Database, and the largest differences are found between French men and women, where it can differ as much as 6,94 years, when the French are 15 years old. The next largest differences are in Italy and the lowest differences are in Sweden, see Tables 2 and A.5.

4.6 Healthy life years

At birth, the average woman and man with the most healthy life years to look forward to would be the Swedish, then the French and then the Italian, the last two having quite similar numbers for females and almost the same for males, see Table 2. The over all ranking is the same when the populations reach the age of 50, as well as for the ages of 65 years old and older. Further, women have a longer healthy life expectancy than men do, consistently over the time period examined. When basing the calculation of expected

healthy life years on reported self perceived health the main pattern holds, even though the numbers differ, and tend to be lower, see Table A.6.

When comparing the male and female healthy life expectancy based on self perceived health within the country the largest difference is found in France, for all age categories, the next largest differences in Sweden and the lowest differences in Italy. If instead comparing the statistics on healthy life years, all differences are smaller, and in several cases the men are expected to have more health life years than women, more specifically in Italy for all age groups and in Sweden at birth. In France women are always expected to have more heath life years than men, see Table A.6.

4.7 Self-perceived health

In the case of self perceived health there is a pattern among all the countries that the largest category of the population states that their health is good, also when differentiating between men and women. In Sweden and France the percentage is in the lower and middle 40's, and in Italy there is consistently more than 50% that states that their health is good, for the total population as well as the male and female populations separately. For the category very good, Sweden has the largest share of the population in this category, then France and then Italy. The differences in magnitudes are quite different, where Sweden has in the total population 35,8%, France 25,2% and Italy 13,7%, for the men an women separately, the men are stating higher that they are in very good health to a higher degree than the females for all three countries. When it comes to the category for fair health the differences are smaller, but France has the largest share of the population in this category and Sweden the smallest, also when separating men and women. However, the women state to have fair health to a larger extent than men. For the share of the respective populations in bad health, the highest statements were consistently in Italy, then France, then Sweden, and women stated to a higher degree than men to be in bad health. Finally the very bad health category is the smallest category in all the three countries, and Italy had a larger share of their population stating that they were in this category compared to France and Sweden, who were close together. Also for this category the share of women is larger than the share of men perceiving that they are in very bad health, see Table 2 and A.7.

4.8 Morbidity

France has the largest share of the population suffering from a long standing illness or health problem, second is Sweden, third is Italy. Sweden and France are closer together compared to Italy, where the total morbidity is more than 10 percentage point lower than in France, see Table 2. The considerably lower share of long term illness in Italy continues, when looking at the age groups, until the age group 65-74 years old, where it is close with the others. France and Sweden continue to be reasonably close, when looking at these age groups. Looking at the share of the population that are 75 years of age or older, the largest share with a long standing health problem is found in France, the next largest in Italy and the smallest in Sweden. For the individual countries the share of the population suffering from a long term health problem or illness is increasing with the age groups, see Table A.8.

There are no large differences between males and females until the age group of the 45-54 year olds, where the Swedish women are having a larger share with a long standing health issue than the Swedish men, a difference which continues for the two following age groups, until it is again fairly even for the 75 years old and above. For the other two countries men and women continue to be fairly close together, see Table A.8.

As for the share of the population that suffers severe limitations due to a long term illness or health problem, the shares are the same in Sweden and France at 8,6% of the population that suffers from a long standing health issue. In Italy there are 6% reporting the same thing. When looking at the males and females separately, women report severe limitations to a higher degree than men do. Something that is also true for the share reporting some limitations caused by their health issue. Considering the total population in this category the largest share reporting some limitation in usual activities are from Italy, with 19,6%, second, France with 16,1% and the lowest share is in Sweden, with 9,4%, which is less than half in Italy, see Table A.8.

Further, the vast majority of the populations report having no limitations in their usual activities caused by their disease or health problem, in Sweden 84,6%, in France 75,3% and in Italy 71,8%. The men are reporting to a higher extent than women that they suffer no limitations in usual activities, which corresponds to the higher share of women reporting that they have limitations to some extent, see Table A.8.

In all three countries there has been an increase in the share of the population reporting a body mass index, BMI, of 25 or higher, indicating that they are overweight or obese. For the male part of the populations, close to, or above, half reported that they were obese or overweight compared to the women, where between roughly 35 and 40% reported the same thing. Among men, who are in general reporting to be overweight or obese to a higher extent than women, the highest share reported was in Italy and the lowest was in France. For the women, the highest share reported was in Sweden, and the lowest in France, the Italian share is close to the French, see Table A.8.

4.9 Infant and maternal health

Infant mortality in Italy and France are close together, and in Sweden it is consistently lower, a pattern that holds regardless of if one is looking at the total infant deaths per 1000 live births, or if differentiating depending in the sex of the infant. Maternal deaths have large differences where the number of deaths per 100 000 live births in France is more than 10 times as high than it is in Sweden. The most recent numbers are for each country, as mentioned above, 0,89, 2,87 and 9,42 deaths per 100 000 live births, for Sweden Italy and France, respectively, see Table 2. There is also a large difference in the number of abortions per 1000 live births, where there are 100 more in Sweden than in Italy, which have the highest and lowest number, see Table A.9.

When it comes to the vaccination of infants the percentage that are vaccinated, for the following diseases almost all, or a vast majority of all infants are vaccinated in all countries: diphtheria, tetanus, pertussis, measles, poliomyelitis, haemophilius influenzae type b, and rubella, the last one being the one with most variation of the list. Regarding tuberculosis, the vaccination of this is widespread in France, but not in Italy and Sweden, and considering hepatitis b, in Italy almost all infants are vaccinated against this, in France just over half and in Sweden less than a third, see Table A.9, however, none of the countries studied are on the list of countries where risk of tuberculosis or hepatitis b, according to the Public Health Agency of Sweden (2013).

4.10 Patient satisfaction

As mentioned above the vast majority of patient state that they are satisfied with the medical examination they received, but the highest degree of satisfied patients are in France at 94,5%, second is Italy with 93,6% and Sweden has the lowest patient satisfaction at 88,5%, see Table 3. In Italy the younger population, between the ages 16 and 64, are more satisfied than the older age group, 65 years old or above, but by a margin of less than 2 percentage points. In Sweden and France it is the other way around and the older age group is more satisfied than the younger. In France the difference is less than 8 percentage points and in Sweden the difference is less than 7 percentage points, see Table A.10. As for the dissatisfaction caused by waiting lists, for the total population, the share is below 1% for all countries, but Sweden and Italy are close together and higher than France, se Table 3. In Italy the older part of the population have more unmet needs caused by waiting lists, at 1,2%, compared to 0,5% of the younger part of the population. In France and Sweden it is again the other way around with the younger being more dissatisfied by the waiting lists and the differences are smaller, at 0,3 and 0,2 percentage points, respectively, see Table A.10.

Table 3. Patient satisfaction

No unmet needs to declare, all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	95,3	96,2	96,3	96,3	96,0	94,9	95,2	94,5	94,5
Italy	92,5	93,1	93,2	93,6	92,8	92,9	92,8	92,8	93,6
Sweden	87,2	84,7	85,0	85,1	87,4	87,8	88,8	88,3	88,5

Unmet needs due to waiting list, all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	0,2	0,2	0,1	0,2	0,2	0,3	0,2	0,4	0,3
Italy	1,5	1,4	1,5	1,4	1,2	1,3	1,4	0,8	0,7
Sweden	1,7	2,1	1,8	2,4	1,8	1,5	1,3	0,8	0,8

Source: Eurostat (2013b)

5 Discussion

The purpose of this thesis was to investigate if the government decisions with regards to the health care system, i.e. how the health care system is structured and health care expenditures, and the state of the health care system affect the health outcomes in the population, using Sweden, France and Italy as examples.

In all the systems there is a public provision of health care, even though health care is a private good. The reasons for this are stated above, and can be related to the political system where politicians have to please the voters in order to be re-elected. As a result of this all the health care systems aim to provide equal and universal access to the systems, regardless of the type of system, but all of the systems here are also dealing with regional differences in the provision of care. The health care system in all three countries have been decentralised, but in France and Sweden, there has been recent steps towards a larger regional control, in Sweden with the creation of two larger regions, those of Västra Götaland and Skåne, and in France the creation of the ARS, that not only covers several departments, but also combined several regional agencies into one, making it easier to coordinate within the regions. This can, in the case of France, put into context by Mosca (2007), who states that decentralisation in a Bismarck system can make an already complicated structure in the health care system become more complicated. Further Mosca (2007) states that dectralisation is done with the intention to increase efficiency and Giannoni and Hitiris (2002) also points out that decentralisation, while providing the opportunity to adapt to local needs, can increase regional differences. Regional differences in Italy have been pronounced since the unification of the country, in 1861, with the large difference between the northern and southern regions. The Italian regions have great autonomy regarding the health care, and they have, according to Lo Scalo et al., (2009), even room for interpreting the government directives. Government directives, or guide lines have been implemented in Sweden to decrease the regional differences and to increase communication between municipalities and counties or regions.

5.1 Health care expenditures

Bismarck systems are expected to spend more, compared to Beveridge systems, as mentioned above in the literature review, see e.g. Or, et al., (2010), Figueras et al. (2004) and Ebola (1996). France has, however, implemented cost containment schemes, which

according to Or, et al., (2010) is one of the expected policy trends of a Bismarck system. The French are still spending a larger share of their GDP than Sweden and Italy does. France is also the country spending the most per capita, however, the Swedish spending per capita is closer to the French than the Italian level. France is also spending the most on both in-patient care and pharmaceuticals. In Italy, as mentioned pointed out by (Giannoni & Hitiris, 2002), cost containment has been an issue since the change into a Beveridge system in 1978 with the implementation of the SSN. Cost containment measures have been implemented and in comparison with Sweden, the other Beveridge system, the percentage of GDP spent on health care is just below the Swedish level for the larger share of the time period examined.

The unbalanced growth model, is explaining the increasing health expenditures as the result of the health care sector being non-progressive, causing relative prices to increase over time (Baumol, 1967, Baumol, 1993). This can be illustrated by the health expenditures growing faster than the GDP, which according to Pammolli et al., (2012) is the case in Europe, to differing degrees. This also appears to be the case for France, Italy and Sweden, seeing as the percentage of the GDP spent on health care is increasing over the time period examined, thus indicating that the health care expenditures are growing faster than the GDP as a reflection of the increasing relative prices of the health care sector. This could also indicate that increasing income, GDP, will increase the consumption of health care, thus raising the costs as stated by e.g. Pammolli et al., (2012) and Hall and Jones (2007). In Pammolli et al., (2012), among others, this is attributed to health care being a luxury good, with an income elasticity larger than one and in Hall and Jones (2007) health care is explored as a superior good, with the argument that in prolonging life, investments in health care are increasing utility not only by giving better health, but by adding additional periods to the life time.

Regarding the effects of ageing the opinions in literature differ, where some found effects of population ageing on the health care expenditures e.g. are Blomquist and Carter (1997), mainly in the 1990's, but some, more recent, studies favour the measure of proximity to death rather than the actual ageing, e.g. Breyer and Felder (2006) and Werblow et al. (2007). Looking at the composition of the populations, in the lack of a proximity to death statistic, there is a consistent pattern where France has the smallest share of the population being of the age 65 or older, next Sweden then Italy and in

general the share of the population above 65 years of age is increasing. If this has a direct effect on the health care expenditures cannot be said with any certainty here, but there it can have other consequences if the trend continues, such as changes in the demand for health care.

5.2 Satisfaction, waiting lists and patient choice

When looking at the trade off formulated by Ebola (1996) between the bismarckian satisfaction and beveridgian efficiency, so far the Beveridge systems have lower spending on health care. As for the satisfaction, the share of the population reporting that they have no unmet needs, which are then assumed to be satisfied, the highest satisfaction is over all in France. This is consistent with the notion that patients are more satisfied in a Bismarck health care system. However, Italian patients are over all close to the satisfaction of French patients, while the share of Swedish patients who are satisfied is, while a large majority of all patients, considerably smaller than in Italy and France. France and Sweden are thus displaying the predicted relation with regards to patient satisfaction, while Italy is displaying a bismarckian satisfaction. This can possibly be caused by the changing of the system, from a Bismarck to a Beveridge type system in 1978. While long ago, the structure of e.g. many small single GP practises, as in France, and the freedom of choosing specialists, even if a referral is given from the GP, also as in France, where there is a longer tradition of patient choice, compared to Sweden where patient choice was starting to gradually introduced in the 1990's.

How the systems are structures may also affect how physician density is developing. In France and Italy the physician density has been increasing, while has been decreasing in Sweden. However, the physician density over all is the smallest in France, and the highest in Italy. But when looking specifically on the GP's, France has more than the double of the Italian GP's per 100 000 inhabitants and Italy has more than ten additional GP's for the same population compared to Sweden. The trends have both been over all decreasing for Italy and France, where single GP practices common, but more steadily so in Italy. In Sweden where the norm is larger GP practices there has been an increase in the GP density since the year 2000. In Sweden the amount of the health care expenditures that are spent on private care has also been increasing and according to Anell et al., (2011) the Swedish primary care system adapted to a mix of public and private provision of health care, where the private share of the primary care has been increasing, as has the total

share of the expenditures spent on the private share of the health care system, as presented in the statistics from Eurostat. In France and Italy no such recent shifts have been made, but there has been cost containment issues that have been addressed (Chevreul et al., 2010 and Lo Scalo et al., 2009, respectively), which logically also should affect the physician density.

The limited patient choice and long waiting lists are problems that are attributed to Beveridge type health care systems (Or, et al., 2010). Dealing with waiting lists has been done differently, when looking at the two Beveridge systems. Sweden have implemented a care guarantee, where the time period before seeing a doctor and receiving treatment is regulated, whereas in Italy there are large regional differences both with regards to length and management of waiting lists, which in some regions in the south still are managed manually. Implementation of measures to shorten waiting times over the next three years was implemented in 2006, but there were still large differences between regions in 2009. Looking at the statistics for Italy, however, there is a decrease in the share of population who report that they have unmet needs caused by the waiting lists, since 2006 when the measures to shorten the lists were implemented. The same thing can be seen in the statistics for the Swedish population, where the share reporting unmet needs caused by waiting lists has decreased since 2005, when the care guarantee was implemented. As stated above, comparing to France, both Italy and Sweden have a higher share of their population not being satisfied because of waiting lists, which falls into the pattern of the Beveridge Bismarck system, where waiting lists are not as great a problem in a Bismarck system (see Kroneman et al., 2006, Figueras et al, 2004).
The reasons for the Bismarck systems' higher patient satisfaction has been stated to be, apart from waiting times, accessibility to secondary care (Kroneman et al., 2006, Chu-Weininger & Balkrishnan, 2006). Both of these explanatory characteristics of satisfaction are fitting in on France and Sweden for their respective system, while Italy is harder to place in the typical Beveridge or Bismarck category, probably because of the switch from Bismarck to Beveridge not eliminated all traces of the Bismarck system.

5.3 Health status

According to Van der Zee and Kroneman (2007), as mentioned above, mortality rates, life expectancy at birth, and infant mortality had better outcomes under a Bismarck system. Looking at the three countries examined the mortality rates does not display any

large difference between Italy and Sweden. France however, has a lower mortality rate, consistent with the findings of Van der Zee and Kroneman (2007). Life expectancy at birth is not the highest in France, but in Italy. France and Sweden have as good as the same life expectancy at birth for the most recent numbers. The highest infant mortality rate is in France, which is close to the Italian one and the Swedish is the lowest. These observations are not consistent with the findings of Van der Zee and Kroneman (2007) where France would be expected to have lower infant mortality rates and longer life expectancy. However, if looking at life expectancy in more detail, French women consistently has a longer life expectancy for all age categories examined, and as mentioned above France has the largest differences between men and women. Looking at all age groups however, in most age groups France is slightly better, and when comparing for males and females separately, the life expectancy for females is mostly better in France and for males it is mostly better in Sweden.

Looking at the expected healthy life years this difference is also pertinent in France to a larger extent than in Sweden and Italy, and even more so when basing the calculation on self perceived health. Further, the Swedish population have over all the most healthy life years, and Italy the fewest. Sweden has better health outcomes compared to France when looking at other health outcome indicators as well, namely, lower maternal mortality, higher shares stating that their self perceived health is good or very good, lower over all morbidity, more healthy life years, also when based on self perceived health. France also has a lower obesity for women than Sweden, but higher for men.

When putting Italy into the comparison there is no constant pattern emerging, for life expectancy Italy is the best for the total population until life expectancy at 65 years old, where France surpasses, which is also true for the male part of the population. For females France surpasses Italy at life expectancy at 45 years old. The life expectancy compared to Sweden is consistently higher. Regarding healthy life years, the Italian numbers are the lowest, also when based on self perceived health. Self perceived health, however, Italy has the lowest share reporting very good health and the highest share reporting good health. For infant and maternal mortality Italy is in the middle, after Sweden who has the lowest. Morbidity is the lowest until the last two age groups, 65-74 and 75 and older, where Sweden has a lower morbidity. The Italian share is however either close to the Swedish number or in a middle position in the ranking. As for obesity,

Italy has the largest share of men reporting overweight or obesity, while for women the share is in the middle, but close to France, which has the lowest share for females. The crude death rates are the highest in Italy, but there is no large difference from Sweden, as mentioned above.

From the comparison of the statistics and literature, there appears to be clear characteristics connected to the type of health care system in two of the cases examined, France and Sweden, while Italy is showing characteristics from both sides, they have managed to combine the high patient satisfaction, comparable to that of France, while having health care expenditures comparable to Sweden. Has the changing of system in Italy become a combination of the two systems that could be applied, and be beneficial to other countries as well or is it simply a result of having inflated costs for health care in France, due to having the lowest out of pocket expenses for the health care, causing the French to seek medical care to a higher degree than in other countries and thus increase the health care expenditures for the government. In that case, the differences is caused by the pricing of the health care in France, not strictly because it is a Bismarck type system. With the statistics available from Italy there does not seem to be any larger difference, but the most recent number is from 2005, whereas the most recent number from France is 2011.

When comparing the inputs into the health production in each country France's higher spending and lower health outcomes does not seem to be in line with the expectation founded on economic theory described in the method section. Further, the over all physician density is lower, which is in line with the initial expectation, but when looking at only GPs there are more than twice the amount of GPs per 1000 inhabitants in France compared to Italy and Sweden. France also has the highest hospital and hospital bed density than both Sweden and Italy, but still not notably higher health outcomes and thus also this appears contradictory to the initial expectation.

Sweden is the country with the lowest inputs into the health care system in term of physician, hospital and hospital bed density. The expenditures are as just stated, close to the Italian ones. In contrast to the initial expectation, although Sweden have consistently lower inputs into health production than France, but have in many cases better health outcomes.

As for the inputs and outcomes in Italy the health care expenditures, as stated before, are close to the ones in Sweden, they have the second highest hospital and hospital bed density, and the most recent number of physician density is the highest of the three countries. The expectation would then be that the health outcomes are higher than in Sweden, which they are in some cases, but as stated above there is no clear ranking pattern comparing to the other countries.

6. Conclusion

France has the highest inputs into the health care system and Sweden has the lowest, which is consistent with having a Bismarck and Beveridge system. However, also consistent with the literature, the Beveridge system appears to be more efficient in producing health outcomes than the Bismarck system, since Sweden has, for the largest part of the health status indicators included, a better result than France. Further, still consistent with literature, France has a better patient satisfaction than Sweden. Waiting lists appear to be cause for more dissatisfaction in Sweden than in France, although some effect has been seen since the implementation of the care guarantee, that limits the time the patient have to wait before seeing specialists or receiving treatment. Italy however, is not falling into either the Beveridge or the Bismarck pattern, but has e.g. high patient satisfaction, cost containment problems, typically found in a Bismarck system, and varying health status outcomes. As for dissatisfaction caused by waiting lists Italy, like Sweden has managed to reduce it by policy implementation, which is generally a Beveridge problem. It thus appear that Italy, in having changed from one type of system to the other is facing some of the problems and some of the benefits of each type of system.

That there are similarities among the countries speaks to the notion that not only the type of system matters for the development of the health care system, but also the political process, since e.g. all the three countries are providing equal and universal access to the health care system, but also that all the countries struggles with the controversy of having health care run at a decentralised level, but still wants to have equal levels quality and access to care in the country. In spite of their many differences Sweden and France

have implemented similar policies where the administration of the health care system is moved to a regional level rather than at a county, department level, respectively.

It thus appears that which type of system and what health policies the government choose to implement may affect health in the population, and there are also cases where government policies appear to have an effect, e.g. waiting list reforms in Sweden and Italy. Still, each country is different and tendencies that appear to be caused by being one type of system may also be caused by country specific policy implementations. Regardless, there are differences in what is invested in the health care system and what health for the population is produced. The production of health does however not seem to be consistent with expectation, based on economic theory, that more inputs in the health care system will result in higher health outcomes in the population. It is probable that the system specific characteristics affect e.g. efficiency of the health care system and thus the health outcomes that the system is able to produce. In the interest of improving health production for the population international cooperation between politicians, economists and health care professionals, might be beneficial in order to develop health care systems. Each system could in this case benefit from the strengths of others and thus work towards an optimisation both with regards to meeting the needs of the population and efficiency.

However, more research is needed in order to determine exactly to what extent the government can affect the health outcomes in Sweden, Italy and France, especially since the political climate may affect what is feasible in each country and to what degree economic incentives, specific to the country, affect the decisions. Further research could also be done with regards to the extent the life style of the population affects the health status, e.g. if or to what degree the differences in obesity can be explained by food habits, and how the governments' taxations affect the food consumption. Some large differences between men and women have also been found, e.g. the difference in life expectancy in France, and further research could also be directed to finding out what causes such differences. Large differences between countries e.g. in infant mortality, that might be ethically sensitive, could also be investigated further, in cooperation with other faculties, to discern whether there under-investment in these categories of care in some countries and how one should value investments in one type of care against another.

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Appendix 1. Sweden

A.1.1 The health care system

In Sweden, the health care system is socially responsible for providing the citizens with access to good health care, and it has a public commitment to guarantee the health of the population. Since 1982 and the implementation of the Health and Medical Services Act, specifying equal access to the health care system, based on need, and stressing the concept of having equal health for all. The entire health care system is based on three basic principles, namely the principles of human dignity, of need and solidarity, and of cost effectiveness. These principals entail that everyone have the same rights and deserves to be treated with dignity, that the most needy have priority, and that costs in relation to effectiveness should be considered when facing treatment options and this should be measured by improvements to health and life quality (Anell et al., 2012).

The foundation of the Swedish health care system as it is today can be traced back to the formation of the county councils in 1862, when responsibility for national hospitals were given to the county councils. At this point, the national government still kept control over mental health institutions and the provision of ambulatory health care outside of the cities. The responsibility of the psychiatric institutions was given to the counties in the 1960's. The structure that the Swedish health care system has today is affected by this early giving of control to the counties, as well as by having a history of public funding. However, the decentralisation of the health care system does not end with the counties, since the 1970's the financial responsibility have been shifted to even more local levels, to providers within each county. However, the degree of decentralisation within each county differs. While differences in the solutions of managing and providing health care between counties are not a problem in and of itself, the self governance have some negative consequences, such as difference in treatment praxis and results, as well as coordination between the municipalities and the county. These problems have been debated during the 2000's (National Board of Health and Welfare, 2011, and SOU, 2007).

These differences are part of the reason for forces to have an increase national influence over the health care system, starting in the end of the 1990's, when there was a regional centralisation where some counties were merged to larger regions. The regions of *Västra Götaland* and the region of *Skåne* were formed in 1999, in order to increase cooperation

between different health care units. Thus the trend of decentralisation was broken and a period of regional, as well as national, centralisation started. Some of the practical demonstrations of these efforts are that government agencies are playing a larger role, e.g. the National Board of Health and Welfare, *Socialstyrelsen*, provides guidelines for treatment of chronic illnesses, decision priorities, as well as providing support in the formation of the regional and local health care programmes. Further, national action plans have been implemented, with funding from government grants, which are designed to support and fortify the local resources as well as creating incentives for more coordination between health care institutions at the local level, e.g. between primary care units and geriatric and psychiatric care (Anell et al., 2012).

In order to deal with having long waiting list there was a care guarantee implemented in 2005. The basis for the guarantee is a "0-7-90-90" rule, which means that contact with the health care system should be instant and that the patient is entitled to meet a general practitioner within 7 days of the first contact, after that a waiting time of maximum 90 days before seeing a specialist and a maximum of 90 days after that to receive treatment. This applies to all counties and was included in the Health and Medical services Act when it was changed in 2010. Further it also applies to elective procedures that are performed within the county council (Anell et al., 2012).

The social insurance in Sweden includes insurance for illness, parental insurance, a basic retirement pension, supplementary pension, child allowance, housing allowance and income support. And they are all managed by the Swedish Social Insurance Agency, which is also engaged in preventative health care measures, such as proactive measures taken to reduce bad health in order for the individual to return to working (Anell et al., 2012).

The large extent to which the social insurance covers the Swedish citizens creates a relatively small market for voluntary health insurance, which mainly is giving the insured faster access to specialists as well as avoiding waiting times for elective treatments. Even though the market is small it has been increasing from 103 000 private insurance holders in 2000 to 382 000 in 2010. However, 80% of these private insurance policies were not paid by the insured individual, but by the employer (Swedish Insurance Federation,

2011), implying that there is an extensive connection to work-related health services (Anell et al., 2012).

At the national level there are eight government agencies that have responsibilities directly relating to public health, health care and medical care. They have responsibilities ranging from insurance, Swedish Social Insurance Agency, *Försäkringskassan*, to complaints and disciplinary measures, HSAN, *Hälso- och Sjukvårdens Ansvarsnämnd*, to creating standards and norms, as well as supervising that these are followed, offering support, and data collection, National Board of Health and Welfare, *Socialstyrelsen*. Further, the benefit scheme is managed at the national level, as is the evaluation of implemented health care measures (Anell et al., 2012).

At the national level the regions and local authorities are represented, by SALAR, Swedish Association of Local Authorities and Regions, *Sveriges Kommunler och Landsting*, who is promoting the self government of the regional bodies, as well as giving assistance to the local authorities (Anell et al., 2012).

A.1.1.1 Regional structure

The regional structure of the health care system is divided into primary care, district county council care, and regional care. There are six regions created with the purpose of increasing and facilitating cooperation in tertiary medical care between the counties, which are the ones providing the health care. It is also the county councils who are responsible to plan and develop their health care organisation as to meet the changing needs of the population, e.g. with respect to resource allocation. However, regarding regional tertiary care, there is a tradition of collaboration with the national level, e.g. investment in highly specialised care or technology intense services. There is further support from the national level in the information from the National Board of Health and Welfare, which is providing the county councils with statistics on demand of health care of the population, both current and future, in order for the counties to be able to adapt their supply and resource allocation (Anell et al., 2012).

The health care responsibilities of the municipalities are to provide care for the elderly, disabled and long term mentally ill, as well as providing care for patients who have been fully treated at e.g. a hospital, but still needs to receive care in order to recover, either in

the form of a rehabilitation- or geriatric care facility or additional care at their home (Anell et al., 2012).

A.1.1.2 Primary care

Patients register with an accredited primary care provider, either private or public, that is accredited by the county or region. The primary care has no formal gatekeeping role, but patients are free to contact a specialist directly, however it is one of the stated responsibilities of the primary care to guide the patients to the right level and instance within the health care system and is usually the first health service to contact (Anell et al., 2012).

Out of 1100 primary care units about one third are privately owned, however, there are large differences depending on which county or region, ranging from half to almost none of the primary care units being privately owned (Swedish Competition Authority, 2010). The main form of primary care unit is a practice with between four and six general practitioner, GPs, and supporting staff. Having single GP practices are rare (Anell et al., 2012). However, Glenngård (2012) found that smaller practices, in the sense that there were less patients registered, were linked to higher patient satisfaction.

According to (Anell et al., 2011) the primary care system in Sweden has adapted to having a mix of public and private provision and the number of private primary care facilities have been increasing over the ten years prior to the report. The privately owned facilities are often publically funded, but this shift can also result in a shift of the objectives of the primary care, as the investors in the private section will put more focus on returns to their investments. In order to keep competition in a situation where this happens it may be necessary for the county councils to support patient choice.

The primary care accounts for more than half of outpatient visits to a doctor (National Board of Health and Welfare, 2011). There has also, since the 1990's, been a changing from inpatient care to more outpatient care, both at hospitals and the primary care units. The number of outpatient visits in 2009 per person and year was 2,8. Regarding the primary care visits these were 40 million in total in 2009, but only 14 million of these were to GPs. This corresponds to 1,5 visits per year and person to a GP, and 2,67 visits to other staff, mainly nurses. Home visits accounts for 0,14 visits (Anell et al., 2012). The

number of GP visits in Sweden is, according to Beckman and Anell (2013), low compared to other countries. Further, they state that the accessibility to GP visits has, since reforms to the primary care system regarding patient choice and privatisation, increased, and more so for members of households that has an income over the median.

A.1.1.3 Hospital care

Health care provided out of hospitals is a large part of health care provision, shown by e.g. more than half of the counties and regions health care budget in 2009 being for hospital based care. Further, only 6% of this type of care is privately provided, however they covered one fifth of all outpatient visits (Anell et al., 2012).

There are two kinds of public hospital groups, firstly, the county council hospitals, which are about 70 including both local and acute hospitals, accounting for one third and two thirds, respectively. Secondly there are 7 university hospitals, which are connected to the six regions mentioned above. Further there are six private hospitals, whereof three are not-for-profit and three are profit making. The three not-for-profit hospitals have contracts with the county councils who provide the payment for the patients (Anell et al., 2012).

The regional or university hospitals are providing a tertiary medical care and are connected to the six medical regions, as mentioned. Having these regions to concentrate the university hospitals is beneficial for coordination of tertiary care as well as for keeping the advanced medical care at a high level and maintaining clinical competence. This gives the possibility to treat rare illnesses and conditions at only seven locations, rather than at hospitals all over the country (Anell et al., 2012).

There are about 70 regional hospitals, of which six are privately owned and the rest are public hospitals. When it comes to the primary care facilities, which count over 1100, there is considerable differences as to the ratio of public and privately ownership, and it ranges from a fifty per cent split, in e.g. Stockholm and Halland, to very few privately owned primary care units in e.g. the north of the country. Accreditation by the county council is however needed in order to have a private medical practice (Anell et al., 2012).

When it comes to emergency care it has become affected by this centralisation of specialised care, and additionally the acute hospitals needs to cover a large enough population as to be able to maintain the suitable amount of medical equipment as well as medical staff. There has thus been a decrease in acute hospitals that are always open during the last 30 years, however, during the last ten years there has been an increase of competence in the paramedic staff, having at least one nurse with specialist training (i.e. one additional year to nursing degree) in each ambulance in most counties, in 2011. Further the medical equipment in ambulances has been updated, resulting in diagnosing starting already before arrival at the hospital (SALAR, 2010).

There are problems with long waiting times when seeking acute medical care, however, interventions to inform when to seek acute care and when not to, are being put in place rather than having the network of acute hospitals extended, in an effort to avoid having people seek acute care unnecessarily, and when possible redirect to the primary care network (Anell et al., 2012). From the patients point of view the waiting times, while an important factor when choosing care provider, can be outweighed by other factors, more specifically the possibility to influence the care process, according to Hjelmgren & Anell, (2007), who also suggest that improvement is needed in this area as well.

The patient pathway in Sweden is quite illustrated by the care guarantee above, first consulting a GP at the primary care unit where registered, the being referred to a specialist and receiving treatment (Anell et al., 2012). However, the patient can contact the specialist directly to make an appointment, but depending on the county or region a so called self-referral, *egenremiss*, can be required where the patient describes the condition and the specialist physician decides if they are best served by them (1177 Vårdguiden, 2013).

A.1.1.4 Patients

Patients are provided information on where to seek medical attention and how on the websites of the county council or region. There is also the service of 1177.se and the phone line 1177, which is a collaboration between all the regions and counties, where patients can look for information on conditions, and where, how and if, they should seek care. On the website there is a chat service, which, as the phone line, is open at all times,

and manned by medical staff. There are also other national and private initiatives aiming to provide this type of information (Anell et al., 2012).

A national survey on the attitudes of the population towards the health care system's performance was introduced in the 1990's. This survey, *Vårdbarometern*, is designed in such a way as to make comparisons between different counties or regions possible. There are also national quality registers and annual regional and transparent comparisons, to the end of comparing regional results in health care (Anell et al., 2012).

Since the privatisation and patient choice have increased, having information on performance, patient satisfaction etc. is becoming increasingly important and more channels for this information are available (Anell et al., 2012). However, in spite of a shown interest from the individuals to have the ability to choose their care provider and to be able to participate in the care process in general (Hjelmgren & Anell, 2007), Swedes have been found to not actively compare information when selecting their health care provider (Glenngård et al. 2011).

Patient choice of their health care provider has been gradually introduced since the 1990's. Historically, there has been no legislation to enforce patient choice, but counties have had different degrees of it, and in 1991 the Federation of County Councils gave a recommendation to let the patients choose which primary care provider and which hospital they preferred within the county. Many counties extended this to include neighbouring counties as well (Anell et al., 2012). The patient choice was limited before the privatisation and freedom to establish a medical practice. The law was formally passed in 2010, when it became mandatory for the counties and regions to have freedom of establishment of accredited providers of primary care and also making the choice of primary care provider compulsory. There were countries where this was already standard practice, the county of Halland implemented this in 2007, Västmanland and Stockholm counties in 2008, and seven others in 2009 (Glenngård et al., 2011). Thus, today registration at a primary care unit, public or private, is required, although all counties and regions, except Stockholm, are practising passive registration of no active choice is made. The passive registration is based on e.g. the last primary care unit visited or geographical proximity (Anell et al., 2012).

A.1.2 Health care system in numbers

In this section will present the statistics for the indicators of the Swedish health care expenditures, the state of the health care system and the health status of the population. Tables are found in the appendix.

A.1.2.1 Health care expenditure

In Sweden the health care expenditures accounts for 9,36% of the gross domestic product, GDP, in 2011. A percentage that since 2000 has ranged of 8,18 and 9,94%, but that in general has been close to 9% of the GDP. This corresponds to a per capita expense in 2011 of 3924,8 PPP adjusted dollars, and when looking at the time trend, the per capita expenditures has been increasing every year since the year 2000 when it was 2286,4 PPP dollars, see Table 1. The per capita expenditures on in-patient care in 2011 was 1114,5 PPP dollars, which is 28,4% of the total expenditure. The trend since 2000 of the in-patient care expenditures is also increasing, but as a percentage of total expenditure it fluctuates between 28,4% in 2010 as well as in 2011 and 31,6% in 2003. In 2000 it was 4,6%, which does not close to any of the percentages for the following years, which are in the range presented, see Table A.1 (HFA-DB, 2013).

As a percentage of GDP the spending for health care provided by the public sector amounted to 7,58% in 2011, see Table A.1. This corresponds to 81,6% of the total health care expenditures. This ratio has been quite steady around 81-82%, apart from in 2000 when it was almost 85% of the spending that went to the public care, see Table 1. When looking at inpatient care, this ratio is higher, going from being 100% in 2000 to lying around 98% in the following years. Out of the entire government spending the health care expenditures on public health is 14,78%, which since 2000 has been increasing, see Table A.1 (HFA-DB, 2013).

The private sector health care expenditures corresponded to 1,78% of GDP in 2011, lying between 1,5% and almost 2% since 2001. The private sector accounts for 19,06% of total health care expenditures in 2011, with a range from 17,96-19,06% from 2001, and in 2000 it was even lower, 15,12%, see Table A.1 (HFA-DB, 2013).

The amount of out of pocket payments from private households was equal to 16,92% in 2011 of the total health care expenditure and ranges from 13,78% in 2000 to 16,92% in

2011. When looking at the households' out of pocket payments as a percentage of the private sector expenditures, however, the number was 88,78% in 2011, with some fluctuation since 2000, when it was 91,14. The lowest point was in 2002, with 86,6%, see Table A.1 (HFA-DB, 2013).

Looking at pharmaceutical expenditures, this made up 12,1% of total health care expenditure in 2011 and there has been a decreasing development since the beginning of the 2000's. Out of total pharmaceutical expenditure the public spending accounts for 58%, a ratio that has been decreasing from 70% in 2000. However, in absolute terms the per capita spending on pharmaceuticals has been increasing from 315,9 PPP adjusted dollars in 2000 to 474 PPP dollars in 2011, see Table A.1 (HFA-DB, 2013).

A.1.2.2 Hospitals and patients

Acute care hospitals refer to short stay hospitals, which are providing diagnostics and treatment on an in-patient basis. Treatments can be either surgical or non surgical, and the hospitals are providing care for a wide range of medical conditions. Speciality hospitals are not included in this category (HFA-DB, 2013).

WHO Regional Office for Europe defines discharges as the conclusion of treatment, and upon that conclusion the patient is sent home, transferred to another facility or has died. Cases where the hospital stays were shorter than 24 hours are registered separately (HFA-DB, 2013).

In Sweden there were 77 hospitals in 2012, according to Anell et al. (2012). This is a decrease from the 89 hospitals in 2000, however, there was a strong decrease in the following three years, see Table A.2. This decrease lead to the number of hospitals per 100 000 inhabitants decreasing as well. The trend was the same for acute care hospitals. The number of hospital beds have also been decreasing and was 270,56 beds per 100 000 inhabitants in 2011, compared to 358,02 beds per 100 000 in 2000. Of those beds, acute hospital beds accounted for 201,16 beds per 100 000 in 2011. They have also been decreasing since 2000, when there were 247,58 acute hospital beds per 100 000 people, see Table 1 (HFA-DB, 2013). For Sweden there were no data on the share of hospital beds that were private from the European Health For All Database, but according to Anell et al. (2012) there are six private hospitals in Sweden, providing 1100 hospital beds.

To put this into some context, there were a total of 25 566 hospital beds in 2011, see Table A.2 (HFA-DB, 2013).

The number of in-patient discharges in 2011 was 16,45 out of a 100 population for all hospitals and since 2000 it has been close to 16%. The average length of stay, for all hospitals was 5,53 days in 2011 and it has been decreasing from an average stay of 6,66 days in 2000, see Table A.2 (HFA-DB, 2013).

Looking more specifically on acute care, or short stay, hospitals the number of discharges per 100 inhabitants was 15,51 in 2011. There has not been large fluctuation, but it has been close to 15 discharges per 100 inhabitants since 2000. The average length of stay at the acute care hospitals was 5,13 days in 2011. The development of the average length of stay has also been decreasing from 5,89 days in 2000, see Table A.2 (HFA-DB, 2013).

The average number of visits to primary or ambulatory care per person, as an outpatient, was 3,05 visits in 2011. The number of visits has been around or slightly below 3 per year since 2000, when the average number of visits was 2,8, which is also the lowest notation, see Table A.2 (HFA-DB, 2013).

A.1.2.3 Physicians

Breaking down the physicians into groups of specialties, five groups are considered, namely: general practitioners, paediatric specialities, obstetric and gynaecological specialties, surgical specialties and medical specialties. The last refers to a broad group of specialities that focus on diagnosing a non-surgical treatment of medical conditions[1]. Further, the numbers are reported as physical persons, rather than in the full time equivalent form (HFA-DB, 2013).

[1] Including: Internal medicine, cardiology, endocrinology, gastroenterology, pulmonology, respiratory medicine, oncology, gynaecologic oncology, immunology, rheumatology, neurology, oto-rhino-laryngology, radiology, infectious diseases, microbiology-bacteriology, haematology, dermatology, pathology, occupational medicine and medical interns or residents training in these specialties. The following are not included: Surgery, obstetrics and gynaecology, paediatrics, psychiatry and general practitioners.

The physician density in Sweden has been increasing from being 3,5 physicians per 1000 inhabitants in 2005 to being 3,9 physicians per 1000 inhabitants in 2010, see Table 1 (OECD, 29, 2013). The density of physicians in the medical specialities has been increasing since 2000, from 69,88 to 87,61 medical specialised physicians per 100 000 inhabitants in 2010. When looking at the surgical specialties, the increase for the same period of time has been from 49,59 to 62,52 physicians with a surgical specialty per 100 000 inhabitants. There has been an increase of obstetric and gynaecological specialised physicians from 12,47 to 14,22 per 100 000 inhabitants, still during the same time frame. For the paediatric specialties the same increase was from 9,06 to 10,36 paediatric specialised physicians per 100 000 inhabitants. Finally the general practitioners increased from 52,91 to 62,86 GPs per 100 000 inhabitants. The development in total terms, from 2000 and 2010, respectively, for the different groups were: for medical specialities 6 200 – 8 216, for surgical specialities 4 400 – 5 863, for obstetric and gynaecological specialities 1 106 – 1 334, for paediatric specialities 804 – 972 and for GPs 4 694 – 5 895, see Table A.3 (HFA-DB, 2013).

A.1.2.4 Population composition

The crude death rate per a 1000 population was 9,65 deaths in 2010, and this number has been decreasing over all since 2000, when there were 10,54 deaths per 1000 people. The total fertility rate has increased a bit, from 1,55 in 2000 to 1,9 in 2011. The part of the population participating in the labour force, was 51,88% in 2007, the most recent observation from WHO Regional Office For Europe, but the participation rate has been quite constant at slightly above or slightly below 52%, see Table A.4 (HFA-DB, 2013).

The part of the population that was between 0 and 14 years old was represented by 16,6% in 2010, and there has been a decrease of this age group since the year 2000, when it was 18,43% of the population. The part of the population aged above 65 has increased, from 17,26% in 2000 to 18,28% in 2010. Further, when looking at the male and female population separately, 17,13% of all males were between the ages zero and 14, in 2010, and 16,09% of the female population for the same age group. Compared to in 2000 this share has decreased for both male and females, which then constituted 19,13 and 17,75% of their respective populations. Further the part of the male population over 65 years old was 16,42% in 2010 and the share of the female population for the same age group was 20,12%. Comparing this with the constitutions of the male and female populations,

respectively, in 2000 there were 14,8% of the males aged over 65 years old, and 19,68% for the females, thus showing an increase in this age category for both genders, see Table A.4 (HFA-DB, 2013).

A.1.2.5 Life expectancy

Life expectancy at birth was 81,77 years in 2010, which is an increase from 79,92 years ten years earlier, see Table 2. Having reached the age of 1 the life expectancy was 80,89 years in 2010, compared to 79,19 in 2000. The predicted total number of life years is thus 81,89 for the 2010 life expectancy predictions and 80,19 for the 2000 life expectancy. Life expectancy at age 15, in 2010, was 67,08 years, giving a predicting 82,08 life years. For 2000 the same numbers were a life expectancy of 65,31, thus predicting 80,31 life years. When the individual has reached 45 years of age the life expectancy was 37,88 years in 2010, summing to 82,88 life years. In the year 2000 the life expectancy at age 45 was 36,25 years, giving a total predicted number of life years of 81,25. At 65 years old the life expectancy was 19,95 years in 2010, thus predicting a total number of life years of 84,95 years, compared to the same numbers from 2000, where life expectancy was 18,68 years at 65 years old, and a total number of 83,68 years of life. The World Health Report's estimation of total life expectancy for the year 2000 and the year 2011 was, 80 and 82 years, respectively, see Table A.5 (HFA-DB, 2013).

The male life expectancy at birth was 79,73 years in 2010, compared to 77,92 years in 2000, see Table 2. At the age of 1, the life expectancy in 2010 was 78,95 years and in 2000 it was 76,81 years, corresponding to 79,95 and 77,81 life years, respectively. When the average man is 15 years old the life expectancy in 2010 was 65,05 and in 2000 62,93, giving him a total number of 80,05 and 77,93 life years, respectively. At 45 years of age the life expectancy was 36,07 years in 2010 and in 2000 it was 34,14, summing up to 81,07 life years in 2010 and 79,14 life years in 2000. At 65 years old, the life expectancy of the average man was 18,43 years in 2010 and 16,81 in 2000, which amounts to 83,43 and 81,81 years of life, for the 2010 and 2000 numbers, respectively. The World Health Report estimated the life expectancy for males in 2000 to be 78 years and in 2011 to be 80 years, see Table A.5 (HFA-DB, 2013).

The female life expectancy at birth was 83,74 years in 2010 and in 2000 it was 82,26 years, see Table 2. At the age of 1 the life expectancy was 82,94 years in 2010 and in 2000

it was 81,49 years, in total life years the females thus have 83,94 years and 82,49 years, based on the 2010 and 2000 life expectancy, respectively. By the age of 15 the life expectancy in 2010 was 69,05 years and 67,6 in 2000, amounting to 84,05 and 82,6 years of life, respectively. When the average woman is 45 years old, the life expectancy in 2010 was 39,59 years and in 2000 it was 38,24 years, which sums the total life years to 84,59 and 83,24 years, respectively. At the age of 65 the life expectancy was 21,3 years in 2010 and 20,32 years in 2000, totalling the years of life at 86,3 and 85,32 years, respectively. The World Health Report estimated female life expectancy in 2000 and 2011 at 82 and 84 years, respectively, see Table A.5 (HFA-DB, 2013).

A.1.2.6 Healthy life years

In absolute terms, the healthy life years a woman was expected to have at birth was 70,7 years, which is an increase from 60,8 healthy life years in 2004, see Table 2. By the age of 50, the average woman could expect to have 26 additional healthy years, compared to 19,4 in 2004. When the average woman reaches 65 years old she would be expected to live healthily for an additional 15,4 years, which is an increase from the 2004 value of 11,1 healthy years, see Table A.6 (Eurostat, 2013a).

At birth the average man was expected to have 70,9 healthy life years in 2012 and in 2004 the same number was 62 healthy life years, see Table 2. At the age of 50, the healthy life years were expected to be 25,2 in 2012, compared to 19,1 healthy years in 2004. By the age of 65 the average man would be expected to be healthy for another 14 years, which is an increase from the same number in 2004, which was 10,1 years, see Table A.6 (Eurostat, 2013a).

When basing healthy life expectancy on the self perceived health, it is found that the average Swedish woman will have 80,2 healthy years at birth, in 2012, which is an increase from 2004, when it was 76,7 healthy years. At age 50 the expected healthy life years were 32,2 in 2012, and the number has been increasing compared to 2004 when it was 29,8 healthy years. By the age of 65 the average woman could expect 19,6 healthy life years, compared to 17,8 in 2004, see Table A.6 (Eurostat, 2013a).

For males, the healthy life expectancy based on self-perceived health was 77,1 healthy years at birth in 2012, compared to 74,2 healthy years expected in 2004. By the age if 50,

the self perceived health data estimates that there will be 29,5 additional healthy years in 2012, which has been increasing from 27,6 healthy years in 2004. When 65 years old, the average man could expect 16,9 healthy life years in 2012, compared to 17,8 healthy years in 2004, see Table A.6 (Eurostat, 2013a).

A.1.2.7 Self-perceived health

In 2012, the part of the Swedish population that perceived their health to be very good were 35,8% of the population, a number that has been varying between 34 and 39,1% since 2004. 45% of the population perceived their health to be good, and this share has been increasing since 2004, when it was 35,3%, see Table 2. The share of the population perceiving their health to be fair has decreased from 21,0% in 2004 to 14,7% in 2012. The decreasing trend continues for the part of the population perceiving themselves to be in bad health, from 5,6% in 2004 to 3,1% in 2012. The part who thinks they are in very bad health corresponds to 1,2% in 2012, and this share was larger in 2004 and 2005, 1,7 and 1,6%, respectively, but was then lying steady at 1% for the remaining years, see Table A.7 (Eurostat, 2013a).

The trends of the male and female parts of the populations follow the same over all time trends as the total population, with a relatively large increase in the good health category, and different levels of decreasing for the other categories, see Table A.7 (Eurostat, 2013a).

Among the males 38,2% perceived themselves to be in good health in 2012, 44,8% in good health, 13,2% in fair health, 2,9% in bad health and 0,9% in very bad health. For the women the corresponding perceptions about the own health are 33,4% in very good health, 45,7% in good health, 16,2% in fair health, 3,2% in very bad health and 1,4% in very bad health, see Table A.7 (Eurostat, 2013a).

A.1.2.8 Morbidity

In Sweden the share of the population that has a long-standing illness or health problem has decreased since 2004, from being 49% to being 33,8% in 2012, see Table 2. Looking closer at some age groups, there were 17,9% of the population between 16 and 24 years old suffering from a long-term illness or health problem in 2012. Among the 24-34 year

olds, 21,6% had a long-term health problem, and the same number for the 35-44 years olds was 28,3%, both in 2012. Further for the 45-54 year olds 33,7% had a long-term health issue. Among the 55-64 and 65-74 there were 44 and 42,9%, respectively with a long-term illness or health problem. Finally, for the persons aged 75 or older, 53% suffered from a long-term illness or health problem, see Table A.8 (Eurostat, 2013a).

For all age groups there has been a marked decrease since 2004, and the 2004 percentages are, 27,5% for 16-24 years old, 33,4% for the 25-34 year olds, 39% for the 35-44 year olds, 48% of the 45-54 year olds, 62% for the 55-64 years olds, 71% of the 65-74 years olds and 80,4% for 75 years and older, see Table A.8 (Eurostat, 2013a).

Looking at the male population separately, a total of 30,4% had a long standing illness or health problem in 2012, a decrease from 2004, when there were 47,4%. The corresponding numbers for the age groups are presented for 2004 and 2012, respectively: for 16-24 year olds there has been a decrease from 27,8 to 15,1%, for 25-34 year olds a decrease from 33 to 20,8%, for 35-44 year olds a decrease from 36,3 to 27,2%, for 45-54 year olds a decrease from 48,7 to 33,7%, for 55-65 year olds a decrease from 60,1 to 40,3%, for 65-74 year olds a decrease from 68,9 to 38,3%, and for 75 years and older a decrease from 77,9 to 53,1%, see Table A.8 (Eurostat, 2013a).

For the females the percentages with a long standing illness or health problem, for the years 2004 and 2012, respectively were: for all age groups a decrease from 52 to 37,2%, for the ages 16-24 a decrease from 27 to 20,8%, for the ages 25-34 a decrease from 33,9 to 22,4%, for the ages 35-44 a decrease from 41,19 to 29,4%, for the ages 45-54 a decrease from 49,4 to 40,3%, for the ages 55-64 a decrease from 64,1 to 47,7%, for the ages 65-74 a decrease from 73,1 to 47,4%, and for the age 75 or older a decrease from 81,9 to 54% of the population, see Table A.8 (Eurostat, 2013a).

Of the people suffering from a health problem, 9,4% stated in 2012 that they have some long standing limitations in their usual activities due to their illness or health problem. This is a decrease from 2004 when there were 13% of the population stating the same thing. There were fewer people stating in2012 that they had severe problems, 6%, but more when looking at the 2004 share, which was 13,9%. Since both the share stating that they have severe and some problems have increased, the share stating that they have no

problems have increased, from 73,1% in 2004 to 84,6% in 2012, see Table A.8 (Eurostat, 2013a).

As for the male half of the population, 7,9% stated that they experience long term limitations in their usual activities, caused by an illness or health problem. This has decreased since 2004, when 11,7% stated the same thing. The part stating that they have severe limitations accounted for 5% of the males having a long-term health problem, which is also a decrease from the 2004 share of 11,9%. Thus, the share having no limitations has been increasing since 2004, when there was 76,3% having no limitations, to 87,1% in 2012, see Table A.8 (Eurostat, 2013a).

Among the females, the same numbers are, for some limitation 11% in 2012, a decrease form 14,2% in 2004. For severe limitations, there were 6,9%, also this is a decrease from 2004, when there were 15,8% stating the same thing. As for the share stating that they experience no limitation in their usual activities due to a long-standing health issue there were 82,1% in 2012, an increase from 69,9% in 2004, see Table A.8 (Eurostat, 2013a).

In 2011, 53,6% of the male Swedish population reported that they were overweight or obese, i.e. had a body mass index, BMI, of 25 or higher. There has been an increase since 2004, when the same self-reports stated that 50, 3% were overweight of obese, see table A.8.34 (OECD, 26, 2013). For women, the same self reported numbers amounted to 39,0% of the women reporting a BMI of 25 or higher. Comparing this to the 2004, when 35,4% of the women reported that they were overweight or obese, there has been an increase in obesity, see Table A.8 (OECD, 25, 2013).

A.1.2.9 Infant and maternal health

Infant mortality in Sweden has been decreasing since the year 2000, when it was 3,42 infants per 1000 live births that died, to a corresponding number of 2,54 in 2010, see Table 2. Breaking it down and looking at males and females separately, the development has been that in 2000 there were 3,99 deaths per 1000 live births for males, compared to 2,69 in 2010. Among females there were 2,81 deaths per 1000 live births in 2000 and 2,38 deaths in 2010, see Table A.9 (HFA-DB, 2013).

The maternal death rate has also been decreasing since 2000, from 4,42 deaths per 100 000 live births, to 0,89 deaths per 100 000 live births in 2011. However, it is of note that the maternal death has fluctuated some, and was in 2010, 2,59 deaths per 100 000 live births, and the maximum value during the time period included here was 5,92 in 2005, see Table 2 (HFA-DB, 2013).

The number of abortions per 1000 live births was 342,54 in 2000. During the following eight years it stayed in the low and mid- 340's and then it has been below, and was 337,75 in 1000 live births in 2011. However, the years before there were 325,95 abortions per 1000 live births, see Table A.9 (HFA-DB, 2013).

In 2011, 98% of Swedish infants were vaccinated against diphtheria, tetanus, pertussis and poliomyelitis, 96% against measles, 23% against tuberculosis, 98% against invasive disease due to haemophilius influenzae type b, and 29% against hepatitis b. Vaccination against rubella was 97% of all infants in 2010, see Table A.9 (HFA-DB, 2013).

A.1.2.10 Patient satisfaction

Here the percentage of the respective populations that stated that they had no unmet needs, with regards to the medical examination they received, will be presented and this measure will be considered as satisfaction, i.e. the assumption is that if there are no unmet needs to declare, the patient is satisfied with the examination and care received. This is in all cases the vast majority of the population, and the remaining categories for dissatisfaction are several, and thus the percentage for each category will be rather small, however, the numbers for waiting lists will be presented, since this is one of the noted differences between the structure of the different health care systems. The remaining categories will be treated as having unmet needs in general.

Among the total population there were 88,5% of the population that stated that they had no unmet needs in terms of the medical examination they received in 2012, which means that there were a total of 11,5% that reported that they had unmet needs. In 2004 there were 87,2% with no unmet needs, a number that decreased to 84,7% in the following year, since then it has been increasing. There were 0,8% in 2012 that were unhappy with the service they received due to long waiting lists. In 2004 there were 1,7% of the

population stating the same, and there was an increase in 2005 to 2,1%, and after that it has been decreasing, see Table 3 (Eurostat, 2013b).

Looking at two broad age groups, 16-64 years old and 65 and older, the number of satisfied patients was 86,8% in 2012, for the ages 16-64. The development since 2004 has been varied, with maximum and minimum values of 87,4% in 2010 and 83,5% in 2006. For this age group a total of 16,5% stated that they had unmet needs in 2012, and of those, there were 0,9% that stated that the cause of their unmet need was the waiting list. For the older age group, 65 years and older, 93,6% had no unmet needs to declare in 2012, a number that has been increasing over all since 2004, when it was 90%. This entails 12,4% of this age group who were not satisfied with their health care experience in 2012, and 0,7% of the age group stated that their unmet need was due to the waiting lists. This last number has been decreasing over all since 2004, when it was 1,6%, see Table A.10 (Eurostat, 2013b).

Appendix 2. France

A.2.1 The system

Historically the French health care system has been marked by having many actors both in providing and the funding of health care. Today however, it is defined by Chevreul et al. (2010) as a mix, a Bismarck system with Beveridge goals. It is also described as a system where patient choice is extensive and the coverage of the benefit system is generous.

Over the last 20 years the French health care system has undergone several reforms as to the institutional organisation, most significant of those were the 1996 "Juppé reform" and the 2004 Health Insurance Reform act. The former of the reforms gave the parliament control of the health care system as well as the resources. It also aims to define the roles of the state and the SHI, the statutory health insurance, of which the means of funding were changed, as the part of the funding that was based on income now was levied like a tax on the total income. Further, this reform added to the role of the regions, partly by the creation of several new regional institutions, while at the same time, decisions about the policy directions and targets for expenditures were now being made by the parliament. With the latter of the reforms, the parliament was given increased control in the settings of health priorities, the SHI was given national management and an "alert committee" was established, which if the SHI's, parliamentary approved, maximum expenditure exceeded by more than 1%, can request a financial rescue plan from the Directorate of Social Security (Chevreul et al., 2010).

In France, as in many other countries the costs of the health care system is increasing, and since 2000, at a higher rate than the national wealth. Therefore, the French government have been arguing for implementing cost containment objectives into future health care reforms (Chevreul et al., 2010).

According to Dormont et al. (2006) the ageing population does not affect the health care expenditures at a macro level, except for when proximity to death is taken into account, but that GDP has a large impact. The effect of the GDP on health care expenditures, and the lack of effect of the age structure of the population were also found in e.g. Bac and Cornilleau (2002).

A.2.1.1 Regional structure

Historically, the French health care system has been rather centralised, especially with regards to policy and financing, there has been an unwillingness to reduce central control and delegate these responsibilities to the regions. However, the process of regionalisation started in the 1990's and until 2010, there were many regional institutions with a specialised area of health care to manage in each of the regions. In 2010, the Regional Health Agency, *Agence Régional de Santé*, ARS, was created, it had been conceptualised earlier, in the 2004 Health Insurance Reform Act, but had not been implemented then. ARS merged several of the regional and departmental institutions charged with providing and funding the public health care, in order to achieve higher efficiency and improving the response to the needs of each region. More specifically the ARS is charged with monitoring the health status of the population in the region, and carrying out the health policies for the services regarding occupational health, maternal and child care, and for the health services at schools and universities. Further, they are charged with evaluating the education of the employees in the health care sector and approving new treatments for elderly and disabled, as well as charges regarding health and environment, such as monitoring water and air quality (Chevreul et al., 2010).

In each of the departments there is a local delegation, *délégation territorial de l'agence regionale de santé*, representing the ARS, since each ARS covers several departments. This delegation is charged with supporting the departments and implementation of regional policies set by the ARS. The departments itself has certain responsibilities with regards to health care that are not under the responsibility of the ARS. These are care of the elderly and disabled, and preventative measures for certain diseases, such as sexually transmitted diseases, cancer and tuberculosis (Chevreul et al., 2010).

A.2.1.2 The Social Health Insurance

The foundation of the statutory health insurance, SHI, is laid after the Second World War, and is developed from being a system of several individual insurance funds connected to employment to being a system that covers as good as the entire population. The procedures and technologies that are listed by the SHI also serves as an implicit basic care package (Chevreul et al., 2010).

The system of universal coverage were established in 1999 CMU Act, *Couverture Maladie Universelle*, or Universal Health Coverage Act, which was implemented January 1st 2000. The coverage of the SHI is, while universal, not covering 100% of all expenses. A part of the cost is left to the patient and how large a part the patent has to pay depends on the type of care. There are exemptions from this, where costs are covered completely, and there are three categories of exemptions. Full cost coverage is provided firstly when there is an issue with health status, most commonly when suffering from one of 30 defined long-term illnesses, ALD, *affection de longue durée*, secondly when there is a exemption due to the nature of the treatment, which covers certain in-hospital treatments and thirdly, when there is ground for exemption due to several categories linked to the person, such as work related incidents, disabled children, pensioners and women pregnant more then five months. However, on average the SHI covers 75% of the costs of the procedure they have approved, but there are no exemptions on economic grounds. There is voluntary health insurance, VHI, which increases the coverage to 100% (Chevreul et al., 2010, and Thomson & Mossialos, 2004).

Since no exemptions are made on economical ground from the normal SHI coverage the *Couverture Maladie Universelle Complémentaire* was introduced in 2000 as a free insurance plan. It offers a higher level of insurance coverage, with no out of pocket payments, to the poor, and is designed to increase access to health care for individuals with an income below a certain level (Grignon et al., 2008).

The services that are covered by the SHI have previously been steadily increasing as the general practice has been to add procedures, devices and pharmaceuticals have been added to the benefit package, but the old items have not been taken off, even if new more effective solutions have been found. However, more recently debate has lead to an acceptance of reducing the included medical services and goods covered, and a reduction of what is included (Chevreul et al., 2010).

There are separate lists for what is included in the SHI coverage, depending on if it is regarding in- or out-patient care, specifying what medical procedures, devices and materials, as well as which pharmaceuticals and drugs are included in the benefit scheme, and thus refunded by the SHI. New and innovative procedures are usually first used in

hospital, given that they have been approved for market use, *authorisation de mise sur marché*, AMM. After introduction in hospitals the procedure may be included for general practice on one of the SHI lists (Chevreul et al., 2010).

A.2.1.3 Primary care

Reforms have been made to bring more structure to the primary care, which have historically had a large number of provider and financers, like the entire system. In 2004 the current framework for the primary care was established, according to which public health is a responsibility of the state, and also that the regions would manage the organisation of the provision of public health care, since 2009 through the ARSs (Chevreul et al., 2010).

The provision of primary care is given by either self employed medical professionals or in an ambulatory care facility by salaried professionals, the latter being less common. However, incentives for people to consult their GP as a first step were put into place in the end of the 1990's, when the GPs were given a partial gatekeeping role. The health care professionals that are self employed work under a set of agreements between the SHI and representatives for the medical professionals, concerning the conditions for practice, charging rates etc. (Chevreul et al., 2010).

The better part of all out-patient care, including rehabilitating care after e.g. surgery, is also provided by the physicians that are self employed with their own practice, both when it comes to GPs and specialists, and in 2009 these self employed physicians numbered 122 500. Circa 40% of all self employed physicians are part of a group practice, which usually refers to having common capital investments, not the sharing of patient lists (Chevreul et al., 2010).

Further, French GPs are seeing on average 1400 different patients in a year, and about 15% of those are home visits. The number of patients seen by specialist depends largely on the specific specialisation, but generally the specialist spends 55% of his or her time on doing consultations and 45% on diagnostics and treatments. When it comes to nurses there were 70 000 self employed in 2008, who were spending two thirds of their time on home care and one third on e.g. injections, and other care that the patients cannot perform themselves (Chevreul et al., 2010).

Having this large amount of single, or small, practices creates a coordination problem as well as a continuity problem of the services provided by the physicians, which in turn results in, not only, over prescription and subsequent waste, but also a lack of clear pathways and insufficiencies as well as inconsistencies in quality of the services provided. To counteract this the GPs were given gatekeeping properties, as mentioned above, and provider networks were established as a way of creating forums for coordination between self employed health professionals, as well as between the health professionals and hospitals. Both of these reforms were implemented in the later half of the 1990's (Chevreul et al., 2010). However, the gatekeeping role of the GPs mainly entails directing patients to their GPs as a first step, which have not had any effect on the contracts for GPs. Additional education and training should be, but have not yet been implemented (Or et al., 2010).

However, the two main problems the ambulatory care sector faces are those of efficiency and the decreasing work force of the health care sector. The ARS is in charge of both of these issues, but since it is still a new institution, impemented in 2010, there are concerns about the control it can exercise over the ambulatory care sector, and impose stricter regulation on it, specifically since many of the professionals in this sector oppose this kind of changes (Chevreul et al., 2010).

A.2.1.4 Hospital care

The share of acute hospital care that are provided in public hospitals is 75%, while profit making private hospitals mainly specialises in a narrower range of technical procedures where they can make profits. This entails e.g. invasive diagnostic procedures. The not-for-profit private hospitals are providing the better part of cancer treatment.

The share of acute hospital care that are provided in public hospitals is 75% and the public sector performs a third of all surgical procedures. The surgical services offered are wide ranging, and include the complex procedures. Profit making private hospitals mainly specialises in a narrower range of technical procedures where they can make profits, entailing e.g. invasive diagnostic procedures. When it comes to surgery, the profit making hospitals also have a narrow range of provision, mainly focusing on procedures that are routinely performed and where the length of stay is predictable as well as short.

Examples are surgeries for cataract, varicose vein and carpel tunnel, which are areas where the private profit making sector are performing a majority of surgeries. The not-for-profit private hospitals are providing the better part of cancer treatment, and their surgical activities are also mainly related to cancer (Chevreul et al., 2010).

The French health care regulations regarding emergency care focuses on the following areas, emergency care before arrival at hospital, the organisation of emergency units at the hospitals, and the availability of hospital beds after admission by the emergency units. The pre-hospital emergency services consist of the SAMU, *Services d'Aide Médical Urgente*, which is the emergency call centre and the continuity of care system, PDS, *Permanance des Soins*. The SAMU provides the immediate emergency care, and the call centre is shared by the police and fire department. The PDS are providing timely care to patients after the closing of ambulatory care centres, and is largely based on the voluntary participation of doctors, who are given financial incentives to provide their services (Chevreul et al., 2010).

In the hospitals there are 630 emergency units, and operating such a unit requires certification, which is done in three steps, general, local and specialised emergency units. The category general refers to the ability to provide care for every kind of emergency and the public sector provides almost all of the units with this classification (97%). The local classification has a more limited range of capacity both with regards to physical and human resources, but can refer the cases they are unable to provide the proper care for. The specialised category has a specialisation either with a type of pathology or group of patient, e.g. paediatric emergencies, or heart attacks (Chevreul et al., 2010).

A.2.1.5 HAD

During the last 30 years there has been a development towards, and promotion of, alternatives to full time hospitals stays (Chevreul et al., 2010). This has lead to the development of so-called hospitals at home, *Hôpitaux à Domicile*, HAD, which has become a network for care within the scope of the larger health care system (Com-Ruelle & Afrite, 2008). This entails sending the medical staff to the home of the patient instead of having the patient stay at the hospital, mainly in cases of rehabilitation and follow up situation or regarding diseases where the patient is in need of technical assistance (Chevreul et al., 2010), mainly for the areas of palliative care, cancer and perinatal care.

This service is provided either as a unit of the hospital or as an independent not-for-profit organisation, the majority being the not for profit organisations (Afrite et al., 2009). The three main notions of the HADs are that, firstly, it is a substitute for cases where in-patient hospitalisation would otherwise be needed, resulting in complete avoidance, shortening or delay of the stay in the hospital. Secondly, it plays into the global plan of the health care, being a part of the system and a viable option to in hospital stays, and thirdly, that there is coordination, both between the HAD and the hospitals, but also between the personnel providing the care within the HAD (Chevreul et al., 2005). HADs have also been proven to be a less costly alternative to acute care (Afrite et al., 2007).

There were 233 HAD units in 2008, with a maximum of 8400 patients at once, and the number of units are increasing, largely due to increased demand from the ageing population (Chevreul et al., 2010).

A.2.1.6 Evaluation of quality

Evaluation of the health care quality and medical practice began in the 1990's, a practice that has, like in many other countries, become increasingly important (Saltman & Figueras, 1996). Specific evaluation of the quality of hospital care has been done since the 1990's, when it became a matter of public interest and debate after the press made comparisons pointing out that there were differences in the quality of care provided by different hospitals. Since 1996 a periodic auditing, called certifications, has been in place covering all hospitals and clinics, where an external assessment is made of quality and safety on areas such as the infrastructure of care, but the quality of care outcomes are not included to any extent. There have been two waves of evaluation, the first started in 1996 and the second in 2005, however, there are optional audits covering some high risk procedures, that were put into place in 2004 (Chevreul et al., 2010).

The physicians are, and have been, entirely free to choose where they want to practice, causing long-term geographical differences in the access to health care. There are also differences in the availability of personnel for acute care, but notably not in the physical capacities where regional differences are lower (Chevreul et al., 2010).

A.2.1.7 Patients

The general patient pathway is for the patient as a first step to contact their GP, or alternatively to contact the specialist at one, but at an additional fee that is not charged if they receive a referral from the GP. The patient is free to visit any specialist, but an additional fee may be charged in certain cases if the patient chooses to visit another specialist than the one he or she is being referred to. After receiving treatment, in hospital if necessary, either if it is in- or out-patient treatment, when it is appropriate the patient can receive treatment in the home, HAD (Chevreul et al., 2010).

By law, the French patients are to receive information about the procedures and care they are receiving, which is to be provided "faithfully and understandably" and according to court ruling these criteria are not met by the simple signing of a document. Even though this is commonly done, the way of relaying the information given to the patient prior to any medical procedure is instead noted in the patient's chart, which the patient has access to (Chevreul et al., 2010).

Patient choice is one of the defining characters in the French health care system, but in areas that are sparsely populated, the annual report of 2006 from the high council for the future of the health insurance, *rapport annuel du Haut Conseil pour l'Avenir de l'Assurance Maladie*, HCAAM, stated that there is difficulty finding a medical professional that does not charge an extra fee for his or her services, a practice known as "extra billing", and that when extra billing was not possible, private physicians would refuse 40% of patients, if the physician usually billed extra.

A.2.2 Health care system in numbers

In this section will present the statistics for the indicators of the French health care expenditures, the state of the health care system and the health status of the population. Tables are found in the appendix.

A.2.2.1 Health care expenditure

The French health care expenditures in 2011 amounted to 11,64% of the GDP and over all since 2000 it has been increasing, from being 10,08%. The highest notation was in 2009, at 11,74% of the GDP. This corresponds to a per capita expenditure of 4117,9

PPP adjusted dollars in 2011, and the development of this has been increasing every year since 2000, when the per capita expense was 2544,4 PPP dollars, see Table 1. The per capita expenditure on in-patient care in 2011 was 1528,8 PPP dollars and it has been increasing since 2000 when it was 975,7 PPP adjusted dollars per capita. As a percentage of total health care expenditure the in-patient care represents 37,1% in 2011, and the share has been between 38,3% in 2000 and 36,5% in 2004, see Table A.1 (HFA-DB, 2013).

The public sector health expenditures amounted to 8,92% of GDP in 2011. The share of GDP has been lying between 8 and 9% since 2000, see Table A.1. As a share of total health care expenditure the public spending accounts for 76,8% in 2011, but the share has been decreasing since 2000 when it was 79,4% of total expenditures, see Table 1. Regarding the share of in-patient care tat is public the percentage has also been decreasing somewhat since 2000, when it was 94,4% and in 2011 it was 93%. When looking at the public sector expenditures on health care as part of the government budget, this sector represents 15,94% of the total government expenditures. The share designated to the public sector health care has been between 15,5 and 16,5% of the government expenditure since the year 2000, see Table A.1 (HFA-DB, 2013).

The private sector expenditures on health corresponded to 2,7% of GDP and there has been a slight increase since 2000, going from being 2,08% to being 2,7% of GDP three years in a row, 2009-2011. As a percentage of total health care expenditures the private sector represented 23,26% in 2011 and the private share has been increasing since 2000 when it was 20,62%, see Table A.1 (HFA-DB, 2013).

Households have paid out of pocket amounts corresponding to 7,46% in 2011 of total health care expenditures and these expenses has been ranging between 6,5 and 7,5% of total expenses. As a share of privately provided care the households out of pocket payments accounts for 32,08% in 2011. In the beginning of the 2000's it was higher, around 34-35% of private sector expenditures, and since 2003 it has been around 31 and 32,5%, see Table A.1 (HFA-DB, 2013).

The pharmaceutical expenditures represents 15,6% of total health care expenditures in 2011 and ranges between 15,6 and 16,8% since 2000. His corresponds to a per capita

spending of 641,1 PPP adjusted dollars in 2011 and this expenditure has been increasing since 2000, when it was 419,7 PPP dollars. The share of pharmaceutical spending that is public is 68% in 2011. There is some fluctuation to this share, but the range is 66,9% in 2000 to 70% in 2005, see Table A.1 (HFA-DB, 2013).

A.2.2.2 Hospitals and patients

Acute care hospitals refer to short stay hospitals, which are providing diagnostics and treatment on an in-patient basis. Treatments can be either surgical or non surgical, and the hospitals are providing care for a wide range of medical conditions. Speciality hospitals are not included in this category (HFA-DB, 2013).

WHO Regional Office for Europe defines discharges as the conclusion of treatment, and upon that conclusion the patient is sent home, transferred to another facility or has died. Cases where the hospital stays were shorter than 24 hours are registered separately (HFA-DB, 2013).

In France in 2011 there were a total of 2 698 hospitals, and 1876 of those were acute care hospitals. In the number of hospitals over all, there has been a steady decrease since 2000, when there was a total of 3 120 hospitals, where of 2 172 were acute care hospitals, which also have bee declining in numbers every year, see Table A.2. As for hospital density there were 4,14 hospitals per 100 000 inhabitants, and 2,88 acute care hospitals. There has also been a decrease with regards to this, from 5,3 hospitals, in total, in 2000 and 3,69 acute care hospitals per 100 000 inhabitants. As for the number of hospital beds provided there has also been a decrease since 2000, when there were 822,27 hospital beds per 100 000 inhabitants, to there being 637,66 beds per 100 000 inhabitants in 2011. The same trend can be seen for acute hospital beds, where there has been a decrease from 419,07 to 342,92 beds per 100 000 inhabitants between 2000 and 2011, see Table 1. Of the hospital beds 37,75% were privately owned in 2011, which is an increase from 34,38% in 2000. Looking at the actual number of private hospitals beds, however, reveals a decrease from 166 497 to 156 744 in 2011, see Table A.2 (HFA-DB, 2013). Implying that the public sector is diminishing the hospital stock at a faster rate than the private sector.

There were 19,01 discharges per a 100 population in 2009 in France and, for the observations available i.e. 2006-2009, the number was close to 19. The average length of stay was 12,6 days, for all hospitals in 2011 and the trend has been decreasing since 2001-2005, when the average was 13,3. In 2000 the average was slightly below that number, see Table A.2 (HFA-DB, 2013).

In acute care hospitals there was 16,45 discharges per 100 inhabitants in 2009, and for the other observations available, 2006-2009, the number was varying close to 16,5 discharges per 100. The average length of stay was 5,1 days in 2011, and there has been no large change from the previous years, since the 5,6 days of 2000, see Table A.2 (HFA-DB, 2013).

The average number of primary or ambulatory care visits per person was 6,8 visits in 2011, which is close to the 2000 average of 6,9 visits. However, the peak was in 2001 at 7,4 visits and after that it has been decreasing, see Table A.2 (HFA-DB, 2013).

A.2.2.3 Physicians

Breaking down the physicians into groups of specialties, five groups are considered, namely: general practitioners, paediatric specialities, obstetric and gynaecological specialties, surgical specialties and medical specialties. The last refers to a broad group of specialities that focus on diagnosing a non-surgical treatment of medical conditions[2]. Further, the numbers are reported as physical persons, rather than in the full time equivalent form (HFA-DB, 2013).

In 2012 there were a total of 318,23 physicians per 100 000 inhabitants in France, which was an increase from the year before when there were 307,03 physicians for the same amount of people, see Table 1. In absolute numbers this corresponds to a total of 199 920 in 2011 and 201 811 in 2012. Looking at the development in physicians per 100 000 inhabitants for the different specialities between the years 2000 and 2012, the medical

[2] Including: Internal medicine, cardiology, endocrinology, gastroenterology, pulmonology, respiratory medicine, oncology, gynaecologic oncology, immunology, rheumatology, neurology, oto-rhino-laryngology, radiology, infectious diseases, microbiology-bacteriology, haematology, dermatology, pathology, occupational medicine and medical interns or residents training in these specialties. The following are not included: Surgery, obstetrics and gynaecology, paediatrics, psychiatry and general practitioners.

group of specialities has increased from 77,59 physicians per 100 000 inhabitants to 84,36 in 2012. The surgical specialities has gone from 42,93 physicians per 100 000 inhabitants to 46,51, for the same time period. For the obstetric and gynaecological specialties the 2000 density per 100 000 inhabitants was 12,02 physicians and 12,73 in 2012. Paediatric specialties increased from 10,87 physicians per 100 000 inhabitants to 12,01 physicians in 2012. Finally the general practitioner density decreased during the same period from 166,71 GPs per 100 000 inhabitants to 160,53 physicians. In absolute number of physicians these densities corresponds to, for each group of specialities and for 2000 and 2012, respectively: for medical specialities 45 696 – 53 496, for surgical specialities 25 282 – 29 498, for obstetric and gynaecological specialities 7 080 – 8 076, for paediatric specialities 6 404 – 7 615 and for GPs 98 183 – 101 803, see Table A.3 (HFA-DB, 2013).

A.2.2.4 Population composition

The crude death rate per a population of 1000 has varied between approximately 8,5 and slightly above 9 and in 2009, which is the most recent observation it was 8,58 deaths per 1000 people. The total fertility rate has been slightly increasing from 1,89 to 2,03. The part of the population that is participating in the labour force has been varying around 44,5%, but in the most recent observation in 2007 it was 44,24% of the total population, see Table A.4 (HFA-DB, 2013).

The share of the French population between the ages 0 and 14 was 18,37% in 2009, compared to 18,83 in 2000 the decrease of the population share in this category has not been large. As for the share of the population aged over 65 years old, this category represented 16,74% of the population in 2009, compared to 16,08% in 2000, from which it has been increasing steadily. Looking closer at the age category between 0 and 14, if separating the population by gender, of the male population 19,42% belonged in this category in 2009. The same share for the female population was 17,39% for the same year. The development since 2000 has been similar for both groups, where there has been a small decrease from 19,84 and 17,87%, respectively for males and females. As for he share of the population over 65, the male population has seen an increase from 13,42 to 14,26% between the years 2000 and 2009. For the female population the same development over the same period has been an increase from 18,58 to 19,07% of the female part of the population, see Table A.4 (HFA-DB, 2013).

A.2.2.5 Life expectancy

The life expectancy in France was 81,76 years in 2009, compared to 79,35 years in 2000, see Table 2. The life expectancy at the age of 1 was 81,05 in 2009 and 78,96 in 2000, giving a total of 82,05 and 79,96 life years, respectively. By the age of 15 the life expectancy was 67,18 in 2009 and in 2000 it was 64,87 and this corresponds to a total of 82,18 and 79,87 life years, respectively. The life expectancy at 45 years old was 38,35 in 2009 and 36,35 in 2000, with a total of 83,35 and 81,35 life yeas, respectively. At the age of 65 the life expectancy was 21,3 years in 2009 and in 2000 it was 19,48, which corresponds to a total number of life years of 86,3 and 84,48 years, respectively. The life expectancy estimations by the World Health Report were 79 years in 2000 and 82 years in 2011, see Table A.5 (HFA-DB, 2013).

For the average French man the life expectancy at birth was calculated to be 78,19 years in 2009 and 75,49 years in 2000, see Table 2. When 1 year old the life expectancy was 77,49 years in 2009 and 74,87 years in 2000, with a corresponding total of 78,49 and 75,87 life years, respectively. By the age of 15 the life expectancy was 63,63 years in 2009, compared to 64,87 years in 2000, resulting in a total of 78,63 and 79,87 life years, respectively for 2010 and 2000. When the average French man is 45 years old he is expected to live for an additional 35,16 years in 2009 and 32,99 years in 2000, thus predicting 80,16 and 77,99 life years, respectively. At age 65 the life expectancy was 18,86 years in 2009 and 16,94 years in 2000, summing up to 83,86 and 81,94 life years in total, respectively. The estimated life expectancy, by the World Health Report, was 76 years in 2000 and 78 years in 2011, see Table A.5 (HFA-DB, 2013).

The French women have a life expectancy at birth of 85,19 years in 2009 and 83,15 years in 2000, see Table 2. By the age of 1 the life expectancy was 84,45 in 2009 and 82,46 in 2000, thus giving a total number of 85,45 and 83,46 life years, respectively. The average 15 years old woman in 2009 had a life expectancy of 70,57 and in 2000 it was 68,62, predicting a total number of 85,57 and 83,62 life years, respectively. At the age of 45 a woman was expected to live for an additional 41,32 years in 2009 and 39,56 years in 2000, thus living until 86,32 and 84,56 years old, respectively. Then, by the age of 65, the life expectancy was 23,33 in 2009 and in 2000 it was 21,59 years, thus giving the average woman a total of 88,33 and 86,59 life years. Finally, the World Health Report's estimated

life expectancy was 83 years for women in 2000 and 85 years in 2011, see Table A.5 (HFA-DB, 2013).

A.2.2.6 Healthy life years

In absolute terms the average French woman is expected at birth to live healthily for 63,9 years in 2012. Since 2004 the expected healthy life years have varied between 63,4 and 64,6 healthy life years at birth, see Table 2. Healthy life years at age 50 were 20,1 in 2012, and it has been quite steady since 2004, when it was 20 years, apart from a dip in 2009 – 2011. By the age of 65, the additional healthy life years were 10,4 in 2012, which is a slight increase from 10 healthy years in 2004, but during the years in between there was a decrease, with the lowest number 9,6 in 2006, see Table A.6 (Eurostat, 2013a).

The healthy life expectancy for the average man was 62,6 years in 2012, compared to 61,5 healthy life years in 2004. However, between 2005 and 2012 the variation has been between 62,3 and 62,8 healthy life years, see Table 2. The number of healthy life years from age 50 has increased over all for males since 2004, when it was 17,6 years, compared to 19 healthy years in 2012. The healthy life years has increased also from the age of 65, from 8,5 healthy years in 2004 to 9,5 healthy years in 2012, see Table A.6 (Eurostat, 2013a).

The healthy life years, when calculated using self-perceived health, predicts 77,6 healthy years for females at birth in 2011. The over all trend has been increasing since 2004, when 74,8 healthy years were expected. By the age of 50, 30,4 healthy additional years were expected in 2011, and this has also had an increasing trend since 2004, when the healthy years were expected to be 27,6. When 65, the women could expect 18,3 healthy years in 2011, an increase from 2004 and 15,9 additional healthy years, see Table A.6 (Eurostat, 2013a).

When calculating the healthy life expectancy for men, using self-perceived health, the expectation is 73,2 healthy years in 2011, with an increase from 2004 when it was 69,7 healthy years that were expected. When reaching the age of 50, 26,5 additional healthy years were expected, also this category increasing since 2004, when it was 23,6 healthy years. By the age of 65, the additional healthy life years were expected to be 15,4, when

calculated using self-perceived health, which also has been increasing since 2004, when 13,1 healthy years could be expected, see Table A.6 (Eurostat, 2013a).

A.2.2.7 Self-perceived health

In France, 25,2% of the population perceived themselves to be in very good health in 2012, a share that has been fluctuating since 2004, with a top notation of 25,2% in both 2012 and 2004, and a bottom notation of 22,6 in 2011. As for the category good health, 42,9% of the population puts themselves there. Since 2004 there was an increase until 2011, from 42,4 to 45,0, and after that a drop to the 2012 level, see Table 2. Further, 23,4% of the population found that they were in fair health in 2012, and since 2004, there has been an over all increase, from 21,6% in this category. 7,4% of the population found that they were in bad health in 2012, a decrease from 2004, when there was 8,6% in this category. Finally, 1,1% found that they were in very bad health in 2012, which is an over all decrease, but with some fluctuations, since 2004, when there was 2,1% in this category, see Table A.7 (Eurostat, 2013a).

The time trends, when looking at the male and female part of the population separately, are over all the same as for the entire population, where the very good health category fluctuates around a level, for the good health category there is an increase until 2011, and then a drop in 2012, for the fair health an increase and decreases for the bad and very bad health categories, see Table A.7 (Eurostat, 2013a).

The share of males in 2012 that perceived themselves to be in very good health were 27,1%, 43,3% in good health, 22,1% in fair health, 6,8% in bad health and 1,1% in very bad health. The same perceived health for females were in 2012, 23,4% in very good health, 42,5% in good health, 24,6% in fair health, 8,2% in bad health and 1,2% in very bad health, see Table A.7 (Eurostat, 2013a).

A.2.2.8 Morbidity

In 2012 there were 36,3% of the population that were suffering from a long-term illness or health problem. Since 2004 there has been levels mostly between 34,5% and around 37%, although there is one observation of 31,9% in 2008, see Table 2. For the ages 16-24 there has been variations, since 2004, between 12,5% in 2007 and 14,7% in 2009. The

share having a long-term illness in 2012 was 14%. For the ages 25-34 the 2004 and 2012 levels are close, 19,1 and 19,3%, respectively. In between there has been fluctuation between 18,3 and 20,2%. The same pattern observed for the ages 35-44, where the 2012 share of the population suffering long-term health problems was 25,5%. For the 45-54 year olds there were 34,5% with a long term health issue in 2012, which is lower than in 2004 when it was 35,3%, during the years in between there were fluctuations between 31,4 and 36,4%. Among the 55-65 year olds there has also been fluctuations since 2004, and the 2012 share of the population with a long-term illness was 46,9%. The top notation during this period was in 48,8% in 2004 and the bottom notation was in 44,9% in 2005. For the ages 65-74 there has been an over all decrease since 2004 from 61,6% to 56% in 2012. For the long term illness in the age group of 75 years or older, the share has varied between 68,3% in 2005 and 71,1% in 2009, as for the 2012 level it is the same as in 2004, namely 69,5%, see Table A.8 (Eurostat, 2013a).

Looking at males and females separately the same trends as for the total population can be found, where the share of the population suffering from a long term illness or health problem fluctuates around a certain level, except for the category of 65-74 years old where there is an decrease. In most cases the 2012 level is within the extreme values and thus the 2012 numbers will be presented. For more information on the fluctuations, see Table A.8 (Eurostat, 2013a).

Among the French males 34,7% were suffering from a long-term illness or health problem in 2012. The same number for the different age categories were 12,4% for the 16-24 year olds, 18,3%for the 25-34 year olds, 24,1% for the 35-44 year olds, 33,7% for the 45-54 year olds, 46,3% for the 55-64 year olds, 57,4% for the 65-74 year olds, and 70,8% of the 75 years or older, see Table A.8 (Eurostat, 2013a).

For the women, a total of 37,7% stated that they were suffering from a long-term illness or health problem in 2012. The same number for the different age groups were, 15,7% of the 16-24 year olds, 20,2% of the 25-34 year olds, 27% of the 35-44 year olds, 35,2% of the 45-54 year olds, 47,5% of the 55-64 year olds, 54,7% of the 65-74 year olds, and 68,7% of the 75 years and older, see Table A.8 (Eurostat, 2013a).

Out of the people suffering from a long-standing illness or health problem there were 16,1% stating that they have some limitations in their usual activities due to their health status, in both 2004 and 2012. In between those years the number varied between 14,7 and 16,3%, in 2008 and 2006, respectively. The share experiencing severe limitations accounted for 8,6% in 2012, a number that was increasing until 2010, when it was 9,6%, from the 2004 level of 7,3%. As for the share stating no limitations there were 76,6% in 2004 and 75,3% in 2012. Between these years there was a peak in 2007 of 79,8%, see Table A.8 (Eurostat, 2013a).

Looking at the males, there were 15% stating that they have some limitation in their usual activities caused by their health problem. The same number in 2004 was 14,8% and in between those years there was a decrease until 2009, with a bottom notation of 13,1%. There were 7,6% stating that they had severe limitations in 2012, and the same number in 2004 was 7,1%. Between those years there was a top of 8,5% in 2010 and 2011, and a bottom notation of 4,6% in 2007. The share stating that their health does not cause any limitation in their usual activities was 77,4% in 2012, compared to 78% in 2004. The maximum and minimum values in between those years were 81,8% in 2007 and 76,9% in 2010, respectively, see Table A.8 (Eurostat, 2013a).

Among the females with a health problem, 17,1% stated some limitations in 2012, and the same number in 2004 was 17,2%. The variation over the time period examined ranged between 15,9% in 2008 and 18,2% in 2006. As for the severe limitation this category represented 9,5% in 2012,and there was an increase between 2004 and 2010, from 7,5 to 10,6%. The share stating no limitations was 73,4% in 2012 and 75,3% in 2004. The numbers in between ranged from 72,8% in 2010 and 78% in 2007, see Table A.8 (Eurostat, 2013a).

Out of the male population 49,9% reported a body mass index, BMI, of 25 or higher in 2010. This can be compared to the 2004 self-reported number that was 39,6%, see table A.8.34 (OECD, 26, 2013). For the female population the same number was 36,7 in 2010, and in 2004, 29,3% of women reported that they were overweight or obese, see Table A.8 (OECD, 25, 2013).

A.2.2.9 Infant and maternal health

In France the over all infant mortality rate has decreased from 4,39 deaths per 1000 live births to 3,49 deaths in 2009, see Table 2. For male infants the trend is the same, and the decrease has been from 5 deaths per 1000 live births to 3,87 deaths in 2009. For female the decrease since the year 2000, from 3,74 to 3,1 deaths per 1000 live births in 2009, see Table A.9 (HFA-DB, 2013).

Regarding maternal mortality the number of deaths per 100 000 live births have fluctuated over the chosen time period, with a top notation of 10,66 in 2002 and a lowest notation of 6,08 in 2005. The most recent number is from 2009, when the maternal deaths per 100 000 live births were 9,42, see Table 2 (HFA-DB, 2013).

The number of abortions per 1000 live births had an increasing trend since 2000, when it was 248,53, until 2007, when it was 271,4. The two following years, for which data are available, there was a decrease and in 2009 there were 263,76 abortions per 1000 live births, see Table A.9 (HFA-DB, 2013).

In 2011, 98% of French infants were vaccinated against diphtheria, tetanus pertussis and poliomyelitis, 89% against measles, 97% against invasive disease due to haemophilius influenzae type b, and 51% against hepatitis b. vaccination against rubella has its most recent observation in 2009, when it was 89,5% of all infants, and 78,2% were vaccinated against tuberculosis in 2010, see Table A.9 (HFA-DB, 2013).

A.2.2.10 Patient satisfaction

Here the percentage of the respective populations that stated that they had no unmet needs, with regards to the medical examination they received, will be presented and this measure will be considered as satisfaction, i.e. the assumption is that if there are no unmet needs to declare, the patient is satisfied with the examination and care received. This is in all cases the vast majority of the population, and the remaining categories for dissatisfaction are several, and thus the percentage for each category will be rather small, however, the numbers for waiting lists will be presented, since this is one of the noted differences between the structure of the different health care systems. The remaining categories will be treated as having unmet needs in general.

Among the French patients 94,5% stated that they had no unmet needs from their medical examinations, which is the lowest notation for the time period examined. The highest notation in France during the time period examined was 96,3% in 2006 and in 2007. In 2012 there were 5,5% that reported that they had unmet needs, and 0,3% in 2012 stated that their unmet needs were caused by long waiting times. Since 2004, when there were 0,2% with unmet needs due to waiting lists, and the maximum and minimum values were 0,4 and 0,1% in 2011 and 2006, see Table 3 (Eurostat, 2013b).

When considering the age groups of 16-64 and 65 and older, there was 93,6% of the 16-64 years olds that were satisfied with the service they received in 2012. Since 2004 there has been fluctuations between 95,9 and 93,6%. This results in there being 6,7% in 2012 that were experiencing that they had unmet needs. The unmet needs caused by waiting lists were corresponding to 0,4% in 2012 as well as in 2011. The variation has been between 0,1 in 2006 and the 2012 level. For the age group of 65 and older there were 97,4% who had no unmet needs, which is also the case for 2007, and this is the lowest notation of satisfied patients in this age group. The highest level of satisfaction was in 2007 when 99% of the age group stated that they had no unmet needs. In 2012, this corresponds to 2,6% having unmet needs, and as for the unmet needs caused by waiting lists, it has been 0,1% for this age group for all years since 2004 except for 2005 and 2007, when it was 0%, see Table A.10 (Eurostat, 2013b).

Appendix 3. Italy

A.3.1 The health care system

The health care system in Italy has, like Italy itself, a fragmented history with considerable differences between the northern and southern regions. These are differences that already from the unification of Italy in 1861 created a divide, where the northern regions were considerably more industrialised and had agriculture run by efficient and modern technologies, while the southern part was underdeveloped. The health care systems at his time was in general either run by the Catholic Church or charitable organisations, which were nationalised in the unification. Additionally there was a public provision of health care and preventative medicine, support for needy and disabled at the municipality level, as well as independent not for profit associations and common aid associations for workers and artisans. From this, a system with employment based insurance was implemented in the in the 20th century. Contributions were made to insurance funds that were connected to the work on a voluntary basis, in the form of a percentage of the monthly wage (Lo Scalo et al., 2009).

The employment based insurance system worked well during the period of rapid economic growth after the Second World War, 1958-1963, when Italy was experiencing full employment. However, in the mid 1970's unemployment had started to rise, and combining that with Italy largely affected by the oil shocks in the beginning of the 70's, the system of employment related insurance resulted in 7% of the population only having access to hospital services, since they were either unemployed or self employed and thus not covered by the employment based health insurance. This prompted the giving of responsibility of the health care provision to the regions in 1974-75 (Lo Scalo et al., 2009) and creation of the National Health Service, *Serivizio Sanitario Nazionale*, SSN, in 1978, the latter bringing universal insurance coverage to the Italian citizens. The main objective of the SSN is to ensure equal access to health care, regardless of income, geographical location, to develop structures for preventative care, to decrease geographical inequalities in provision of health care services, to have control over health care expenditures and guarantee democratic control, through the political parties, over the management of the health care system (Lo Scalo et al., 2009 and Giannoni & Hitiris, 2002). The creation of the SSN marks the step from being a Bismarck system to a

Beveridge system (van der Zee & Kroneman, 2007) and was modelled on the British National Health Service (France et al., 2005).

The health care system is managed at both a national as well as a regional level. The government determines how much public resources are going to be devoted to the health care system, with additional funding from statutory health insurance (Lo Scalo et al., 2009). An essential level of care, *Livelli Essenziale di Assistanza*, LEA, is set at the national level and the funding distributed to the regions is aimed to supply the means of providing this basic package of care and reduce differences in quality of health care and what services are provided across the country. It is then the responsibility of the regions to organise and administer funding and the services they provide (Lo Scalo et al., 2009 and France et al., 2005). The LEAs were first created in 2001 and consists of a positive list and a negative list, on which treatments are being considered on the basis of "effectiveness, appropriateness and efficiency in delivery". While the positive list states what has to be provided, the negative list has three categories of procedures that not are included in the SSN coverage, to procedures to be considered on a case to case basis and a list of procedures where inpatient treatment is not necessary, but outpatient treatment suffices, e.g. after carpel tunnel and cataract surgery. Thus, the LEAs are what specify what treatments, services and procedures are covered by the SSN (France et al., 2005).

The financing of the health care expenditures was, according to Giannoni and Hitiris (2002), mainly by regional, employer and general health taxes, which covers 67% of the costs. The remaining 33% were from co-payments and private insurance, and a private insurance policy was held by 16% of the population.

When implementing the SSN system one part of the reform was to centralise the administration of the health care system, leaving little administrative responsibilities to the region and local levels, in order to have a more cohesive system. However, since this change created a power shift from the regional governments to the national government, there were disagreements about e.g. financing jurisdiction. This caused an informal increase of the regional autonomy with regards to the health care sector (Lo Scalo et al., 2009), until the formal process started in 1992, giving more political power and fiscal authority. More practically this entailed e.g. increased responsibilities in policy making,

administration and management, and resource allocation (Lo Scalo et al., 2009 and Giannoni & Hitiris, 2002).

Since the creation of the SSN several reforms has followed, on the same trend, strengthening the regional autonomy. Among other things creating a federal fiscal system, which has put the funding of the SSN at a regional level rather than at a national. This has been part of the over all trend of working towards a federal reform (Lo Scalo et al., 2009). It can also be seen, as the majority of the regions were created in 1970 the regional power over the health care system has increased as the regions have gained more political power as well as technical and administrative capacities (France et al., 2005). However, this results in further differences between northern and southern regions, since the northern, richer, regions are looking to have their independence while the southern regions have trouble finding the resources to fund the new responsibilities, only having the resources in the own region to fall back on (Lo Scalo et al., 2009 and France et al., 2005).

The Italian health care systems has strengths, such as supplying universal health care coverage, but at the cost of funding system unable to keep up with the expenditures (Giannoni & Hitiris, 2002), a problem which has been present from the establishment of the SSN (Hoffmeyer & McCarthy, 1994).

The amount of health care expenditure, as percentage of the GDP was at the time of the creation of the SSN in 1978, 6.6%. Since then it has been rising steadily and during the 1990's the health care expenditures were growing twice as fast as the GDP (Giannoni & Hitiris, 2002).

A.3.1.1 Regional structure

The regional level is responsible for the delivery of the heath care services, specified by the benefit package set at the national level, LEAs, as stated above. Health care provision is done through accredited private and public hospitals as well as local health enterprises, *aziende sanitare locali*, ASL, which are provided on a population basis. Other than provision the regions are also charged with planning and administration of the provided health care, as well as for the adaption of the health care provision to match the needs of the population, e.g. assessing the need to build new hospitals. There are also legislative and

executive functions, as well as technical support and evaluation. These include for example, presenting financing criteria for the public funding of both public and private health care providers, determine strategic goals and regional initiatives (Lo Scalo et al., 2009).

The ASLs have a defined population, based on geographic location, to which it provides care to the local population. The average population base is 250 000 per ASL. They are supervised by the regions, which are also managing the size and organisation of each ASL. The ASLs charged with informing their population about disease prevention. The types of care provided by the ASL are acute care, rehabilitation, primary care, specialist medicine that are not bound to hospitals, as well as residential and semi residential care. These services are provided in hospitals, for the first two, or by medical professionals who are working as independent contractors under the ASL (Lo Scalo et al., 2009).

Regarding the technical support and evaluation of the health care system ten of the regions have established a regional agency for health to provide evaluation of the health care quality of different providers, and scientific as well as technical support. In the other regions, the regional health department provides these services. Further, the regional agencies also assist the health departments in matters of anticipating population need and demand for health care. These regional agencies were created during the mid 1990's to the beginning of the 2000's, although in some cases actual implementation was somewhat delayed[3] (Lo Scalo et al., 2009).

A.3.1.2 Primary care

The physicians providing primary care services have generally been working in single practices, partly because they are being paid by the amount of people registered on their list. However, shared clinics are becoming more common, due to e.g. financial incentives provided to promote group practices, which have been in place since 1999 and attitudes are changing. The population can register with any physician given that the list of that physician is not full and the maximum allowed patients for general practitioners, GPs, are 1500 and 800 for paediatricians (Lo Scalo et al., 2009). The average number of

[3] More specifically the regional agencies for health were created in 1994 – Emilia Romagna, in 1995 – Friuli-Venezia-Giulia, in 1996 – Campania and Marche, in 1998 – Piedmont, in 1999 – Lazio and Abruzzo (but not active until 2006), in 2000 – Tuscany, in 2001 – Veneto and Puglia.

patients in 2004 for GPs were, according to the Italian Ministry for Health, Ministerio della Salute Servizio Studi e Documentazione (2008), 1107 and for paediatricians 805. Insufficient supply of paediatricians, and also due to custom, children in some regions are to a larger extent listed with GPs.

A.3.1.3 Hospital care

Ambulatory care is provided by the ASLs or by other public facilities, both public and private, that has been accredited and which have an agreement with the ASL. The services provided at this level of care differ among regions. Patients can access the ambulatory care services either by referral from their GP and after having referral from their GP, patients can choose their specialist. Having a referral is not always necessary, since people can make an appointment by themselves, although with restrictions to certain areas of treatment[4]. However, in case of an emergency direct access to all service areas are given through the assessment of a doctor (Lo Scalo et al., 2009).

The service of a central booking point, CUP, is provided in some regions to give patients information on hospitals and their waiting lists, for when they are making an appointment. This information is given for public and private accredited hospitals, but when it comes to private hospitals that are not accredited there are other information channels. Turning to a private hospital that is not accredited usually entails not having to wait as long to receive treatment, however, the cost of the care received at these hospitals are not covered by the SSN, but have to be paid by the patient (Lo Scalo et al., 2009).

There are 669 public hospitals, which are providing both in- and out-patient care, 553 private hospitals, that are providing care under contract from the ASLs, generally these are not-for-profit organisations (Lo Scalo et al., 2009). Public hospitals are mainly managed by the ASLs, but the facilities that are not have been broken off to form *aziende ospidaliere*, AOs (France et al., 2005), which are providing tertiary care. These are highly specialised hospitals that are covering, if not a national patient group, at least an interregional one (Lo Scalo et al., 2009).

[4] gynaecology, dental care, paediatrics (for those who have decided not to register their children with a designated paediatrician), optometric services and psychiatric services for children

A.3.1.4 Decentralisation

According to Giannoni and Hitiris (2002) Italy is one of the countries that have extensive decentralisation of their health care system, while struggling with containing the costs of their health care system. The increasing decentralisation however, allows regions to allocate the resources to adapt to the local needs, but regions are also allowed to interpret the government directives on cost containment, which leads profoundly different ways of dealing with health care expenditures, as well as over all increasing differences between the regions. One further reason for the increasing inequalities are the deviations from the formula for the regional allocation national funds, since the regions have the decision power over the expenditures. On the back of this, and to enable cost containment there has been a new formula implemented in some if the regions, that will improve cost containment through the guidelines for a balanced use of the resources (Lo Scalo et al., 2009).

Further, in implementing the SSN in a country where there already were large regional differences and a large concentration of the poor in the southern part of the country, aggravated the differences, both regarding the quality and efficiency of the care provided (Giannoni & Hitiris, 2002 and Piperno & Di Orio, 1990). When funding from the government decreased after the reforms in the 1990's, this again caused regional differences to increase, since, as stated above, the source of tax revenue is largely different among regions, thus affecting the size of the health care budget and causing large variations in the expenditures among regions (Giannoni & Hitiris, 2002).

In their conclusion Giannoni and Hitiris (2002) state that the decentralisation of the Italian health care system, although there have been effective cost containment at the national level, has lead to the continuous high spending of the rich regions, and the low spending of the poor regions. This in turn causes the differences between the regions not only to remain, but also for some cases increase.

Piperno & Di Orio (1990) states that lower social status is associated with a less efficient use of medical services and that there are considerable differences also in health outcomes between social groups in the same region and that these differences are largest in the southern regions.

Health status across socio-demographic groups are not evenly distributed, but the demand for health care is not affected to any larger extent by these factors, according to Mapelli (1993). He finds that the demand for health care is primarily influenced by structural factors, such as the supply of health care and geographical access. Further he finds that the health care system is showing slight favour to the poor, also found by Wagstaff et al., (1991). This leads to over utilization and unnecessary use of the health care services by these groups, leading to less resources being left for other citizens, potentially with better ability to pay for the services (Mapelli 1993).

A.3.1.5 North - South

During the economic growth-spurt after the Second World War, more precisely 1951-1963, the divide between north and south was becoming more distinct, due to considerable migration from the agricultural south to the industrialised north, as well as to other European countries. These differences are still clearly marked and can be illustrated for example by the income gap, labour market participation differences, both of which are higher in the north and lower in the south, that 75% of the GDP is produced in the north, and the region of Lombardy, which is situated in the north bordering to Switzerland produces 20% alone (Lo Scalo et al., 2009).

The regional differences in quality and waiting lists, but to avoid low quality care and long waiting lists people can seek care at private facilities. This is often done if the patient has a voluntary health insurance that relieves them from additional costs (Lo Scalo et al., 2009). It is also possible to seek care in another region, with a patient flow generally going from the south to the north (Lo Scalo et al., 2009 and Piperno & Di Orio, 1990).

Regarding regional differences in waiting lists it is not only the period of time before seeing a doctor or receiving treatment that differs, but also the fundamental managing of the waiting list. The differences with regards to this are very large between regions and developing standards by which the patient's relative priority can be measured has become a key objective at the national level. Further, in 2006 the national government and the regions came to an agreement to implement a three year plan to shorten waiting times. However, in 2009, the year of the report, there are still large differences between regions, and the management of the waiting lists are still fully manual in some southern regions,

while in some regions there is a central booking point, CUP, covering the whole region (Lo Scalo et al., 2009).

A.3.1.6 Patients

The first step for the patient is usually to see the GP where they are listed. The GP then gives a referral to see a specialist physician, giving the GPs a gatekeeper role. These referrals are unspecific as to which specialist, giving the patient the choice of where to go for specialist care. As stated above, for some areas of treatment the patient can seek care directly from the specialist, such as gynaecology, dental care and optometry. After obtaining a referral to see a specialist the patient will have to wait to have that appointment and then there is another waiting list if the patient requires surgery or other treatments that requires inpatient admission. After being discharged from the hospital there are several services that, if needed, can be provided during the rehabilitation, such as referral to a rehabilitation hospital, or assistance or a nurse provided at the patient's residence (Lo Scalo et al., 2009).

Regarding patient rights, empowerment and satisfaction, there is a national directive, not all regions enforce it, creating large differences across different regions. This caused the creation of the *National Agreement for Health* in 2006 at the *Standing Conference on the relations between the State, the Regions and the Autonomous Provinces*. This agreement included the implementation of a National Programme for Health Care Quality, which specifies guidelines on surveys for patient and citizen satisfaction (Lo Scalo et al., 2009).

When it comes to patient safety it is also up the each region to implement policies. Steps have been taken in order to get national guidelines, starting in 2003. These steps resulted in a two year pilot project starting in 2007 in the direction of the Ministry of Health. The project, called the National System for Patients Safety, also functions as the National Observatory for Patients Safety (Lo Scalo et al., 2009).

In order to reduce regional differences in this field the *Standing Conference on the relations between the State, the Regions and the Autonomous Provinces* has given the ASSR the authority to coordinate and support the regions, especially with regards to clinical risk management and patient safety (Lo Scalo et al., 2009).

A.3.2 Health care system in numbers

In this section will present the statistics for the indicators of the Italian health care expenditures, the state of the health care system and the health status of the population. Tables are found in the appendix.

A.3.2.1 Health care expenditure

In Italy in 2011 the total health care expenditures amounted to 9,5% of the GDP and over during the period 200 to 2010 it has been increasing from 8,02% to be close to 9,5%. In per capita terms, the spending on health care has also been increasing, from 2028 PPP adjusted dollars in 2000 to 3071,1 in 2012, see Table 1. Out of the total health care expenditures 46,6% were spent on in-patient care, a number that has been ranging from 43% in 2001 to the 2011 level. In 2010 the per capita spending on in-patient care was 1371 PPP adjusted dollars, see Table A.1 (HFA-DB, 2013).

The health care expenditure on the public sector was 7,34% of GDP in 2011, and the percentage has been increasing since 2000, see Table A.1. As a percentage of total health care expenditure the expenditure on the public sector corresponds to 78,2% in 2012. Since 2005 the ratio has been close to 78%, prior to that it was lower, see Table 1. The public spending on in-patients were 93,7% of total in-patient spending in 2010. The amount spent on public health care can also be illustrated by its share of the total government expenditures, which was 14,72% in 2011. Since 2000, when it was 12,68%, this share has had some fluctuation, but over all it has been increasing, see Table A.1 (HFA-DB, 2013).

The expenditures for privately provided care was equal to 2,16% of GDP in 2011, and it has been just above 2% of GDP since 2000. However, as a percentage of total health care expenditure it was 22,76% in 2011, but 27,5% in 2000, see Table A.1 (HFA-DB, 2013). This implies that that there has been larger growth in the expenditures on public health, whereas private health care expenditure grows at the same rate as the GDP.

The households' out of pocket payment, as a percentage of total health care expenditure, has gone from being 24,5% in 2000 to being 19,94% in 2011. When looking at the out of pocket payments as a percentage of private sector health care expenditures the decrease

is less of a steady and varies from 84,88% in 2006 to 89,14 in 2000. In 2011 it was 87,58%, see Table A.1 (HFA-DB, 2013).

Pharmaceutical expenditures accounted for 15,7% of total health care expenditures in 2011. This share of the expenditures has been decreasing steadily since 2001, when it was 22,2%. In 2000 it was lower than that, at 21,7% of total expenditures. This part of the health care spending corresponds to a per capita spending of 482,2 PPP adjusted dollars in 2011, and the per capita amount spent on pharmaceuticals has been fluctuating, with a range from 440,1 PPP adjusted dollars in 2000 to 537,8 PPP dollars in 2008. The share of the pharmaceutical expenditures that has been spent on the public sector is below half in 2000, then going to half and slightly over in the middle of the decade and then going down again to 45,5% in 2012, see Table A.1 (HFA-DB, 2013).

A.3.2.2 Hospitals and patients

Acute care hospitals refer to short stay hospitals, which are providing diagnostics and treatment on an in-patient basis. Treatments can be either surgical or non surgical, and the hospitals are providing care for a wide range of medical conditions. Speciality hospitals are not included in this category (HFA-DB, 2013).

WHO Regional Office for Europe defines discharges as the conclusion of treatment, and upon that conclusion the patient is sent home, transferred to another facility or has died. Cases where the hospital stays were shorter than 24 hours are registered separately (HFA-DB, 2013).

In 2011 there were 1182 hospitals in Italy and 1025 of those were acute care hospitals. Over all the number of hospitals and acute care hospitals have been decreasing, from 1321 and 1150 in 2000, respectively, see Table A.2. This reflects a number of 1,95 hospitals per 100 000 inhabitants in 2011, whereof 1,69 were acute care hospitals. The hospital density has decreased somewhat since 2000, when there were 2,32 hospitals per 100 000 inhabitants, whereof 2,02 were acute care hospitals. The number of hospital beds provided per 100 000 inhabitants were 342,66 in 2011 and of those 275,14 were acute care hospital beds. Since 2000 there has been a decrease from 470,91 hospital beds per 100 000 inhabitants, and of those 407,01 were in acute care hospitals, see Table 1. As a percentage of all hospital beds 31,53% were in private hospitals in 2011, and the share

has not seen any radical fluctuations since the beginning of the 2000's. This translates to a total number of 65 557 private hospitals beds in 2011, and he absolute number has been decreasing since 2003, when there were 71 972 private hospital beds, see Table A.2 (HFA-DB, 2013).

The number of in-patient discharges per a 100 population was 11,77 in 2011, a number that has been decreasing since 2000, when it was 16,18. The average length of stay, for all hospitals, was 8 days in 2012 and there has been an increasing trend since 2000 when it was 7,7 days, see Table A.2 (HFA-DB, 2013).

In acute care hospitals the number of discharges per 100 citizens was 11,08 in 2012 and there has been an over all decrease from 15,83 in 2000. The average length of stay in acute care hospitals was 6,8 days in 2012, and it has been 7 or almost 7 days for the entire period examined, see Table A.2 (HFA-DB, 2013).

The average number of outpatient visits to primary or ambulatory care per person was 7 in 2005 and 6,1 in 2000, other than those observation there was no data available, see Table A.2 (HFA-DB, 2013).

A.3.2.3 Physicians

Breaking down the physicians into groups of specialties, five groups are considered, namely: general practitioners, paediatric specialities, obstetric and gynaecological specialties, surgical specialties and medical specialties. The last refers to a broad group of specialities that focus on diagnosing a non-surgical treatment of medical conditions[5]. Further, the numbers are reported as physical persons, rather than in the full time equivalent form (HFA-DB, 2013).

The total number of physicians per 100 000 inhabitants in 2011 were 409,85, which was an increase from 2009, when the number was 367,54, see Table 1. This corresponds to a

[5] Including: Internal medicine, cardiology, endocrinology, gastroenterology, pulmonology, respiratory medicine, oncology, gynaecologic oncology, immunology, rheumatology, neurology, oto-rhino-laryngology, radiology, infectious diseases, microbiology-bacteriology, haematology, dermatology, pathology, occupational medicine and medical interns or residents training in these specialties. The following are not included: Surgery, obstetrics and gynaecology, paediatrics, psychiatry and general practitioners.

total number of physicians of 221 235 and 248 723, for 2009 and 2011, respectively. When looking closer at the compositions of the groups of specialities, the medical specialities had a density of 126,47 and 134,52 per 100 000 inhabitants for 2009 and 2011 respectively. The surgical specialities per 100 000 inhabitants were 83,17 in 2009 and 102,17 in 2011. Obstetric and gynaecological specialties had a density of 20,52 and 21,57 physicians per 100 000 inhabitants for the same years. The paediatric specialities have had a stable amount of a little more than 12,5 physicians per 100 000 inhabitants since 2000. The number of general practitioners has however decreased since 2000, when it was 82,83 GPs per 100 000 inhabitants to 75,9 GPs per 100 000 inhabitants in 2011. In absolute numbers the densities correspond to, for medical specialties 76 124 in 2009 and 81 634 in 2011, for surgical specialties 50 060 in 2009 and 62 005 in 2011, for obstetric and gynaecological specialities 12 349 in 2009 and 13 090 in 2011, for paediatric specialties 7 155 in 2000 and 7 716 in 2011, and for GPs 47 148 in 2000 and 46 016 in 2011, see Table A.3 (HFA-DB, 2013).

A.3.2.4 Population composition

The crude death rate in Italy was 9,67 in 2010 per a 1000 people population, compared to 2000, when it was 9,01, also in the following years it was close to 9 per a 1000 people population. Total fertility rates were 1,26 in 2000, and after that it has been increasing to 1,41 in 2008, which is the most recent observation. The share of the Italian population participating in the labour force has been increasing slightly between the years 2000 and 2007, from 41,3 to 41,78%, see Table A.4 (HFA-DB, 2013).

There were 14,05% of the population between the ages 0 and 14 years old in 2010, a number that has decreased slightly, without large fluctuations since the years 2000, when it was 14,31%. The portion of the population older than 65 years old has increased, from being 18,11 to 20,26% of the population in 2010. Looking at the male population there are 14,88% aged between 0 and 14 years old, and 17,6% of the male population aged above 65 years old. The share of the males between 0 and 14 years old has decreased, from being 15,17% of the population in 2000, and the share over 65 has increased compared to in 2000, when this age category represented 15,36% of the male population. Regarding the female population, the share between 0 and14 years old has gone from being 13,5% in 2000, to being 13,26% in 2010, showing the same small decrease as the male population. The share belonging to the over 65 years olds, again shows s similar

trend to the male population, as it has increased from 20,69 to 22,77% of the female population between the years 2000 and 2010, see Table A.4 (HFA-DB, 2013).

A.3.2.5 Life expectancy

Life expectancy at birth was 82,5 years in 2010, compared to 79,92 years in 2000, see Table 2. At the age of 1 the life expectancy was 81,77 in 2010 and in 2000 it was 79,11 years, then adding up to a total of 82,77 and 80,11 life years respectively. When the average individual is 15 the life expectancy was 67,89 years in 2010 and 65,26 in 2000, estimating 82,89 and 80,26 life years, respectively. Being 45 years old in 2010 gives a life expectancy of 38,69 years and the same for 2000 was 36,39 years. Then the predicted total amount of life years is 83,69 and 81,39 years, respectively. The life expectancy at the age of 65 in 2010 was 20,76 and 18,83 in 2000, totalling in 85,76 and 83,83 life years, respectively. In the World Health Report the estimated life expectancy in 2000 and 2011 was 79 and 82 years, respectively, see Table A.5 (HFA-DB, 2013).

At birth the male life expectancy was 79,75 years in 2010 and 76,65 years in 2000, see Table 2. When the average male reached 1 year old the life expectancy was 79,03 years in 2010 and in 2000 it was 76,01 years. In total life years it corresponds to 80,03 and 77,01, for the respective observations. At the age of 15 the average male is expected to live an additional 65,15 years in 2010 and 62,17 years in 2000, giving a total of 80,15 and 77,17 life years. When reaching the age of 45 the life expectancy was 36,2 years in 2010 and 33,66 in 2000, which corresponds to 81,2 and 78,66 life years in total. By the age of 65 the average Italian male is expected to live for an additional 18,67 years in 2010 and 16,63 years in 2000, adding up to 83,67 and 81,63 total life years, for 2010 and 2000, respectively. Finally, according to the World Health Report the expected male life expectancy was 80 years in 2011 and 77 years in 2000, see Table A.5 (HFA-DB, 2013).

The life expectancy for Italian females at birth was 85,04 years in 2010 and 82,68 years in 2000, see Table 2. At age 1 the average Italian female was expected to life for an additional 84,3 years in 2010 an 82,02 years in 2000, corresponding to a total of 85,3 and 83,02 life years, respectively. At the age of 15 life expectancy was 70,41 years in 2010 and in 2000 it was 68,17 years, thus with a total number of life years of 85,41 and 83,17 years, respectively. By the age of 45 the life expectancy was 40,93 in 2010 and 38,87 in 2000, with a total of 85,93 and 83,87 life years, respectively. For the 65 years olds the life

expectancy was 22,51 years in 2010 and 20,65 in 2000, thus with a total number of life years of 87,51 and 85,65 years, respectively. According to the estimation of the World Health Report, the female life expectancy was 85 years in 2011 and 82 year in 2000, see Table A.5 (HFA-DB, 2013).

A.3.2.6 Healthy life years

The average Italian woman would be expected to have 61,5 healthy life years, in absolute terms in 2012, which is a decrease compared to 2004, when the average woman had 71 healthy life years at birth, as well as the following years, see Table 2. If 50 years old, the healthy life expectancy for an average Italian woman would be 16,9 years in 2012, which is a decrease from 2004 when it was 24,1 healthy life years when 50 years old. This decrease has been gradual since 2004. Again, by the age of 65, there has been a gradual decrease of expected healthy life years, from 12,5 years in 2004 to 7,2 healthy remaining life years in 2012, see Table A.6 (Eurostat, 2013a).

In absolute terms, the average Italian male would be expected to have 62,1 healthy life years in 2012, which, like for the Italian women, has been decreasing since 2004, when for the men the healthy life expectancy was 68,7 years, see Table 2. By the age of 50, the average Italian man could expect to have 17,5 healthy life years, which is, as for the women a decrease from the 2004 level of 22,6 years, but this decrease has been more fluctuating than that of the women. Counting the healthy remaining life years from the age of 65, there has been a fluctuating decrease since 2004, when the average man could expect to live healthily for an additional 11,4 years, but in 2012 this has decreased to 7,8 years, see Table A.6 (Eurostat, 2013a).

When the healthy life expectancy is calculated with the self-perceived health, the average female will have 74,1 healthy years of life at birth, in 2011. The development from 2004, when it was 74,5 healthy years, has been fluctuating between 74,1 and 76,5 healthy years. When reaching the age of 50, the average woman can expect 26,1 healthy life years in 2011, when this is calculated using perceived health. The development since 2004 has been fluctuating, with a top notation of 28,3 healthy years in 2010 and a bottom notation of 26,1 in 2011. Other than those, they vary between 26,6 and 27,3 healthy years. By the age of 65 the expected healthy life years were 13,9 in 2011, and since 2004, when it was 14,4, there has been a lot of fluctuations, as for the calculations of the healthy life

expectancy from age 50. The highest notation was in 2010, with 15,7 healthy years and the lowest in 2011, see Table A.6 (Eurostat, 2013a).

When the healthy life expectancy is calculated with the self-perceived health, the average male will have 72,4 healthy years at birth, in 2011. The number has been increasing from 2004, when it was 71,9 until 2010, when it was 74,3 healthy years. When 50 years old, the healthy life expectancy was 25,1healthy years in 2011, and the trend was increasing from 2004 until 2010, 24,8 to 26,6 healthy years. At age 65, the healthy years expected, based on self-perceived health, were 13,3 healthy years in 2011, with a similar development over time as the healthy life expectancy from 50 years of age, see Table A.6 (Eurostat, 2013a).

A.3.2.7 Self-perceived health

There were 13,7% of the Italian population that perceived their health to be very good in 2012, and the number has been fluctuating between 12,3 and 14,9% since 2004. The majority of the population, 54,7%, perceived that they were in good health in 2012, and this category has represented a majority if the population since 2007, the three years before it was below 45% of the population, see Table 2. Further, 19,2% perceived that they were in fair health, and this share has been decreasing since 2004, when it was 21%. For the category bad health there were 9,5% of the population, with an over all increase since 2004, when this category represented 8,5% of the population. Finally, 2,9% considered themselves being in very bad health in 2012, with a fluctuating increase since 2004, see Table A.7 (Eurostat, 2013a).

The over all time trends when looking at the male and female part of the population separately, are over all the same as for the entire population together, where there is a fluctuating trend for the very good health, the good health is increasing and ending up in majority, or close to majority, the fair health category is decreasing and the categories for bad and very bad health are increasing, see Table A.7 (Eurostat, 2013a).

Of the male population 15,5% perceived themselves to be in very good health in 2012, 56,7% in good health, 17,4% in fair health, 7,8% in bad health and 2,7% in very bad health. For the females the same perceptions are, 12,1% in very good health, 52,9% in

good health, 20,8% in fair health, 11% in bad health and 3,2% in very bad health, see Table A.7 (Eurostat, 2013a).

A.3.2.8 Morbidity

Among the Italian population in 2012, there were a total of 23% with a long-term illness or health problem. The same number for 2004 was 21,1%, and the share was varying between this and 22% until 2011 when it increased to 25,3%, see Table 2. Looking at the different age groups, there were 5% of all 16-24 year olds suffering from a long term health problem, and since 2004 there has been fluctuations, with top notations of 6,4 and 6,3% in 2006 and 2010, respectively and a bottom notation in 2004, of 3,9%. The same numbers for the age group of 25-34 year olds there were a bit above 7% of the population for most of the time period examined, apart from peaks, of 9,4, 8,8 and 9,2% in 2006, 2008 and 2010, respectively. Also there was a decrease in 2012 to 5,8% of the population, which is a bottom notation of the time period examined. The next age category, 35-44, there were also fluctuations, between 13,4% in 2006 and 10,7% in 2012. Fluctuations were also found in the share of the long term ill in the age group 45-54, where the share was varying between 20,8 and 16,4% in 2011 and 2007, respectively. The 2012 level was 17,1% of the population suffering from a long-term health problem. Of the 55-64 years olds 27,8% were having long-term health problems, and the share has been varying since 2004, between 31,1 and 23,4%. Among the 65-74 year olds there were 41,8% suffering long-term problems, and also here it has been varying since 2004, with a top notation of 45,1% in 2011 and 36,3% in 2006. For the persons with an age of 75 years or older, there has been an over all increase of the long term ill, from 53,5% in 2004 to 61,8% in 2012, see Table A.8 (Eurostat, 2013a).

For the males and females separately there is the same trends of fluctuations around a certain level, except for the category of 75 years or older where there is an increase, and in most cases the 2012 level is within the extreme values and thus the 2012 numbers will be presented, except for the category of 75 years or older where the 2004 level will be presented also, see Table A.8 (Eurostat, 2013a).

Among the Italian males there were 21,2% suffering from a long-standing illness or health problem in 2012. Looking closer at the age groups, the same number for the 16-24 year olds was 5,2%, for the 25-34 year olds 6,1%, for the 35-44 year olds 10,1%, for

the 45-54 year olds 16,5%, for the 55-64 year olds 26,8%, for the 65-74 year olds 40% and for the 75 years or older, 57,1% suffered a long standing illness or health problem. This final category had an increase from 2004, when 50,3% suffering from a long-standing illness or health problem, see Table A.8 (Eurostat, 2013a).

For the women, there was a total of 37,2% suffering from a long-term illness or health problem in 2012. For the age groups, there were 4,8% of the 16-24 year olds with a long standing health problem, 5,6% of the 25-34 year olds, 11,3% of the 35-44 year olds, 17,6% of the 45-54 year olds, 28,9% of the 55-65 year olds, 42,7% of the 65-74 year olds, and 64,8% of the 75 years or older, which had an increase from 55,4% in 2004, see Table A.8 (Eurostat, 2013a).

Of the share of the population suffering from a long-standing illness or health problem, 19,6% stated that they have some limitation in their usual activities due to their sickness or health problem in 2012. There has been an increase from 2004 when there were 9,3% stating the same thing, however, the major part of this increase occurred between 2004 and 2007, where it went from 9,3 to 18,3%. The share stating that they have severe problems has also increased, but not as dramatically, from 5,4% in 2004 to 8,6% in 2012. As for the part stating that they experience no limitation in usual activities there were 85,3% stating this in 2004, and 71,8% in 2012, see Table A.8 (Eurostat, 2013a).

The males of this category there were 17,8% stating that they had some limitation in usual activities caused by their long-term illness or health problem in 2012. This share has increased since 2004 when it was 8%, and like for the total of this population the largest increase was between 2004 and 2007, when it went from 8 to 15,6%. For that part stating that they experience severe limitation, this share accounted for 7,3% in 2012, which is an increase from 4,8% in 2004. As for the share stating no limitations there were 75% in 2012, compared to 87,2% in 2004, see Table A.8 (Eurostat, 2013a).

Among the women suffering from a long-term illness or health problem, 21,3% stated that they experienced some limitation due to their health status. As for the total and male population, there was a significant increase of this share between 2004 and 2007, which for the women was from 10,5 to 20,9. After that, it has stayed above 21%, except for in 2010, when there were 16% stating some limitations. There was also an increase among

the ones stating severe limitations, from 6% in 2004 to 9,9% in 2012. The share stating no limitations decreased fro 83,5% in 2004 to being 68,8% in 2012, see Table A.8 (Eurostat, 2013a).

The share of the male population reporting that they had a body mass index, BMI, of 25 or higher, i.e. were overweight or obese, was 56,2% in 2011. This can be compared to the same number for 2005, when 54,0% reported the same thing, see table A.8.34 (OECD, 26, 2013). For women, the same numbers were 36,1 and 35,9, for 2011 and 2005, respectively. The female self reported overweight and obesity has declined from 2010, when it was 37,2%, which is the top notation for the time frame examined, see Table A.8 (OECD, 25, 2013).

A.3.2.9 Infant and maternal health

For the infant, as well as the maternal, mortality data there is a gap in 2004 and 2005 where there are no observations in these categories. The infant mortality has decreased in Italy since the year 2000, when 3,42 infants per 1000 live births died, compared to 3,35 deaths in 2010, see Table 2. Among male infants the mortality was 3,63 per 1000 live births in 2010, compared to 4,73 in 2000. The female infant mortality has also been decreasing and was 3,05 deaths per 1000 live births in 2010, compared to 4,2 in 2000, see Table A.9 (HFA-DB, 2013).

Maternal death rates have fluctuated a lot over the chosen period, with a maximum notation in 2003 with 5,18 deaths per 100 000 live births, and with a lowest notation 1,97 in 2006. The most recent notation, in 2010, was 2,87 deaths per 100 000 live births, see Table 2. The number of abortions per 1000 live births has been decreasing from 342,54 abortions per 1000 live births in 2000 to 203,33 abortions in 2009, which is the most recent observation, see Table A.9 (HFA-DB, 2013).

In 2011, 96% of Italian infants were vaccinated against diphtheria, tetanus, pertussis, poliomyelitis and hepatitis b, 90% against measles, and 96% against invasive disease due to haemophilius influenzae type b. concerning vaccination against rubella, the most recent number is from 2006, when it was 87,3% of the infants that were vaccinated. There is no real data for this period on vaccination against tuberculosis, other than two notations of 1% in 2000 and 2001, see Table A.9 (HFA-DB, 2013).

A.3.2.10 Patient satisfaction

Here the percentage of the respective populations that stated that they had no unmet needs, with regards to the medical examination they received, will be presented and this measure will be considered as satisfaction, i.e. the assumption is that if there are no unmet needs to declare, the patient is satisfied with the examination and care received. This is in all cases the vast majority of the population, and the remaining categories for dissatisfaction are several, and thus the percentage for each category will be rather small, however, the numbers for waiting lists will be presented, since this is one of the noted differences between the structure of the different health care systems. The remaining categories will be treated as having unmet needs in general.

The share of the population stating that they have no unmet needs in their contact with the health care system were 93,6% in 2012, and 2006, and this has been varying between 92,5% in 2004 and the 2012 level. This corresponds to 6,4% stating that there were unmet needs of some kind. The share stating that their dissatisfaction was caused by long waiting lists were 0,7% of the population. This number has been decreasing since 2004, when it was 1,5%, see Table 3 (Eurostat, 2013b).

Among the part of the population aged between 16 and 64 years old, 94% were not having unmet needs in 2012. This share has been varying between 93 and 94% since 2004. This results in a share between 6 and 7% of this age group stating that they have unmet needs. The share of the age group having their unmet needs caused by long waiting lists were 0,5%, which is a decrease from 1,3% in 2004. For the older age group, of 65 years of age or older, there was 92,2% that had no unmet needs. There have been variations since 2004, when it was 90,9%, which is also the lowest notation, but the variations have been close to 92%. This entails a total of 7,8% in 2012 who had unmet needs in 2012. The percentage stating that their unmet needs were caused by waiting lists were 1,2% in 2012, which is a decrease from 2,4% in 2004, see Table A.10 (Eurostat, 2013b)

Appendix 4 - Tables

Table A.1. Health care expenditures

Expenditure on inpatient care, PPP$ per capita

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	975.7	1025.9	1097.3	1095.9	1128.5	1192.2	1257.5	1316.2	1381.5	1465.3	1493	1528.8	...
Italy	...	...	...	...	...	...	...	...	1369.3	1382.3	1371	...	...
Sweden	105	738.6	832	895.4	920.9	896.4	956.6	1007.5	1053.8	1066.4	1054.7	1114.5	...

Total inpatient expenditure as % of total health expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	38.3	37.8	37.6	37.1	36.5	36.6	36.6	36.6	36.7	37	37.2	37.1	...
Italy	43.2	43	43.1	43.5	44.3	44.2	44.8	44.8	46.1	46	46.3	46.6	...
Sweden	4.6	29.5	30.8	31.6	31.2	30.2	30	29.4	28.8	28.8	28.4	28.4	...

Public sector expenditure on health as % of GDP, WHO estimates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	8.02	8.12	8.42	8.64	8.7	8.8	8.74	8.68	8.46	9.04	8.98	8.92	...
Italy	5.82	6.1	6.18	6.2	6.54	6.78	6.88	6.62	6.98	7.38	7.42	7.34	...
Sweden	6.94	7.28	7.56	7.64	7.4	7.36	7.26	7.26	7.52	8.1	7.74	7.58	...

Public inpatient expenditure as % of total inpatient expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	94.4	94.5	94.7	94.4	94.4	94.1	93.7	93.6	93.6	93.7	93.4	93	...
Italy	...	...	...	...	...	...	...	...	94	93.7	93.7	...	...
Sweden	100	98.2	97.9	98	98.1	97.9	97.9	98.1	98.3	98.3	98.2	98.3	...

Public sector expenditure on health as % of total government expenditure, WHO estimates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	15.5	15.7	15.92	16.16	16.34	16.42	16.5	16.5	15.88	15.9	15.88	15.94	...
Italy	12.68	12.78	13.12	12.88	13.78	14.16	14.18	13.88	14.36	14.22	14.72	14.72	...
Sweden	12.6	13.34	13.6	13.72	13.66	13.66	13.78	14.24	14.54	14.74	14.78	14.78	...

Private sector expenditure on health as % of GDP, WHO estimates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	2.08	2.12	2.16	2.3	2.34	2.36	2.36	2.4	2.56	2.7	2.7	2.7	...
Italy	2.2	2.08	2.12	2.12	2.08	2.12	2.1	2.04	2.04	2.1	2.14	2.16	...
Sweden	1.24	1.62	1.66	1.68	1.7	1.72	1.7	1.66	1.72	1.84	1.82	1.78	...

Private sector expenditure on health as % of total health expenditure, WHO estimates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	20.62	20.62	20.34	21.08	21.18	21.16	21.26	21.66	23.22	23.02	23.08	23.26	...
Italy	27.5	25.36	25.5	25.52	24.04	23.8	23.42	23.46	22.5	22.12	22.38	22.76	...
Sweden	15.12	18.18	17.96	18	18.64	18.84	18.88	18.64	18.5	18.5	18.96	19.06	...

Private households' out-of-pocket payment on health as % of total health expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	7.1	7.18	6.98	6.66	6.56	6.62	6.6	7.02	7.56	7.42	7.42	7.46	...
Italy	24.5	22.16	22.4	22.38	21.2	20.48	19.88	20.12	19.66	19.66	19.6	19.94	...
Sweden	13.78	15.88	15.54	15.9	16.32	16.7	16.64	16.5	16.36	16.4	16.82	16.92	...

Private households' out-of-pocket payment on health as % of private sector health expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	34.44	34.8	34.28	31.58	31	31.28	31.02	32.42	32.54	32.18	32.18	32.08	...
Italy	89.14	87.36	87.82	87.76	88.14	86	84.88	85.76	87.38	88.86	87.58	87.58	...
Sweden	91.14	87.34	86.6	88.38	87.56	88.56	88.16	88.46	88.46	88.68	88.78	88.78	...

Total pharmaceutical expenditure as % of total health expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	16.5	16.9	16.8	16.8	16.8	16.7	16.5	16.5	16.3	16	15.9	15.6	...
Italy	21.7	22.2	22.1	21.5	20.9	19.9	19.6	19.2	18.1	17.5	16.9	16.2	15.7
Sweden	13.8	14	14	13.6	13.5	13.4	13.4	13.1	12.9	12.7	12.5	12.1	...

Public pharmaceutical expenditure as % of total pharmaceutical expenditure

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	66.9	68	68.8	69.2	69.6	70	69.3	69.6	67.5	67.7	67.8	68	...
Italy	45.9	55.1	52.8	50.5	51.6	51.1	51.3	49.4	48.4	49.2	48.8	46.6	45.5
Sweden	70	62.5	62.6	62.8	62.3	61.9	60.5	60.4	59.7	58.7	58.9	58.3	...

Pharmaceutical expenditure, PPP$ per capita

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	419.7	460.3	490.3	495.9	519.5	544.8	568.3	595.1	613.5	633.9	637.3	641.1	...
Italy	440.1	489	487.9	479.4	489.8	492.8	527	522.2	537.8	529.8	509.8	487.3	482.2
Sweden	315.9	349.7	378.6	385.2	399.8	395.6	427.3	448.8	471.7	472	463.9	474	...

Source: European Health For All Database, HFA-DB, (2013)

Table A.2 Hospitals and patients

Number of hospitals

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	3120	3089	3057	3000	2960	2924	2883	2845	2790	2757	2707	2698	...
Italy	1321	1307	1286	1281	1296	1295	1283	1271	1259	1241	1230	1182	...
Sweden	89	77	80	81	...	...	...	...	...	...	...	...	77*

Number of acute (short-stay) hospitals

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	2172	2159	2147	2105	2075	2056	2023	1993	1950	1923	1892	1876	...
Italy	1150	1144	1138	1108	1106	1123	1120	1134	1094	1081	1076	1025	...
Sweden	80	76	77	78	...	...	...	...	...	...	...	...	...

Number of private in-patient hospital beds

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	166497	163513	161980	160405	158401	157306	157022	156786	156287	156175	156068	156744	...
Italy	...	...	...	71972	71113	72680	73527	72355	70623	69486	68200	65557	...
Sweden	...	...	...	...	...	...	...	...	...	...	...	...	1100*

Private in-patient hospital beds as % of all beds

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	34.38	34.13	34.07	34.24	34.28	34.56	34.81	34.79	35.28	36.35	37.45	37.75	...
Italy	...	...	...	30.04	30.66	31.01	31.67	31.69	31.67	31.84	31.58	31.53	...
Sweden	...	...	...	...	...	...	...	...	...	...	...	...	...

Total number of hospital beds

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	484279	479025	475431	468418	462143	455175	451110	450615	443008	429674	416710	415209	...
Italy	268057	262861	253411	239566	231915	234375	232168	228286	223015	218264	215980	207947	...
Sweden	31765	29122	27925	27332	27088	26478	26223	26196	25862	25653	25566	25566	...

In-patient care discharges per 100

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	...	...	...	...	...	...	19.13	18.96	19.22	19.01	...	...	...
Italy	16.3	16.65	16.13	15.27	14.97	14.65	14.47	13.93	13.57	13.28	12.87	12.29	11.77
Sweden	16.18	15.91	15.75	15.75	15.81	15.9	16.03	16.15	16.19	16.3	16.28	16.45	...

Average length of stay, all hospitals

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	...	...	...	...	...	...	16.62	16.45	16.66	16.45	...	...	...
Italy	15.83	16.08	15.53	14.66	14.34	14	13.78	13.26	12.91	12.61	12.19	11.61	11.08
Sweden	15.3	15.06	14.9	14.88	14.9	15	15.13	15.25	15.26	15.34	15.33	15.51	...

Acute care hospital discharges per 100

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
016 France	...	...	...	...	...	...	16.62	16.45	16.66	16.45	...	...	...
024 Italy	15.83	16.08	15.53	14.66	14.34	14	13.78	13.26	12.91	12.61	12.19	11.61	11.08
045 Sweden	15.3	15.06	14.9	14.88	14.9	15	15.13	15.25	15.26	15.34	15.33	15.51	...

Average length of stay, acute care hospitals only

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	5.6	5.7	5.7	5.6	5.5	5.4	5.3	5.3	5.2	5.2	5.2	5.1	...
Italy	7	7	6.7	6.7	6.7	6.7	6.7	6.7	6.8	6.7	6.7	6.8	6.8
Sweden	5.89	5.83	5.74	5.67	5.55	5.48	5.48	5.5	5.5	5.43	5.23	5.13	...

Outpatient contacts per person per year

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	6.9	7.4	7.3	7.2	7	7	6.8	6.8	6.7	6.7	6.7	6.8	...
Italy	6.1	...	...	...	...	7	...	...	...	...	...	...	...
Sweden	2.8	2.9	3	2.82	2.85	2.84	2.88	2.8	2.85	2.88	3.05	3.05	...

Source: European Health For All Database, HFA-DB, (2013), *Anell et al., (2012)

Table A.3 Physicians

Number of physicians, physical persons (PP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	...	...	...	...	...	...	...	...	...	...	...	199920	201811
Italy	...	...	...	...	...	...	...	...	...	221235	...	248723	...
Sweden	...	...	...	...	...	...	...	...	...	...	...	...	...

Physicians, medical group of specialties (PP), per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	77.59	78.79	79.59	80.08	80.59	80.56	79.88	79.49	79.72	78.77	77	81.07	84.36
Italy	...	...	...	...	...	...	...	...	...	126.47	...	134.52	...
Sweden	69.88	71.6	74.07	76.33	78.01	79.74	81.55	84.37	84.65	85.96	87.61	...	...

Physicians, surgical group of specialties (PP), per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	42.93	43.52	43.88	43.88	44.31	44.62	44.74	44.69	44.83	43.87	43.2	44.54	46.51
Italy	...	...	...	...	...	...	...	...	...	83.17	...	102.17	...
Sweden	49.59	50.64	52.22	53.92	55.74	56.54	57.97	59.37	60.37	61.57	62.52	...	...

Physicians, obstetric & gynaecological group of specialties (PP), per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	12.02	12.18	12.24	12.23	12.28	12.34	12.38	12.44	12.61	12.49	12.22	12.37	12.73
Italy	...	...	...	...	...	...	...	...	...	20.52	...	21.57	...
Sweden	12.47	12.59	12.84	13.02	13.41	13.52	13.79	14	14.13	14.12	14.22	...	...

Physicians, paediatric group of specialties (PP), per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	10.87	11.06	11.11	11.18	11.27	11.36	11.38	11.4	11.47	11.39	11.16	11.44	12.01
Italy	12.57	12.64	12.7	12.77	12.75	12.73	12.77	12.9	12.78	12.78	12.76	12.71	...
Sweden	9.06	9.26	9.18	9.47	9.63	9.69	10.12	10.06	10.21	10.4	10.36	...	...

General practitioners (PP) per 100000

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	166.71	168.02	168.71	169.48	169.88	169.96	168.85	167.7	167.75	164.99	159.4	156.49	160.53
Italy	82.83	82.56	82.07	81.78	80.9	80.23	78.85	79.09	77.73	76.77	75.85	75.9	...
Sweden	52.91	54.78	56.16	57.24	57.8	59.09	60.57	61.87	62.22	63.25	62.86	...	...

Number of physicians, medical group of specialties (PP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	45696	46636	47496	48173	48870	49139	49207	49257	49532	49343	49883	52788	53496
Italy	...	...	...	...	...	...	...	...	...	76124	...	81634	...
Sweden	6200	6370	6611	6838	7016	7200	7405	7718	7804	7993	8216	...	...

Number of physicians, surgical group of specialties (PP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	25282	25760	26189	26395	26872	27218	27556	27692	27854	27477	27988	29004	29498
Italy	...	...	...	...	...	...	...	...	...	50060	...	62005	...
Sweden	4400	4505	4661	4830	5013	5105	5264	5431	5566	5725	5863	...	...

Number of physicians, obstetric & gynaecological group of specialties (PP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	7080	7210	7307	7356	7446	7527	7625	7709	7833	7824	7913	8052	8076
Italy	...	...	...	...	...	...	...	...	...	12349	...	13090	...
Sweden	1106	1120	1146	1166	1206	1221	1252	1281	1303	1313	1334	...	...

Number of physicians, paediatric specialties (PP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	6404	6546	6628	6727	6835	6932	7009	7066	7125	7134	7232	7450	7615
Italy	7155	7199	7257	7358	7416	7459	7526	7657	7649	7695	7718	7716	...
Sweden	804	824	819	848	866	875	919	920	941	967	972	...	...

Number of general practitioners (PP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	98183	99455	100682	101953	103020	103669	104007	103914	104225	103349	103262	101896	101803
Italy	47148	47027	46907	47111	47061	47022	46478	46961	46510	46209	45878	46061	...
Sweden	4694	4873	5012	5128	5198	5336	5500	5660	5736	5881	5895	...	...

Source: European Health For All Database, HFA-DB, (2013)

Table A.4 Population composition

Crude death rate per 1000 population

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	9.01	8.97	8.97	9.18	8.4	8.65	8.38	8.4	8.57	8.58	...	...	...
Italy	9.84	9.78	9.8	10.22	...	...	9.48	9.65	9.72	9.78	9.67	...	...
Sweden	10.54	10.54	10.65	10.38	10.13	10.16	10.05	10.04	9.93	9.7	9.65	...	...

Total fertility rate

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	1.89	1.89	1.88	1.89	1.9	1.94	2	1.98	2.01	2	2.03	...	...
Italy	1.26	1.26	1.26	1.28	1.33	1.32	1.35	1.37	1.41	...	...	...	...
Sweden	1.55	1.57	1.65	1.72	1.76	1.77	1.86	1.88	1.91	1.94	1.98	1.9	...

Labour force as % of population

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	44.44	44.54	44.74	44.55	44.56	44.49	44.38	44.24	...	...	...	...	...
Italy	41.3	41.47	41.64	41.77	41.67	41.74	41.76	41.78	...	...	...	...	...
Sweden	51.92	52.19	52.19	52.26	51.86	51.87	51.87	51.88	...	...	...	...	...

Population aged 0-14 years (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	18.83	18.76	18.67	18.58	18.5	18.42	18.33	18.3	18.28	18.37	...	...	...
Italy	14.31	14.26	14.22	14.18	14.13	...	14.09	14.05	14.04	14.04	14.05	...	...
Sweden	18.43	18.27	18.11	17.92	17.69	17.41	17.13	16.9	16.73	16.63	16.6	...	...

Population aged 65+ years (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	16.08	16.18	16.24	16.3	16.38	16.44	16.54	16.56	16.6	16.74	...	...	...
Italy	18.11	18.43	18.86	19.12	19.34	...	19.84	19.99	20.08	20.18	20.26	...	...
Sweden	17.26	17.22	17.18	17.16	17.21	17.27	17.33	17.43	17.64	17.94	18.28	...	...

Population aged 0-14 years (%), males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	19.84	19.77	19.67	19.58	19.48	19.4	19.39	19.35	19.33	19.42	...	...	...
Italy	15.17	15.12	15.08	15.03	14.97	...	14.91	14.88	14.86	14.88	14.88	...	...
Sweden	19.13	18.95	18.77	18.57	18.32	18.02	17.7	17.44	17.26	17.16	17.13	...	...

Population aged 65+ years (%), males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	13.42	13.54	13.63	13.71	13.81	13.89	13.95	14	14.05	14.26	...	...	...
Italy	15.36	15.66	16.01	16.27	16.5	...	17.02	17.2	17.33	17.47	17.6	...	...
Sweden	14.8	14.79	14.81	14.85	14.95	15.07	15.18	15.36	15.65	16.01	16.42	...	...

Population aged 0-14 years (%), females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	17.87	17.81	17.72	17.65	17.56	17.49	17.33	17.31	17.29	17.39	...	...	...
Italy	13.5	13.45	13.41	13.38	13.35	...	13.31	13.27	13.25	13.26	13.26	...	...
Sweden	17.75	17.61	17.46	17.29	17.08	16.82	16.56	16.36	16.2	16.1	16.09	...	...

Population aged 65+ year (%), females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	18.58	18.67	18.72	18.75	18.8	18.84	18.96	18.96	18.99	19.07	...	...	...
Italy	20.69	21.03	21.53	21.81	22.02	...	22.5	22.62	22.67	22.73	22.77	...	...
Sweden	19.68	19.59	19.5	19.44	19.43	19.44	19.44	19.48	19.62	19.85	20.12	...	...

Source: European Health For All Database, HFA-DB, (2013)

Table A.5 Life expectancy

Life expectancy at birth, in years

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	79.35	79.43	79.55	79.44	80.5	80.49	81.16	81.47	81.43	81.76	...	...	...
Italy	79.75	80.09	80.38	80.17	...	...	81.58	81.7	81.91	82.07	82.5	...	...
Sweden	79.92	80.01	80.09	80.37	80.55	80.82	81.05	81.19	81.35	81.61	81.77	...	...

Life expectancy at age 1, in years

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	78.69	78.79	78.87	78.76	79.82	79.77	80.45	80.76	80.71	81.05	...	...	...
Italy	79.11	79.46	79.73	79.49	...	...	80.88	80.98	81.19	81.37	81.77	...	...
Sweden	79.19	79.3	79.35	79.62	79.8	80.02	80.28	80.39	80.56	80.81	80.98	...	...

Life expectancy at age 15, in years

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	64.87	64.97	65.04	64.92	65.96	65.91	66.58	66.89	66.84	67.18	...	...	...
Italy	65.26	65.62	65.89	65.63	...	...	67	67.11	67.31	67.49	67.89	...	...
Sweden	65.31	65.43	65.47	65.75	65.98	66.16	66.4	66.5	66.66	66.95	67.08	...	...

Life expectancy at age 45, in years

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	36.35	36.45	36.46	36.26	37.24	37.16	37.79	38.06	37.99	38.35	...	...	...
Italy	36.39	36.73	36.97	36.67	...	...	37.95	38.04	38.19	38.34	38.69	...	...
Sweden	36.25	36.35	36.38	36.65	36.94	37.01	37.26	37.37	37.53	37.78	37.88	...	...

Life expectancy at age 65, in years

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	19.48	19.58	19.56	19.34	20.26	20.16	20.81	21.05	20.98	21.3	...	...	...
Italy	18.83	19.15	19.34	19.02	...	...	20.16	20.21	20.33	20.47	20.76	...	...
Sweden	18.68	18.75	18.69	18.94	19.27	19.27	19.49	19.55	19.69	19.92	19.95	...	...

Estimated life expectancy, (World Health Report)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	79	...	...	...	...	...	...	...	...	...	...	82	...
Italy	79	...	...	...	...	...	...	...	...	...	...	82	...
Sweden	80	...	...	...	...	...	...	...	...	...	...	82	...

Life expectancy at birth, in years, males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	75.49	75.64	75.88	75.93	76.89	76.93	77.51	77.78	77.85	78.19	...	...	...
Italy	76.65	76.96	77.27	77.24	...	...	78.62	78.84	79.09	79.32	79,75	...	...
Sweden	77.51	77.67	77.85	78.06	78.33	78.57	78.88	79.12	79.29	79.53	79,73	...	...

Life expectancy at age 1, in years, males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	74.87	75.01	75.22	75.28	76.22	76.24	76.82	77.09	77.15	78,49	...	...	...
Italy	76.01	76.34	76.64	76.56	...	...	77.94	78.13	78.38	78.63	79,03	...	...
Sweden	76.81	76.98	77.12	77.34	77.59	77.77	78.12	78.33	78.49	78.74	78,95	...	...

Life expectancy at age 15, in years, males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	61.06	61.21	61.39	61.45	62.38	62.39	62.97	63.23	63.28	63,63	...	...	...
Italy	62.17	62.51	62.82	62.71	...	...	64.07	64.26	64.52	64.76	65,15	...	...
Sweden	62.93	63.11	63.26	63.49	63.76	63.93	64.25	64.44	64.59	64.9	65,05	...	...

Life expectancy at age 45, in years, males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	32.99	33.15	33.26	33.21	34.05	34.01	34.54	34.77	34.79	35,16	...	...	...
Italy	33.66	33.98	34.25	34.09	...	...	35.33	35.51	35.69	35.87	36,2	...	...
Sweden	34.14	34.32	34.4	34.59	34.95	35.01	35.32	35.54	35.7	35.97	36,07	...	...

Life expectancy at age 65, in years, males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	16.94	17.1	17.18	17.11	17.82	17.8	18.33	18.53	18.53	18,86	...	...	...
Italy	16.63	16.92	17.1	16.94	...	...	17.99	18.11	18.25	18.4	18,67	...	...
Sweden	16.81	17.01	17.01	17.15	17.55	17.52	17.81	18.04	18.14	18.36	18,43	...	...

Estimated life expectancy, (World Health Report), males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	76	...	...	...	...	...	...	...	...	...	...	78	...
Italy	77	...	...	...	...	...	...	...	...	...	...	80	...
Sweden	78	...	...	...	...	...	...	...	...	...	...	80	...

Life expectancy at birth, in years, females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	83.15	83.17	83.14	82.88	83.99	83.94	84.65	85.01	84.84	85.19	...	...	...
Italy	82.68	83.05	83.3	82.92	...	...	84.33	84.35	84.52	84.62	85,04	...	...
Sweden	82.26	82.27	82.26	82.62	82.67	82.99	83.15	83.19	83.36	83.61	83,74	...	...

Life expectancy at age 1, in years, females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	82.46	82.5	82.45	82.17	83.28	83.2	83.92	84.26	84.11	84,45	...	...	...
Italy	82.02	82.41	82.62	82.23	...	...	83.6	83.62	83.79	83.9	84,3	...	...
Sweden	81.49	81.54	81.51	81.83	81.92	82.19	82.37	82.38	82.56	82.81	82,94	...	...

Life expectancy at age 15, in years, females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	68.62	68.66	68.6	68.32	69.41	69.32	70.04	70.38	70.23	70,57	...	...	...
Italy	68.17	68.54	68.76	68.36	...	...	69.72	69.74	69.9	70.01	70,41	...	...
Sweden	67.6	67.68	67.61	67.93	68.12	68.31	68.47	68.5	68.66	68.92	69,05	...	...

Life expectancy at age 45, in years, females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	39.56	39.6	39.5	39.17	40.24	40.12	40.82	41.12	40.98	41,32	...	...	...
Italy	38.87	39.22	39.42	38.99	...	...	40.29	40.31	40.44	40.55	40,93	...	...
Sweden	38.24	38.26	38.23	38.59	38.81	38.9	39.1	39.08	39.26	39.48	39,59	...	...

Life expectancy at age 65, in years, females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	21.59	21.64	21.53	21.18	22.26	22.12	22.84	23.13	23	23,33	...	...	...
Italy	20.65	20.99	21.18	20.73	...	...	21.94	21.94	22.06	22.18	22,51	...	...
Sweden	20.32	20.26	20.16	20.51	20.77	20.83	20.97	20.88	21.06	21.29	21,3	...	...

Estimated life expectancy, (World Health Report), females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	83	...	...	...	...	...	...	...	...	...	...	85	...
Italy	82	...	...	...	...	...	...	...	...	...	...	85	...
Sweden	82	...	...	...	...	...	...	...	...	...	...	84	...

Source: European Health For All Database, HFA-DB, (2013)

Table A.6 Healthy life years

Healthy life years in absolute value at 50, females

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	20	20	19,7	20	20,1	19,2	19,5	19,5	20,1
Italy	24,1	21,2	19	17,4	16,7	17,2	21,1	16,8	16,9
Sweden	19,4	20,5	24,2	23,7	24,3	24,9	26	25,6	26

Healthy life years in absolute value at 65, females

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	10	9,7	9,6	9,9	10,1	9,5	9,8	9,9	10,4
Italy	12,5	10,2	8,8	7,6	7,1	7,2	10	7	7,2
Sweden	11,1	11,1	14,2	13,9	14	14,7	15,5	15,2	15,4

Healthy life years in absolute value at 50, males

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	17,6	18,2	18,4	18,5	18,1	18,5	18,2	19,1	19
Italy	22,6	20,9	19,6	18,3	17,8	18,2	21,2	17,9	17,5
Sweden	19,1	20,4	23	23,3	23,7	24,8	25,4	25	25,2

Healthy life years in absolute value at 65, males

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	8,5	8,5	8,7	8,9	8,7	9	9	9,7	9,5
Italy	11,4	9,9	9	8,1	7,6	8	10,2	8,1	7,8
Sweden	10,1	10,7	13	13	13,1	13,6	14,1	13,9	14

Health expectancy in absolute values at birth, based on self-perceived health, females

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	74,8	75,0	75,7	76,2	77,0	76,9	77,1	77,6	78
Italy	74,5	75,3	74,9	74,6	75,0	75,4	76,5	74,1	74,7
Sweden	76,7	77,8	78,1	79,0	79,2	79,2	79,4	79,9	80,2

Health expectancy in absolute values at 50, based on self-perceived health, females

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	27,6	27,8	28,4	28,6	29,4	29,3	29,8	30,4	30,7
Italy	26,7	27,2	27,0	26,6	27,0	27,3	28,3	26,1	26,7
Sweden	29,8	30,3	30,9	31,6	31,4	31,6	31,7	32,0	32,2

Health expectancy in absolute values at 65, based on self-perceived health, females

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	15,9	15,9	16,4	16,7	17,3	17,2	17,6	18,3	18,5
Italy	14,4	14,8	14,5	14,2	14,6	14,7	15,7	13,9	14,2
Sweden	17,8	17,8	18,5	19,2	19,1	19,3	19,1	19,3	19,6

Health expectancy in absolute values at birth, based on self-perceived health, males

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	69,7	70,6	71,4	71,7	72,6	72,2	72,6	73,2	73,2
Italy	71,9	72,3	72,3	72,5	72,6	73,0	74,3	72,4	72,8
Sweden	74,2	75,1	75,6	75,8	76,2	76,3	77,2	77,2	77,1

Health expectancy in absolute values at 50, based on self-perceived health, males

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	23,6	24,3	24,8	25,0	25,6	25,5	25,8	26,5	26,7
Italy	24,8	25,2	25,1	25,3	25,4	25,6	26,6	25,1	25,4
Sweden	27,6	27,6	28,2	28,2	28,5	28,8	29,5	29,3	29,5

Health expectancy in absolute values at 65, based on self-perceived health males,

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	13,1	13,3	13,8	13,9	14,6	14,3	14,8	15,4	15,4
Italy	13,1	13,2	13,1	13,4	13,3	13,5	14,4	13,3	13,5
Sweden	15,8	15,7	16,2	16,0	16,4	16,5	17,0	16,7	16,9

Source: Eurostat (2013a)

Table A.7 Self-perceived health

Self-perceived health (%), very good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	25,2	24,4	25,1	27,2	24,6	25,1	23,2	22,6	25,2
Italy	13,9	13,9	13,4	12,3	12,9	13,3	14,9	13,1	13,7
Sweden	36,4	37,1	34,0	37,8	37,2	39,1	36,7	38,5	35,8

Self-perceived health (%), good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	42,4	44,3	44,1	43,9	44,5	43,5	44,1	45,0	42,9
Italy	43,5	44,2	43,5	51,1	50,6	50,5	51,9	51,6	54,7
Sweden	35,3	38,5	41,9	39,8	41,3	40,6	43,3	41,4	45,3

Self-perceived health (%), fair

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	21,6	21,4	21,2	20,0	22,4	22,4	23,8	23,6	23,4
Italy	32,0	32,0	32,6	25,5	25,4	25,4	23,8	22,2	19,2
Sweden	21,0	18,4	18,2	17,2	16,4	15,2	15,4	15,4	14,7

Self-perceived health (%), bad

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	8,6	8,5	8,2	7,7	7,4	8,0	7,5	7,6	7,4
Italy	8,5	8,1	8,7	8,6	8,8	8,4	7,4	10,2	9,5
Sweden	5,6	4,4	4,8	4,2	4,1	4,0	3,7	3,7	3,1

Self-perceived health (%), very bad

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	2,1	1,4	1,4	1,2	1,1	1,1	1,4	1,2	1,1
Italy	2,1	1,8	1,9	2,4	2,3	2,4	2,0	3,0	2,9
Sweden	1,7	1,6	1,0	1,0	1,0	1,1	1,0	1,0	1,2

Self-perceived health, males (%), very good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	27,3	27,2	27,7	30,0	27,1	28,0	25,0	25,1	27,1
Italy	16,1	15,9	14,9	13,9	14,5	14,9	16,6	14,3	15,5
Sweden	38,8	40,3	36,2	39,9	39,2	41,3	38,7	41,5	38,2

Self-perceived health, males (%), good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	42,9	44,4	44,4	44,1	44,7	43,3	44,8	46,0	43,3
Italy	45,2	46,4	45,9	54,0	53,3	53,3	53,9	53,5	56,7
Sweden	36,1	38,2	42,3	40,2	42,2	41,8	43,5	40,4	44,8

Self-perceived health, males (%), fair

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	19,8	19,7	19,6	18,3	21,0	20,6	22,4	21,2	22,1
Italy	29,9	29,6	30,6	23,2	22,9	22,9	21,9	21,2	17,4
Sweden	19,0	16,5	16,7	15,2	14,2	12,7	14,2	14,3	13,2

Self-perceived health, males (%), bad

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	7,7	7,3	6,9	6,5	6,4	7,2	6,5	6,6	6,5
Italy	7,0	6,8	7,0	6,9	7,3	6,9	5,9	8,4	7,8
Sweden	4,6	3,4	3,9	3,8	3,3	3,4	2,9	3,1	2,9

Self-perceived health, males (%), very bad

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	2,2	1,5	1,3	1,2	0,8	0,9	1,3	1,1	1,1
Italy	1,7	1,5	1,6	2,0	2,0	2,0	1,7	2,5	2,7
Sweden	1,5	1,5	0,8	0,8	1,0	0,9	0,7	0,7	0,9

Self-perceived health, females (%), very good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	23,2	21,8	22,7	24,7	22,4	22,5	21,5	20,3	23,4
Italy	11,8	12,1	11,9	10,8	11,3	11,8	13,3	11,9	12,1
Sweden	34,0	34,0	32,0	35,7	35,1	37,0	34,7	35,6	33,4

Self-perceived health, females (%), good

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	42,0	44,2	43,9	43,7	44,4	43,6	43,5	44,0	42,5
Italy	41,9	42,2	41,2	48,5	48,2	47,8	50,0	49,7	52,9
Sweden	34,5	38,8	41,5	39,5	40,3	39,5	43,2	42,5	45,7

Self-perceived health, females (%), fair

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	23,4	23,0	22,6	21,6	23,8	24,0	25,0	25,8	24,6
Italy	34,0	34,3	34,5	27,7	27,7	27,8	25,5	23,1	20,8
Sweden	22,9	20,2	19,6	19,1	18,6	17,5	16,5	16,6	16,2

Self-perceived health, females (%), bad

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	9,5	9,6	9,3	8,7	8,2	8,6	8,5	8,5	8,2
Italy	9,9	9,3	10,2	10,2	10,2	9,8	8,8	11,8	11,0
Sweden	6,6	5,4	5,7	4,5	4,9	4,6	4,5	4,2	3,2

Self-perceived health, females (%), very bad

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	2,0	1,4	1,4	1,3	1,3	1,3	1,5	1,3	1,2
Italy	2,4	2,1	2,2	2,8	2,5	2,8	2,4	3,5	3,2
Sweden	2,0	1,6	1,2	1,2	1,1	1,3	1,2	1,2	1,4

Source: Eurostat (2013a)

Table A.8 Morbidity

People having a long-standing illness or health problem, (%), all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	36,1	34,6	34,5	31,9	36,7	37,1	36,9	36,2	36,3
Italy	21,1	21,7	21,4	20,6	21,9	21,4	22,0	25,3	23,4
Sweden	49,7	41,4	33,7	33,4	32,8	32,5	30,6	32,2	33,8

People having a long-standing illness or health problem, (%), 16 to 24 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	13,3	13,0	13,6	12,5	13,7	14,7	14,6	12,9	14,0
Italy	3,9	4,9	6,4	4,7	5,6	5,3	6,3	5,3	5,0
Sweden	27,5	22,7	20,0	16,7	19,4	18,1	15,8	16,0	17,9

People having a long-standing illness or health problem, (%), 25 to 34 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	19,1	18,3	19,8	19,4	18,9	18,6	18,5	20,2	19,3
Italy	7,3	7,1	9,4	7,4	8,8	7,5	9,2	7,1	5,8
Sweden	33,4	24,9	23,0	19,3	20,9	19,8	18,3	20,3	21,6

People having a long-standing illness or health problem, (%), 35 to 44 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	25,7	24,4	21,3	22,3	24,8	25,3	26,2	25,4	25,5
Italy	11,0	11,7	13,4	11,5	11,6	11,1	11,9	12,9	10,7
Sweden	39,0	32,3	28,4	27,1	22,7	24,1	25,7	25,9	28,3

People having a long-standing illness or health problem, (%), 45 to 54 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	35,3	32,9	31,4	32,4	35,4	35,7	36,4	34,6	34,5
Italy	17,0	18,0	16,9	16,4	16,8	16,2	17,8	20,8	17,1
Sweden	48,7	40,3	37,8	37,6	32,8	29,6	30,2	33,4	33,7

People having a long-standing illness or health problem, (%), 55 to 64 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	48,8	44,9	45,9	45,1	48,2	48,5	46,5	47,3	46,9
Italy	28,9	28,3	23,4	25,1	25,7	25,7	25,1	31,1	27,8
Sweden	62,0	52,3	43,3	45,2	44,0	42,4	39,5	40,7	44,0

People having a long-standing illness or health problem, (%), 65 to 74 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	61,6	59,4	58,5	56,8	60,9	59,0	58,6	56,1	56,0
Italy	40,2	40,1	36,3	36,9	37,5	37,1	36,5	45,1	41,8
Sweden	71,1	61,0	46,2	48,5	47,5	46,4	41,9	43,2	42,9

People having a long-standing illness or health problem, (%), 75 years or over

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	69,5	68,3	69,7	69,0	70,8	71,1	70,9	70,4	69,5
Italy	53,5	54,7	52,1	51,8	57,1	54,8	55,5	61,5	61,8
Sweden	80,4	80,3	50,6	53,3	53,0	56,1	48,6	52,3	53,6

People having a long-standing illness or health problem, males (%), all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	34,7	33,6	32,9	30,1	35,2	35,1	35,1	34,1	34,7
Italy	19,3	20,3	19,5	18,4	20,2	19,2	20,3	23,1	21,2
Sweden	47,4	37,0	32,2	31,1	29,1	28,7	27,2	29,2	30,4

People having a long-standing illness or health problem, males (%), 16 to 24 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	12,3	11,1	12,5	10,9	12,4	13,5	12,1	10,8	12,4
Italy	4,2	4,9	5,2	3,9	5,3	5,8	7,2	6,2	5,2
Sweden	27,8	20,7	19,7	14,6	16,7	13,5	12,0	13,0	15,1

People having a long-standing illness or health problem, males (%), 25 to 34 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	19,6	19,7	19,1	18,7	18,7	18,2	17,9	18,7	18,3
Italy	7,1	7,4	8,7	6,7	9,9	7,3	8,9	7,0	6,1
Sweden	33,0	23,2	23,7	18,9	18,1	19,9	17,4	18,3	20,8

People having a long-standing illness or health problem, males (%), 35 to 44 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	24,7	24,4	20,5	21,1	24,3	24,1	24,5	24,8	24,1
Italy	10,7	11,2	13,2	9,9	11,2	10,1	11,0	11,1	10,1
Sweden	36,3	29,0	26,1	25,5	18,6	19,9	21,3	23,4	27,2

People having a long-standing illness or health problem, males (%), 45 to 54 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	34,8	32,1	30,0	29,7	33,0	34,3	34,3	31,7	33,7
Italy	16,6	17,8	16,5	14,8	15,3	14,8	17,7	19,6	16,5
Sweden	47,8	36,0	37,0	34,7	29,3	26,4	27,4	31,8	27,5

People having a long-standing illness or health problem, males (%), 55 to 64 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	49,2	45,6	45,3	44,3	47,6	47,5	46,1	46,6	46,3
Italy	27,7	28,0	21,5	24,4	25,1	25,3	25,1	31,0	26,8
Sweden	60,1	49,3	40,7	41,9	41,4	37,5	35,4	37,0	40,3

People having a long-standing illness or health problem, males (%), 65 to 74 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	61,6	59,4	58,5	56,8	60,9	59,0	58,6	56,1	56,0
Italy	40,2	40,1	36,3	36,9	37,5	37,1	36,5	45,1	41,8
Sweden	71,1	61,0	46,2	48,5	47,5	46,4	41,9	43,2	42,9

People having a long-standing illness or health problem, males (%), 75 years or over

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	69,1	68,5	70,8	70,4	72,6	71,2	74,0	71,3	70,8
Italy	50,3	53,6	50,6	50,9	56,1	50,9	53,1	58,9	57,1
Sweden	77,9	76,5	50,0	53,5	53,6	52,3	50,4	53,1	53,1

People having a long-standing illness or health problem, females (%), all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	37,4	35,5	35,9	33,6	38,1	38,9	38,6	38,1	37,7
Italy	22,8	23,1	23,1	22,7	23,6	23,4	23,6	27,4	25,4
Sweden	52,0	45,6	35,3	35,7	36,6	36,3	34,0	35,2	37,2

People having a long-standing illness or health problem, females (%), 16 to 24 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	14,3	14,8	14,6	13,9	15,1	15,8	17,1	15,1	15,7
Italy	3,6	4,9	7,7	5,5	6,0	4,8	5,4	4,3	4,8
Sweden	27,3	24,8	20,4	19,0	22,3	23,0	19,9	19,2	20,8

People having a long-standing illness or health problem, females (%), 25 to 34 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	18,6	17,0	20,5	20,1	19,2	19,0	19,1	21,6	20,2
Italy	7,5	6,9	10,0	8,2	7,6	7,7	9,5	7,1	5,6
Sweden	33,9	26,7	22,4	19,7	23,8	19,6	19,3	22,4	22,4

People having a long-standing illness or health problem, females (%), 35 to 44 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	26,6	24,4	22,1	23,4	25,3	26,6	27,8	25,9	27,0
Italy	11,3	12,3	13,5	13,2	12,1	12,0	12,9	14,6	11,3
Sweden	41,9	35,8	30,8	28,8	26,9	28,5	30,2	28,5	29,4

People having a long-standing illness or health problem, females (%), 45 to 54 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	35,8	33,7	32,8	34,7	37,6	36,9	38,4	37,5	35,2
Italy	17,3	18,2	17,2	18,0	18,3	17,6	18,0	22,1	17,6
Sweden	49,4	44,6	38,6	40,6	36,4	33,0	33,0	34,9	40,3

People having a long-standing illness or health problem, females (%), 55 to 64 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	48,5	44,2	46,6	45,9	48,9	49,6	46,8	47,9	47,5
Italy	30,0	28,6	25,3	25,9	26,4	26,1	25,1	31,2	28,9
Sweden	64,1	55,4	45,9	48,5	46,7	47,3	43,5	44,4	47,7

People having a long-standing illness or health problem, females (%), 65 to 74 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	62,0	59,1	57,6	57,3	59,7	60,3	58,7	55,4	54,7
Italy	41,5	40,7	36,5	38,3	38,9	38,6	37,8	46,0	42,7
Sweden	73,1	66,8	49,0	50,5	53,6	47,3	46,6	47,5	47,4

People having a long-standing illness or health problem, females (%), 75 years or over

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	69,7	68,1	69,0	68,1	69,7	71,1	68,9	69,8	68,7
Italy	55,4	55,5	53,0	52,3	57,7	57,2	57,0	63,1	64,8
Sweden	81,9	82,5	51,0	53,1	52,6	58,7	47,4	51,8	54,0

Self-perceived long-standing limitations in usual activities due to health problem (%), some

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	16,1	15,7	16,3	15,1	14,7	15,2	15,7	15,5	16,1
Italy	9,3	12,6	15,9	18,3	19,1	18,7	14,1	18,9	19,6
Sweden	13,0	11,9	11,0	11,4	9,5	9,2	8,4	9,3	9,4

Self-perceived long-standing limitations in usual activities due to health problem (%), severe

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	7,3	6,6	6,3	5,1	8,5	9,0	9,6	9,1	8,6
Italy	5,4	6,1	6,9	7,3	7,7	7,6	5,8	7,7	8,6
Sweden	13,9	10,9	7,5	7,1	6,9	6,2	6,0	6,1	6,0

Self-perceived long-standing limitations in usual activities due to health problem (%), none

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	76,6	77,7	77,4	79,8	76,7	75,8	74,7	75,5	75,3
Italy	85,3	81,3	77,2	74,4	73,2	73,8	80,1	73,3	71,8
Sweden	73,1	77,1	81,5	81,5	83,7	84,5	85,5	84,6	84,6

Self-perceived long-standing limitations in usual activities due to health problem (%), males, some

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	14,8	14,7	14,3	13,6	13,4	13,1	14,7	13,8	15,0
Italy	8,0	10,9	13,3	15,6	16,3	16,0	12,0	16,6	17,8
Sweden	11,7	10,5	10,3	9,8	8,4	7,5	7,0	7,7	7,9

Self-perceived long-standing limitations in usual activities due to health problem (%), males, severe

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	7,1	6,0	5,9	4,6	7,8	8,4	8,5	8,5	7,6
Italy	4,8	5,3	5,9	6,2	6,7	6,5	4,8	6,5	7,3
Sweden	11,9	8,8	6,1	5,8	5,0	4,8	4,6	4,6	5,0

Self-perceived long-standing limitations in usual activities due to health problem (%), males, none

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	78,0	79,3	79,9	81,8	78,8	78,5	76,9	77,7	77,4
Italy	87,2	83,7	80,8	78,2	77,0	77,5	83,1	77,0	75,0
Sweden	76,3	80,6	83,6	84,4	86,6	87,7	88,4	87,7	87,1

Self-perceived long-standing limitations in usual activities due to health problem (%), females, some

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	17,2	16,7	18,2	16,5	15,9	17,1	16,6	17,0	17,1
Italy	10,5	14,2	18,4	20,9	21,6	21,2	16,0	21,1	21,3
Sweden	14,2	13,3	11,8	13,1	10,5	10,9	9,8	10,8	11,0

Self-perceived long-standing limitations in usual activities due to health problem (%), females, severe

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	7,5	7,2	6,7	5,5	9,3	9,5	10,6	9,6	9,5
Italy	6,0	6,8	7,8	8,3	8,7	8,5	6,8	8,9	9,9
Sweden	15,8	12,9	8,8	8,3	8,7	7,6	7,4	7,6	6,9

Self-perceived long-standing limitations in usual activities due to health problem (%), females, none

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	75,3	76,1	75,1	78,0	74,8	73,3	72,8	73,4	73,4
Italy	83,5	79,1	73,8	70,8	69,7	70,3	77,2	69,9	68,8
Sweden	69,9	73,7	79,4	78,6	80,8	81,4	82,7	81,6	82,1

Overweight or obese males, self-reported, Percentage of males with a BMI>25*

	2004	2005	2006	2007	2008	2009	2010	2011
France	39,6*	...	42,5*	...	43,1*	...	49,9*	...
Italy	...	54*	54,2*	54,9*	55,4*	56,5*	55,5*	56,2*
Sweden	50,3*	52*	52,2*	52,2*	52,9*	53*	53,9*	53,6*

Overweight or obese females, self-reported, Percentage of males with a BMI>25**

	2004	2005	2006	2007	2008	2009	2010	2011
France	29,3	...	31,6	...	33,8	...	36,7	...
Italy	...	35,9	36,7	36,8	36,3	37	37,2	36,1
Sweden	35,4	36,6	34,5	37	36,9	37,9	38,8	39

Source: Eurostat (2013a), *OECD, 26 (2013), **OECD, 25 (2013)

Table A.9 Infant and maternal health

Infant deaths per 1000 live births

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	4.39	4.46	4.1	4.02	3.89	3.58	3.57	3.53	3.52	3.49	...	...	...
Italy	4.47	4.64	4.36	3.95	...	...	3.65	3.47	3.51	3.62	3.35	...	...
Sweden	3.42	3.66	3.28	3.12	3.16	2.45	2.81	2.51	2.49	2.49	2.54	...	...

Infant deaths per 1000 live births, males

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	5	4.97	4.5	4.52	4.27	3.99	4.02	4.04	3.8	3.87	...	...	...
Italy	4.73	4.98	4.79	4.13	...	...	4.05	3.68	3.79	3.89	3.63	...	...
Sweden	3.99	4.03	3.52	3.6	3.37	2.52	3.05	2.7	2.5	2.57	2.69	...	...

Infant deaths per 1000 live birth, females

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	3.74	3.93	3.67	3.5	3.48	3.15	3.1	2.99	3.23	3.1	...	...	...
Italy	4.2	4.28	3.91	3.76	...	...	3.21	3.25	3.21	3.35	3.05	...	...
Sweden	2.81	3.27	3.02	2.6	2.94	2.37	2.57	2.32	2.47	2.4	2.38	...	...

Maternal deaths per 100000 live births

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	6.47	7.93	10.66	8.55	7.81	6.08	8.53	8.9	8.04	9.42	...	...	...
Italy	2.97	2.07	3.17	5.18	...	...	1.97	2.3	2.28	3.37	2.87	...	...
Sweden	4.42	3.28	4.17	2.02	1.98	5.92	4.72	1.86	5.49	5.37	2.59	0.89	...

Abortions per 1000 live births

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	248.53	262.81	271.81	267.58	274.35	266.95	270.27	271.4	262.83	263.76	...	...	...
Italy	250.19	248.55	244.69	229.65	245.08	233.33	225.81	221.69	208.81	203.33	...	...	...
Sweden	342.54	347.42	348.22	347.66	341.37	345.13	340.33	346.35	348.15	335.63	325.95	337.75	...

Infants vaccinated against tuberculosis (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	84	84	83	85	85	...	...	99.5	84	78.2	78.2	...	...
Italy	1	1	...	...	...	...	...	...	...	...	...	...	...
Sweden	16	16	16	16	16.2	17	17	18	20.3	21.2	22.7	23	...

Infants vaccinated against diphtheria (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	98	98	98	97	97	...	...	96	98	98.8	98.8	98	...
Italy	87.3	93.4	97	96	96	92	96	...	...	...	...	96	...
Sweden	98.7	98.5	98.3	98.7	98.6	98.7	98.7	98.7	98.3	98.4	98	98	...

Infants vaccinated against tetanus (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	98	98	98	97	97	...	...	96	98	98.8	98.8	98	...
Italy	87.3	93.4	97	96	96	92	96	...	...	...	...	96	...
Sweden	98.7	98.5	98.3	98.7	98.6	98.7	98.7	98.7	98.3	98.4	98	98	...

Infants vaccinated against pertussis (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	98	98	98	97	97	...	...	96	98	98.8	98.8	98	...
Italy	87.3	93.4	97	96	96	92	96	...	...	...	...	96	...
Sweden	98.7	98.5	98.3	98.7	98.6	98.7	98.7	98.7	98.3	98.4	98	98	...

Children vaccinated against measles (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	84	85	85	86	86	...	...	93	87	90.1	90.1	89	...
Italy	74	76.5	77	83	84	87.2	87	...	...	...	...	90	...
Sweden	94.2	88.5	95	95	94.5	95.4	95.4	96.2	96.2	96.7	96.5	96	...

Infants vaccinated against poliomyelitis (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	98	98	98	97	97	...	...	96	98	...	98.6	98	...
Italy	99	99	99	97	97	91.8	96.1	...	...	...	...	96	...
Sweden	99	98.6	99	99	98.6	98.7	98.7	98.7	98.3	98.4	98	98	...

Infants vaccinated against invasive disease, Haemophilius influenzae type b (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	86	86	86	86	86	...	...	70.8	87	96.7	96.7	97	...
Italy	60	75	84	95	90.4	90.5	95.2	...	...	...	...	96	...
Sweden	98	98	98	98.2	98.3	98.5	98.5	98.5	98.1	98.2	97.8	98	...

Infants vaccinated against hepatitis B (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	26	28	29	28	28	...	...	33.1	...	41.9	41.9	51	...
Italy	94	94	97	97	95.3	92.3	96.2	...	...	...	...	96	...
Sweden	...	...	...	1	1.2	1.4	1.7	4.4	15.7	22.5	26.6	29	...

Infants vaccinated against rubella (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	84	84	86	87	...	...	...	93	...	89.5	...	...	...
Italy	...	...	80	...	...	...	87.3	...	...	...	...	...	...
Sweden	94.2	88.5	90.5	...	...	...	95.4	96	96.2	96.7	97	...	...

Source: European Health For All Database, HFA-DB, (2013)

Table A.10 Patient satisfaction

No unmet needs to declare, all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	95,3	96,2	96,3	96,3	96,0	94,9	95,2	94,5	94,5
Italy	92,5	93,1	93,2	93,6	92,8	92,9	92,8	92,8	93,6
Sweden	87,2	84,7	85,0	85,1	87,4	87,8	88,8	88,3	88,5

Unmet needs due to waiting list, all ages

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	0,2	0,2	0,1	0,2	0,2	0,3	0,2	0,4	0,3
Italy	1,5	1,4	1,5	1,4	1,2	1,3	1,4	0,8	0,7
Sweden	1,7	2,1	1,8	2,4	1,8	1,5	1,3	0,8	0,8

No unmet needs to declare, 16 to 64 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	94,6	95,7	95,9	95,9	95,6	94,4	94,5	93,7	93,6
Italy	93,0	93,6	93,5	93,8	93,1	93,1	93,1	93,4	94,0
Sweden	86,5	83,8	83,5	84,0	86,0	86,3	87,4	86,7	86,8

No unmet needs to declare, 65 years and over

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	97,8	97,9	97,6	99,0	97,4	96,9	98,0	97,4	97,4
Italy	90,9	91,6	92,3	92,9	91,8	92,0	91,9	91,0	92,2
Sweden	90,0	88,8	92,6	90,6	92,5	93,0	93,4	93,2	93,6

Unmet needs due to waiting list, 16 to 64 years

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	0,3	0,3	0,1	0,2	0,3	0,3	0,2	0,4	0,4
Italy	1,3	1,2	1,2	1,3	1,1	1,2	1,1	0,6	0,5
Sweden	1,7	2,1	2,0	2,3	1,9	1,6	1,3	0,9	0,9

Unmet needs due to waiting list, 65 years or over

	2004	2005	2006	2007	2008	2009	2010	2011	2012
France	0,1	0,0	0,1	0,0	0,0	0,1	0,1	0,1	0,1
Italy	2,4	2,0	2,2	1,8	1,8	1,7	2,1	1,2	1,2
Sweden	1,6	2,0	1,1	2,5	1,2	1,2	1,1	0,5	0,7

Source: Eurostat (2013b)