

The EU Health Strategy – Investing in Health

Martin Seychell,¹
Bartosz Hackbart²

ABSTRACT

The European Union has gradually developed a consistent and integrated policy framework to respond to common challenges in the field of health that combines legislation, cooperation and financing: the EU Health Strategy “Together for Health”. The economic crisis compounded the existing challenges stemming from changes in demographics and patterns of disease, technological change, as well as major threats to health. It put an additional strain on the sustainability of health systems and raised the urgency to channel EU efforts towards economic recovery and growth as outlined in the Europe 2020 strategy. Acknowledging this new environment, on 20 February 2013 the European Commission adopted a policy framework more closely linking EU social and health policies to Europe 2020: the Social Investment Package (SIP) including a document dedicated to “Investing in Health”. This paper extends the EU Health Strategy by reinforcing its key objectives, firmly anchors health in the Europe 2020 policy framework and reaffirms that health is a value in itself and health spending is a growth friendly expenditure. A healthy population and sustainable health systems are decisive for economic growth. Investing in sustainable health systems means that cost-effective spending, structural reforms and sound innovation can bring efficiency gains and secure better health outcomes. Investing in people’s health also boosts economic growth by enabling individuals to remain active longer and in better health. Finally, investing in health requires reducing health inequalities to break the vicious spiral of poor health contributing to, and resulting from, poverty and exclusion.

Key Words: Public policy, public health, health systems, sustainability, European Union

Recommended Citation: Seychell M, Hackbart B. The EU health strategy – investing in health. *Public Health Reviews*. 2013;35: epub ahead of print.

¹ Deputy Director General for Consumers and Health, European Commission.

² Policy Officer, Directorate General for Consumers and Health, European Commission.

INTRODUCTION

European Union Action in the Field of Health

Starting in the 1980s, the European Union gradually developed a set of activities such as health promotion, education, information, and training, and began developing EU level health data as well as disease-specific programmes. The first programmes focused on cancer and HIV/AIDS: the Europe against Cancer programme¹ and the Europe against AIDS programme.² This led to the adoption of eight programmes between 1996 and 1999. In 1996: health programmes on AIDS,³ cancer,⁴ drug dependence⁵ and health promotion.⁶ In 1997, a programme on health monitoring⁷ and in 1999, health programmes on injury prevention,⁸ rare diseases⁹ and pollution-related diseases.¹⁰ In 2007, the Union adopted a comprehensive EU Health Strategy “Together for Health” that outlined four core principles to guide EU activities: shared health values (including empowerment of citizens, evidence-based policy and reduction in health inequalities); health as the greatest wealth; “health in all policies”; and a strong role of the EU in Global Health. Together for Health guides EU action and strategic objectives to respond to common challenges including¹¹:

- **Fostering good health in an ageing Europe:** demographic changes including population ageing shift disease patterns towards chronic diseases creating a greater demand for healthcare and ultimately put pressure on the sustainability of health systems;
- **Protecting citizens from health threats:** pandemics, major physical and biological incidents and bioterrorism pose potential major threats to health; and
- **Supporting dynamic health systems and new technologies:** rapid development of new technologies brings the promise of revolutionising prevention, management and treatment of diseases, but can also generate substantial costs.

EU action in the field of health is defined by specific provisions from Treaties that have evolved over time (and in the area of public health most significantly with the Treaty on European Union (TEU)¹² informally known as the Treaty of Maastricht) and general principles, such as the subsidiarity principle, which ensures that in the areas of competences shared between the EU and the Member States, the EU intervenes only if it is able to act more effectively than Member States.¹³ Article 168 of the Treaty on the Functioning of the European Union (TFEU) clearly delineates the distribution of competences in the field of health.¹⁴ EU action is primarily concerned with complementing national policies, encouraging cooperation

between the Member States and fostering cooperation internationally. The EU can adopt legislative measures in a number of fields and incentive measures designed to protect and improve human health. The article also clearly commits the Union to respect the responsibilities of the Member States for the definition of their health policy and for the organisation and delivery of health services and medical care.

Legislation

Basing on these provisions, the EU developed a legislative framework in a number of areas of public health, covering: blood, organs, and substances of human origin,¹⁵ tobacco products and advertising,¹⁶ patients' rights in cross-border healthcare,¹⁷ medicinal products, medical devices,¹⁸ clinical trials,^{19,20} quality standards known as "good manufacturing practice", the EU pharmacovigilance system²¹ and the EU preparedness capacity to coordinate the response to health threats.²² It can also adopt measures in the veterinary and phytosanitary fields to protect public health.

Cooperation

In complement to legislative activities, the EU stepped up cooperation between the Commission, Member States and stakeholders, notably in relation to health promotion and disease prevention through initiatives such as: Cancer Screening guidelines²³⁻²⁵; the European Partnership for Action Against Cancer²⁶; the High Level Group on Nutrition and Physical Activity²⁷; the EU platform for action on diet, physical activity and health²⁸; the European pact for mental health and well-being²⁹; the EU Alcohol and Health Forum³⁰ and the Committee on National Alcohol Policy and Action.³¹

It is also developing tools to support this cooperation, such as the action plan against the rising threats from antimicrobial resistance,³² and joint actions and projects, for instance on rare diseases³³ and networks (e.g., the European network for Health Technology Assessment,³⁴ the eHealth network,³⁵ etc.).

Financing

Finally, a number of financial instruments support these activities. The main instrument is the dedicated EU Health Programme.³⁶ The EU's Cohesion Policy and Structural Funds³⁷ are also powerful instruments that foster health directly (in particular through health infrastructure to which Member States allocated over EUR 5 billion between 2007 and 2013) or indirectly through urban regeneration, transport, environment, employment, social inclusion and housing.³⁸ The Seventh Framework Programme³⁹

and the EU programme for research and innovation for 2014 to 2020 (Horizon 2020)⁴⁰ also provide financial opportunities to address the societal challenge of an ageing population and harness innovation in public health and the management of health systems.

Health in Europe 2020

The fiscal and economic crisis raised the urgency to channel EU efforts towards economic recovery and growth as outlined in Europe 2020,⁴¹ the EU's blueprint for stimulating growth while promoting sustainability and social cohesion.

In order to reach Europe 2020 targets through coordinated and focused action, the Commission set up a cycle of economic policy coordination: the European Semester.⁴² In broad terms, the European Semester begins each November when the Commission sets out EU priorities for the coming year in the Annual Growth Survey (AGS).⁴³ Following this, the European Council issues EU guidance for national policies and Member States submit National Reform Programmes (NRP) that report on progress made towards smart, sustainable and inclusive growth. Based on these, the European Commission provides Country Specific Recommendations (CSR)⁴⁴—to be adopted by the European Council—for the following 12-18 months.

Given the importance of health expenditure in governments' budgets and the interdependence of European economies, this mechanism became increasingly concerned with the sustainability of health systems and reform in the health sector. The 2013 AGS⁴³ recognised the contribution of the healthcare sector to a job-rich recovery as well as its role in promoting social inclusion and tackling poverty. It recommended reforming health systems to ensure their cost-effectiveness and sustainability and assessing their performance against the twin aims of providing access to high-quality healthcare and using public resources more efficiently. In 2013, the Commission proposed 11 CSR on health.⁴⁴

Acknowledging these developments, on 20 February 2013 the Commission adopted a new policy framework more closely linking EU social and health policies to Europe 2020: the “Social Investment Package for Growth and Cohesion” including a paper on “Investing in Health”.⁴⁵

INVESTING IN HEALTH

Given the interplay between health and macroeconomic outcomes⁴⁶ the Staff Working Document on “Investing in Health” explains how EU action in the field of health helps reach Europe2020 objectives; a population in

good health is a prerequisite for smart, sustainable and inclusive growth. People's health status influences how much they can participate in social and working life and how productive they are at the workplace. On a larger scale this also impacts national healthcare systems. Therefore the paper argues for a combination of investments in sustainable health systems, in people's health and in reducing health inequalities. These three areas are essential to achieve positive health outcomes, which in turn influence economic outcomes in terms of productivity, labour supply, human capital and public spending. They have the potential to reinforce employability, helping individuals to secure adequate livelihoods, and for the vulnerable segments of the population break the vicious spiral of poor health contributing to, and resulting from, poverty and exclusion.

Investing in Sustainable Health Systems: Reform and Innovation

Health systems in Europe are at the core of its high level of social protection and they are a cornerstone of the European social market economy. The healthcare sector is indeed a major contributor to the economy, accounting for eight percent of the total European workforce and for ten percent of the EU's gross domestic product. However, in the last decades, the sustainability of health systems and their ability to cope with the structural changes in demography and the shift in disease patterns affecting populations in Europe, has increasingly come into question. Recently, the financial and economic crisis put an additional strain on public finances and made several structural challenges more visible. It reinforced the necessity to reform and modernise those systems. The EU can help Member States do so, in particular by fostering their cooperation to improve cost-efficiency through sound innovation and contributing to a better assessment of the performance of health systems.

Sustainability of Health Systems

The public sector plays a major role in the financing of healthcare: in the vast majority of Member States, more than 70 percent of health expenditure is funded by the public sector. In 2011, public spending on healthcare accounted for almost 15 percent of all government expenditure in the EU. The same year, after decades of increases outpacing GDP growth, public health expenditure slowed down markedly. Health spending grew by nearly five percent per year in real terms in OECD countries from 2000 to 2009, but this was followed by a sluggish growth of around 0.5 percent in 2010 and 2011, as several countries started implementing budgetary cuts. In fact, health spending per capita started declining sharply in 2009 for countries

that were hardest hit by the economic crisis.⁴⁷ This slowdown hides a wide variation between EU countries, with steady increases in countries such as Sweden and drastic contractions as seen in Greece. In spite of this slowdown, and owing to structural factors, public expenditure on healthcare and long-term care is expected to increase a further 29 percent by 2060.⁴⁸

Ensuring efficiency and making the provision of health services more cost-effective and efficient is crucial if countries are to ensure universal access to and equity in health services and their adequate and sustainable financing.⁴⁹ Financial sustainability may require budgetary cuts, including cuts in healthcare budgets and some Member States have already reduced their healthcare budgets.⁵⁰ A careful assessment of these measures and their effects on health outcomes should shed light on what policies are effective in the short and long terms and help avoid new inefficiencies, which ultimately jeopardise the sustainability of the health system. As regards the effects of such policies on health outcomes, it is not yet possible to make an analysis at the European level due to the time lag before policies take effect and delays in data availability.

Earlier evidence shows that the relationship between healthcare expenditure and health outcomes is not linear. It is not only how much money is spent, but also how it is spent, that determines a country's health status, even after taking into account the differences in lifestyle and socio-economic realities among countries.⁵¹ Present budget constraints should therefore be used as an opportunity to improve the value and effectiveness of healthcare spending (including through better implementation of policies as fraud and avoidable errors alone are estimated to represent an annual loss of 5.6 percent for healthcare budgets).⁵² The OECD has determined that reforms and improvements in the relative allocation of funding can result in savings on average of up to two percent of GDP by 2017 for OECD countries.⁵³

At the EU level, the Council has recognised the need to tackle these economic and budgetary difficulties by reforming health systems, while balancing the need to provide universal healthcare and take account of their implications in all relevant fields of EU economic policy coordination.^{54,55} The 11 Country Specific Recommendations⁵⁶ on health in 2013 emphasised cost-effectiveness, strengthening outpatient care and making systems less hospital-centric, reinforcing disease prevention activities, and guaranteeing access to healthcare for specific population groups.

Helping Member States Design Reforms and Improving the Efficiency of Health Systems

The Commission and the Economic Policy Committee have already identified a number of areas where structural reforms and efficiency gains could improve the sustainability of health systems:^{54,57}

- encouraging more **cost-effective provision and use of health services** (for instance through activity- and/or quality-based payment for diagnosis-related groups of cases or for hospital financing, etc.);
- ensuring a **balanced mix of staff skills** and anticipating staff needs due to ageing (Most countries have already recognised this challenge. However, the ratio of nurses to physicians still varies widely, from four or more nurses per physician in Denmark, Finland, Ireland, the Netherlands and Luxembourg to less than one in Italy or Greece.⁵⁸);
- **reducing the unnecessary use of specialist and hospital care** while improving primary healthcare services (It is generally accepted, especially in recent years, that strengthening primary healthcare can help improve the equity, efficiency, effectiveness, and responsiveness of health systems. Most studies analysing the transfer of some services from secondary to primary care showed that primary care was more cost-effective.);
- **better health promotion and disease prevention** in and outside the health sector (for instance through measures designed and implemented jointly with other sectors that have a major impact on health, such as education, housing, environment, and employment⁵⁹);
- **improving data collection** and using available information to underpin the improvement of the performance of health systems; in particular the collection of health data using the European Community Health Indicators (ECHI) and developing tools to better assess the efficiency of health systems;
- **using health technology assessment more systematically for decision-making processes**; and
- **ensuring the cost-effective use of medicines** (for instance through the use of less expensive equivalent (generic) medicinal products,⁶⁰ the assessment of medicinal products' effectiveness and cost-effectiveness as well as information for patients, healthcare staff and insurers);

These recommendations are consistent with the World Health Organization's "ten leading sources of inefficiency of health systems"⁶¹ and the OECD's recommendations for health system reform (such as, providing comparative performance indication, reforming provider payment mechanisms, improving the patient's choice and provider competition, giving guidelines on good practice and target, audit and inspection systems).^{62,63}

Together with Member States the Commission works towards identifying effective ways of investing in health in a reflection process that should draw conclusions by the end of 2013.⁶⁴

To support these processes, the Commission set up a multisectoral, independent expert panel to advise on effective ways of investing in health⁶⁵ and commissioned a number of studies on forecasting EU pharmaceutical expenditure,⁶⁶ external reference pricing of medicinal products, reimbursement systems of medicinal products, the economics of primary healthcare financing and the evaluation of public-private partnerships in healthcare delivery with results expected to become available in the course of 2014.⁶⁷

Improving Cost-Efficiency through Sound Innovation

New technologies are widely acknowledged as an important tool for boosting innovation and changing ways of delivering and organising the provision of health services and goods, helping to achieve greater cost-efficiency. However, they are also considered one of the primary drivers of healthcare spending. The introduction of innovative technological solutions should therefore be thoroughly assessed in terms of their potential to improve efficiency and productivity.⁴⁸

Health Technology Assessment (HTA) is the main tool developed to assess and support the cost-effective use of new technologies and innovation in healthcare. Health technology refers to a medicinal product, a medical device or medical and surgical procedures as well as measures for disease prevention, diagnosis or treatment used in healthcare. HTA is an essential tool for informing decision-makers and assessing the value of specific actions or technologies, thus reducing the risk of implementing measures that negatively affect patient outcomes. The Commission has been helping Member States exploit the full potential of HTA by fostering cooperation that will pool expertise and prevent the duplication of HTA work through the European network. This is mainly realised through the implementation of the Directive on patients' rights in cross-border healthcare¹⁷—in particular Article 15—and the European network for health technology assessment.³⁴

E-health covers the range of electronic and communication tools that can be used to assist and enhance prevention, diagnosis, treatment, monitoring and management concerning health and lifestyle. It is often perceived as increasing productivity and therefore supporting health systems reform. Examples of successful e-health developments include health information management, electronic health records, telemedicine services, wearable and portable monitoring systems and health portals. The Commission also contributes to e-health through a range of actions and instruments, such as

the Action Plan on e-Health,⁶⁸ the newly created EU e-Health Network,³⁵ research programmes and the development of a number of best practices.⁶⁹

Developing Tools to better Assess the Efficiency of Health Systems

Analysing the return on health investments requires a solid assessment of the efficiency and effectiveness of spending, which in turn needs to be based on a refined analytical framework, structured along three axes:

1. the definition of sound, reliable indicator(s) of health outcomes, building on the existing European Core Health Indicators (ECHI).⁷⁰ For example, the evidence of efficiency gains and improvements in health obtained through better use of healthcare budgets should be verified using different definitions of health outcomes⁷¹;
2. a better understanding of the effects of health systems on health outcomes, as distinct from the impacts on health of other factors such as health determinants and lifestyles; and
3. a better understanding of the mechanisms and timing of the effect of health policies on health outcomes, notably to avoid “false savings” in the short term that may lead to increased costs or other unintended consequences in the long term.⁵⁰

The Commission will continue supporting the work of Member States by improving the knowledge and evidence on health expenditure and health outcomes in the achievement of structural reforms, notably by:

- working towards a sustainable health monitoring system in Europe, using ECHI indicators and information on the breakdown of expenditure per disease in the EU⁷⁰;
- developing a sound methodology for Health System Performance Assessment; and
- assessing the cost-effectiveness of health systems through Life Table Analysis.

Health as an Investment in Human Capital

Generally, cost-effective and efficient health spending is a productive or growth-friendly type of expenditure (however this paper will not address the multiplier effect of health expenditure, which is discussed elsewhere).^{72,73}

It helps increase the economy’s production assets (labour, capital and knowledge) and enables people to remain active and in better health for longer.⁴⁹ Investing in health helps limiting future costs related to the treatment of preventable diseases and finally, investing in health also means investing in an efficient health workforce.^{74,75}

Contributing to Employability and Enabling People to Remain Active for Longer

Life expectancy is rising steadily in Europe, but people are also expected to live on average almost 20 years with an activity limitation. The levels of healthy life expectancy in the EU are at 62.2 HLY for women and 61 HLY for men.⁵⁸ This has significant human and economic implications, notably on health systems and social care structures in terms of demand for care.⁷⁶

The health status of individuals strongly influences their labour market participation. Evidence suggests that ill-health leads to absenteeism (estimated at three to six percent of working time—a yearly cost of about 2.5 percent of GDP⁷⁷), job loss (10 percent of the people who were previously employed left their job mainly for health reasons) and premature labour market exit⁷⁸ or mortality. Amongst people currently employed, 23.5 percent suffer from a chronic condition with restricted daily activities (the average percentage of productivity loss at work among workers with cardiovascular diseases is estimated at seven percent, compared with 15 percent on average for workers with depression and 34 percent among workers with upper extremity disorders).⁷⁹ Acknowledging that depression, musculoskeletal diseases and unhealthy lifestyle factors (e.g., obesity and physical inactivity), are associated with reduced on-the-job productivity highlights the essential role of quality health care to support a productive workforce.^{74,80}

It is possible to boost economic growth by improving the health status of the population enabling people to remain active and in better health for longer. Some studies estimate that for every year of increase in a population's life expectancy GDP could go up as much as four percent⁸¹ and the WHO 2010 Global Report on Non-Communicable Diseases recognises that each ten percent rise in non-communicable diseases is associated with 0.5 percent lower rates of annual economic growth.⁸² There is scope for creating a cycle in which improvements in health and prosperity are mutually reinforcing.⁸³ However, the potential benefits from health investments through increased population employability should be better understood and the Commission will support research in that area and facilitate the identification and exchange of good practice. There are already tools to assess the effect of alternative policy outcomes on long-term social expenditure such as the social expenditure projection model (SOME) where explicit consideration is given to the impact of population health and beneficial employment effects.⁸⁴

Patient empowerment is often considered an important and promising aspect of chronic disease management that enables people to remain active and in better health longer. Some evidence suggests that self-management⁶⁹ can be effective, improve patients' health status, reduce their drug treatment

costs and the time they spend in hospital.⁸⁵ However, it should not be a substitute for professional acute care. At present more research is needed to assess the efficiency and efficacy of exiting models. The Commission will contribute to the practical understanding of patient empowerment and support exchanges of experience in this field by launching a mapping of current policies and evidence.

The European Innovation Partnership (EIP) on Active and Healthy Ageing will help citizens to lead healthier, more active and independent lives while ageing. It aims to increase the number of HLY of Europeans by two years by 2020.⁸⁶ It applies an innovative approach to policy-making in the EU by bringing together key stakeholders (end users, public authorities, and industry) and providing a forum for cooperation, the identification of potential innovation barriers and the mobilisation of funding instruments. It aims to improve the framework conditions for the uptake of innovation, leveraging financing and investments in innovation and improving coordination and coherence between funding for research and innovation at European, national and regional levels in the EU.

Promoting Good Health

A large amount of health spending, including in particular disease prevention and health promotion, is rightly regarded as an investment.⁸⁷ The human and economic burdens of chronic diseases can be contained by devoting resources directly or indirectly to prevention, screening, treatment and care, which reduce high long-term treatment costs and improve health outcomes by avoiding tens of thousands of premature deaths and chronic diseases.⁸⁸

A recent study⁸⁹ showed that evidence-based workplace interventions to promote mental health could help save up to EUR 135 billion a year by reducing absenteeism and early retirement.^{90,91}

However, only about three percent of current health expenditure is allocated to public health and prevention programmes. Given the potential to contain the burden and cost of disease in the long term, the importance given to disease prevention and health promotion, particularly through the health-in-all-policies approach,⁵⁷ should be reassessed.

There is a wide array of health promotion and disease prevention measures authorities could make use of in many different settings, ranging from public information campaigns in the media, excise taxes on certain products such as tobacco or alcohol, bans and stricter regulation on labelling, advertising and selling, to health education on school curricula and financial incentives for consumers, patients and providers. The WHO also identified a number of “best buys” in chronic disease prevention:

incentive fiscal measures, food product reformulation, detection and treatment of those at high risk of a heart attack, including early detection and treatment of high blood pressure.⁸² While at the EU level, a reflection process aimed to identify innovative approaches to address chronic diseases is expected to yield conclusions by the end of 2013.⁹² It will be supported by a joint action on chronic diseases that will address preventing and delaying the onset of chronic diseases throughout the life cycle and aspects of the secondary prevention, screening, early diagnosis, and treatment of diabetes type 2, and develop innovative, cost-efficient and patient-centred approaches for the management of patients with multiple chronic conditions.⁹³

Employment in the Health Sector

Investing in health also means investing in the health workforce. The health and social work sector has in recent years been the single largest contributor to employment, accounting today for about ten percent of employment. The sector also generates high-skilled jobs and the 2013 AGS highlighted its potential. Almost 40 percent of workers in the health and social work sector have tertiary qualifications. This is much higher than the Commission services estimate of 26 percent average across all sectors. While the EU lost more than 2.5 million jobs between 2008 and 2011, the health and social work sector generated over 2.8 million new jobs during the same period. Population ageing is likely to increase that trend. Assuming a constant share of labour in this area, this would mean a regular increase of up to eight million job vacancies by 2020 (according to CEDEFOP skills forecast, employment is expected to increase by one million between 2010 and 2020 while increasing healthcare needs and the ageing of healthcare professionals should result in seven million vacancies due to replacement needs).⁹⁴

Nevertheless, as part of the process of modernising public administration, the possible increase in employment in the health and social work sector must be carefully balanced against the potential increase in public expenditure. Future needs related to an ageing population must also be met by exploiting efficiency gains and better productivity.

The Action Plan for the EU health workforce, which is part of the 2012 Employment Package⁹⁵ supports cooperation to help improve workforce planning and forecasting and the recruitment and retention of health professionals. An EU joint action,^{67,96} to be financed by the EU Health Programme, on forecasting health workforce needs for effective planning in the EU will create a partnership of Member States and professional organisations to share good practice and develop methodologies.

Reducing Inequalities in Health

Health outcomes vary considerably within and between Member States. In 2010, the gap in life expectancy at birth between the highest and lowest values for EU-27 Member States was 11.6 years for males and 7.9 years for females. People with a lower income and less education live in worse health and die younger. For example, differences in life expectancy at age 30 between those with higher education and those with basic secondary education or less exceed ten years in many Member States.⁹⁷

Across the EU the level of disability, in terms of reported restrictions on daily living activities, is more than twice as high in the lowest income quintile as in the highest income quintile.⁹⁸ Even larger health inequalities exist for some disadvantaged groups such as some ethnic minorities (e.g., Roma) and some migrant groups. These health inequalities represent not only a waste of human potential, but also a huge potential economic loss—conservatively estimated at between 1.5 percent and 9.5 percent of GDP according to a report written for the Commission.⁹⁹

Reasons for these differences include barriers in access to healthcare, which are often worse for disadvantaged persons¹⁰⁰ and in less wealthy Member States, as well as poorer diets, housing, living and working conditions, and higher levels of health-damaging behaviours. For example, research projects show that citizens are often confronted with informal patient payments for healthcare services.¹⁰¹ Vulnerable groups or households with a chronically ill member are less protected against informal payments and are most likely to forego treatment or to experience catastrophic, impoverishing effects due to formal and informal out-of-pocket payments. The impact of the current economic crisis on these factors threatens to further increase health inequalities between social groups and between Member States.

As stated in the 2013 AGS, “additional efforts are needed to ensure the effectiveness of social protection systems in countering the effects of the crisis, to promote social inclusion and to prevent poverty”, including by providing broad access to affordable, high-quality health services.⁴⁷ A multi-sectoral approach is required, with a focus on achieving greater gains in less advantaged groups in order to close gaps.¹⁰² Key measures are to prioritise less advantaged persons in policies to improve the quality of and access to health systems, to address the underlying risk factors in health behaviours and to ensure adequate incomes and living and working conditions.¹⁰³ Such measures are underpinned by the fundamental values and commitments the EU and its Member States have agreed on with regard to human rights, equal opportunities, social and economic cohesion and solidarity.

Healthcare coverage can help reduce poverty. Data on the effects of social transfers suggests that healthcare plays a significant role in reducing

the at-risk-of-poverty rate. Access to affordable healthcare is therefore necessary for adequate livelihoods. Fiscal consolidation measures applied to health systems should therefore not compromise the access of poor, disadvantaged populations to high-quality healthcare.

According to a study of policy responses to the economic crisis,⁵⁰ several countries have increased user charges for essential services, while in some cases also allowing more income-based exemptions. This is however unlikely to lead to substantial savings in budgets as health spending is concentrated on a section of the population that does not necessarily overlap with the poorest section (lowest income quintile), and protects against catastrophic health expenditure (the inability of individuals to pay for healthcare services—in itself not necessarily synonymous with high healthcare costs). This suggests that income-based exemptions should be coupled with co-payment ceilings. Given that vulnerable populations are already disproportionately affected by the economic crisis and that ill health has negative outcomes on employability, possible effects on those populations should be carefully assessed. Measures to increase co-payments risk aggravating the economic hardship borne by vulnerable populations by reducing access to healthcare and it is worth noting that HOPE, the European Hospital and Healthcare Federation reports a marked increase in emergency services activities and longer waiting time and waiting lists since the start of the current economic crisis.¹⁰⁴

Increasing knowledge of the effects of healthcare coverage on poverty, as measured at the household level, should take the following into account:

- evidence suggesting that a large amount of total spending on healthcare during a person's life is concentrated in the final year(s) of life.¹⁰⁵ Health expenditure comparisons between individuals would therefore ideally be based on lifetime analyses and not be limited to a given year; and
- the inherent complexity of interactions among several causal factors and variables, such as the likelihood of similarity in the socio-economic backgrounds of spouses and feedback loops in causal pathways between health and poverty.

The Commission will continue to support measures to address health inequalities within and between Member States by implementing the 2009 Communication “Solidarity in Health: Reducing Health Inequalities in the EU”.^{106,107} It plans to increase knowledge and evidence to facilitate the exchange of best practices and share understanding of the effects of health investments on social exclusion and poverty reduction including tackling the methodological difficulty of valuing benefits in kind. The Communication is implemented in particular through a Joint Action¹⁰⁸ supported by the Health Programme.

CONCLUSION

Investing in health helps the EU rise to the challenges identified in its Health Strategy that have been compounded by the economic crisis: an ageing population, an increase in chronic diseases, a greater demand for healthcare and the high cost of technological progress. Getting more value for money through reforms and investments is crucial. Investing in health can lead to smarter spending—not more spending—that brings savings and secures better health outcomes. It may take different forms, such as change in the management of care to improve efficiency while improving health outcomes, investment in healthcare staff, training or equipment and initiatives to promote good health and prevent diseases. The avoidable morbidity and mortality underlying health inequalities represent a waste of human capital that must be reduced.

Universal access to safe, high-quality, efficient healthcare services, better cooperation between social and healthcare sectors and effective public health policies to prevent chronic disease can make an important contribution to economic productivity and social inclusion. Reforms complemented by the above mentioned targeted investments should foster cost-effective innovation to achieve good health outcomes and aim to avoid increasing disease and financial burdens in the long term. Financial consolidation and structural reform of health systems must go hand in hand to continue delivering on public policy goals and ensure that efficiency gains will guarantee universal access and increase the quality of healthcare. They should be addressed as part of the wider agenda of structural reforms within the context of Europe 2020 and the European Semester.

Acronyms List:

AGS = Annual Growth Survey

CSR = Country Specific Recommendations

ECHI = European Community Health Indicators

HTA = Health Technology Assessment

Conflicts of Interest: The authors are officials from the European Commission - DG SANCO.

REFERENCES

1. Decision of the Council and of Representatives of the Government of the Member States Council, Meeting within the Council of 21 June 1988. Adopting a 1988 to 1989 plan of action for an information and public awareness campaign in the context of “Europe against cancer” programme. Decision 88/351/EEC. Official J European Communities. 1988;L160:52-3. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1988:160:0052:0053:EN:PDF> (Accessed 16 October 2013).
2. Decision of the Council and the Ministers for Health of the Member States, meeting within the Council of 4 June 1991. Adopting a plan of action in the framework of the 1991 to 1993 ‘Europe against AIDS’ programme. Decision 91/317/EEC. Official J European Communities. 1991;L175:26-9. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1991:175:0026:0029:EN:PDF> (Accessed 16 October 2013).
3. Decision No 647/96/EC of the European Parliament and of the Council of 29 March 1996. Adopting a programme of Community action on the prevention of AIDS and certain other communicable diseases within the framework for action in the field of public health (1996 to 2000). Decision 647/96/EC. Official J European Communities. 1996;L95:16-22. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1996:095:0016:0022:EN:PDF> (Accessed 16 October 2013).
4. Decision No 646/96/EC of the European Parliament and of the Council of 29 March 1996. Adopting an action plan to combat cancer within the framework for action in the field of public health (1996 to 2000). Decision 646/96/EC. Official J European Communities. 1996;L95:9-15. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1996:095:0009:0015:EN:PDF> (Accessed 16 October 2013).
5. Decision No 102/97/EC of the European Parliament and of the Council of 16 December 1996. Adopting a programme of Community action on the prevention of drug dependence within the framework for action in the field of public health (1996-2000). Decision 102/97/EC. Official J European Communities. 1997;L19:25-31. Available from URL: http://new.eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.1997.019.01.0025.01.ENG (Accessed 16 October 2013).
6. Decision No 645/96/EC of the European Parliament and of the Council of 29 March 1996. Adopting a programme of Community action on health promotion, information, education and training within the framework for action in the field of public health (1996 to 2000). Decision 645/96/EC. Official J European Communities. 1996;L95:1-8. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1996:095:0001:0008:EN:PDF> (Accessed 16 October 2013).
7. Decision No 1400/97/EC of the European Parliament and of the Council of 30 June 1997. Adopting a programme of Community action on health monitoring within the framework for action in the field of public health (1997 to 2001).

- Decision 1400/97/EC. Official J European Communities. 1997;L193:1-10. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1997:193:0001:0010:EN:PDF> (Accessed 16 October 2013).
8. Decision No 372/1999/EC of the European Parliament and of the Council of 8 February 1999. Adopting a programme of Community action on injury prevention in the framework for action in the field of public health (1999 to 2003). Decision 372/1999/EC. Official J European Communities. 1999;L46:1-5. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1999:046:0001:0005:EN:PDF> (Accessed 16 October 2013).
 9. Decision No 1295/1999/EC of the European Parliament and of the Council of 29 April 1999. Adopting a programme of Community action on rare diseases within the framework for action in the field of public health (1999 to 2003). Decision 1295/1999/EC. Official J European Communities. 1999;L155:1-6. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999D1295:EN:HTML> (Accessed 16 October 2013).
 10. Decision No 1296/1999/EC of the European Parliament and of the Council of 29 April 1999. Adopting a programme of Community action on pollution-related diseases in the context of the framework for action in the field of public health (1999 to 2001). Decision 1296/1999/EC. Official J European Communities. 1999;L155:7-12. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999D1296:EN:HTML> (Accessed 16 October 2013).
 11. European Commission White Paper of 23 October 2007. Together for Health: A Strategic Approach for the EU 2008-2013. COM(2007) 630. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0630:EN:NOT> (Accessed 16 October 2013).
 12. Treaty on European Union. (Consolidated version 2012). Official J European Union. 2012;C326:13-46. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:326:0013:0046:EN:PDF> (Accessed 16 October 2013).
 13. Treaty on European Union. (Consolidated version 2012). Article 5. Official J European Union. 2012;C326:13-46. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:326:0013:0046:EN:PDF> (Accessed 16 October 2013).
 14. Treaty on the Functioning of the European Union (Consolidated version 2012). Article 168. Official J European Union. 2012;C326:122-4. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:326:0047:0200:EN:PDF> (Accessed 16 October 2013).
 15. European Commission Public Health. Blood, tissues and organs. Available from URL: http://ec.europa.eu/health/blood_tissues_organ/key_documents/index_en.htm (Accessed 17 October 2013).
 16. European Commission Public Health. Tobacco products. Available from URL: http://ec.europa.eu/health/tobacco/products/index_en.htm (Accessed 17 October 2013).

17. Directive 2011/24/EU of the European Parliament and of the Council of 9 arch 2011 on the application of patients' rights in cross-border healthcare. Official J European Union. 2011;L88:45-65. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0045:0065:EN:PDF> (Accessed 17 October 2013).
18. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Safe, effective and innovative medical devices and in vitro diagnostic medical devices for the benefit of patients, consumers and healthcare professionals. COM(2012) 540 final. Brussels; EC; 26 September 2012. Available from URL: http://ec.europa.eu/health/medical-devices/files/revision_docs/com_2012_540_revision_en.pdf (Accessed 17 October 2013).
19. European Commission Public Health. Clinical products for human use. Clinical trials. Available from URL: http://ec.europa.eu/health/human-use/clinical-trials/index_en.htm (Accessed 17 October 2013).
20. European Commission. Proposal for a Regulation of the European Parliament and of the Council on Clinical Trials on Medicinal Products for Human Use, and repealing Directive 2001/20/EC. COM(2012) 369 final. Brussels; EC; 27 July 2012. Available from URL: http://ec.europa.eu/health/files/clinicaltrials/2012_07/proposal/2012_07_proposal_en.pdf (Accessed 17 October 2013).
21. European Commission Public Health. Clinical products for human use. The EU pharmacovigilance system. Available from URL: http://ec.europa.eu/health/human-use/pharmacovigilance/index_en.htm (Accessed 17 October 2013).
22. European Commission Public Health. Preparedness and response. Proposal for a decision of the European Parliament and of the Council on serious cross-border threats to health. Available from URL: http://ec.europa.eu/health/preparedness_response/policy/hsi/index_en.htm (Accessed 17 October 2013).
23. Perry N, Broeders M, de Wolf C, Törnberg S, Holland R (editors). European guidelines for quality assurance in breast cancer screening and diagnosis. Fourth edition. Health & Consumer Protection Directorate-General; 14 March 2006. Available from URL: <http://www.euref.org/downloads?download=24:european-guidelines-for-quality-assurance-in-breast-cancer-screening-and-diagnosis-pdf> (Accessed 17 October 2013).
24. von Karsa L, Senan N, Patnick J (editors). European guidelines for quality assurance in colorectal cancer screening and diagnosis. First edition. European Commission; 2010. Available from URL: <http://bookshop.europa.eu/en/european-guidelines-for-quality-assurance-in-colorectal-cancer-screening-and-diagnosis-pbND3210390/> (Accessed 17 October 2013).
25. Arbyn M, Anttila A, Jordan J, Ronco G, Schenck U, et al. (editors). European Guidelines for quality assurance in cervical cancer screening. Second edition. European Commission; 2008. Available from URL: http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=ND7007117# (Accessed 17 October 2013).

26. European Partnership for Action Against Cancer. Homepage. Available from URL: <http://www.epaac.eu/> (Accessed 17 October 2013).
27. European Commission Public Health. Nutrition and physical activity. High Level Group on Nutrition and Physical activity. Available from URL: http://ec.europa.eu/health/nutrition_physical_activity/high_level_group/index_en.htm (Accessed 17 October 2013).
28. European Commission Public Health. Nutrition and physical activity. EU platform for action on diet, physical activity and health. Available from URL: http://ec.europa.eu/health/nutrition_physical_activity/platform/index_en.htm (Accessed 17 October 2013).
29. European Union High Level Conference Together for Mental Health and Wellbeing. European pact for mental health and well-being. Brussels; World Health Organization Europe; 13 June 2008. Available from URL: http://ec.europa.eu/health/mental_health/docs/mhpact_en.pdf (Accessed 17 October 2013).
30. European Commission Public Health. Alcohol. EU Alcohol and Health Forum Available from URL: <http://ec.europa.eu/health/alcohol/forum/> (Accessed 17 October 2013).
31. European Commission Public Health. Alcohol. Committee on National Alcohol Policy and Action. Available from URL: http://ec.europa.eu/health/alcohol/events/ev_20130522_en.htm (Accessed 17 October 2013).
32. European Commission Public Health. Antimicrobial resistance. Policy. Available from URL: http://ec.europa.eu/health/antimicrobial_resistance/policy/index_en.htm (Accessed 17 October 2013).
33. European Commission Public Health. Rare diseases. Projects supported by the EU. Available from URL: http://ec.europa.eu/health/rare_diseases/projects/index_en.htm (Accessed 17 October 2013).
34. European Commission Public Health. Health technology assessment. Policy. Available from URL: http://ec.europa.eu/health/technology_assessment/policy/index_en.htm (Accessed 17 October 2013).
35. European Commission Public Health. eHealth Network. Available from URL: http://ec.europa.eu/health/ehealth/events/index_en.htm#anchor0 (Accessed 17 October 2013).
36. European Commission Public Health. EU Health Programme. Policy. Available from URL: http://ec.europa.eu/health/programme/policy/index_en.htm (Accessed 17 October 2013).
37. European Commission Public Health. Health and structural funds. The EU cohesion policy and health. Available from URL: http://ec.europa.eu/health/health_structural_funds/policy/index_en.htm (Accessed 17 October 2013).
38. European Commission. Guide to health gains from structural funds. Available from URL: <http://www.healthgain.eu/> (Accessed 17 October 2013).
39. Europa Summaries of EU Legislation. Seventh Framework Programme (2007 to 2013). Available from URL: http://europa.eu/legislation_summaries/energy/european_energy_policy/i23022_en.htm (Accessed 17 October 2013).

40. European Commission. Proposal for a Regulation of the European Parliament and Council establishing Horizon 2020. The Framework Programme for Research and Innovation (2014-2020). COM(2011) 809 final. Brussels: EC; 30 November 2011. Available from URL: [http://ec.europa.eu/research/horizon2020/pdf/proposals/proposal_for_a_regulation_of_the_european_parliament_and_of_the_council_establishing_horizon_2020_-_the_framework_programme_for_research_and_innovation_\(2014-2020\).pdf](http://ec.europa.eu/research/horizon2020/pdf/proposals/proposal_for_a_regulation_of_the_european_parliament_and_of_the_council_establishing_horizon_2020_-_the_framework_programme_for_research_and_innovation_(2014-2020).pdf) (Accessed 17 October 2013).
41. European Commission. Communication from the Commission. Europe 2020. A strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final. Brussels; 3 March 2010. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF> (Accessed 17 October 2013).
42. European Commission. Europe 2020. Making it happen: the European Semester. Available from URL: <http://ec.europa.eu/europe2020/making-it-happen/> (Accessed 17 October 2013).
43. European Commission. Communication from the Commission. Annual Growth Survey 2013. CO(2012) 750 final. Brussels; 28 November 2012. Available from URL: http://ec.europa.eu/europe2020/pdf/ags2013_en.pdf (Accessed 17 October 2013).
44. European Commission. Europe 2020. Country-specific Recommendations 2013. Available from URL: http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index_en.htm (Accessed 17 October 2013).
45. European Commission. Commission Staff Working Document. Investing in Health. SWD(2013)43 final. Brussels; 20 February 2013. Accompanying the Communication: Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020. COM(2013)83 final, Brussels; 20 February 2013. Available from URL: http://ec.europa.eu/health/strategy/docs/swd_investing_in_health.pdf (Accessed 17 October 2013).
46. Sachs J. Macroeconomics and health: investing in health for economic development. Report of the Commission on Macroeconomics and Health. Geneva: World Health Organization; 20 December 2001. Available from URL: <http://whqlibdoc.who.int/publications/2001/924154550x.pdf> (Accessed 17 October 2013).
47. OECD. OECD Health Data 2012. Health: Growth in health spending grinds to a halt. OECD; 28 June 2012. Available from URL: <http://www.oecd.org/newsroom/healthgrowthinhealthspendinggrindstoahalt.htm> (Accessed 17 October 2013).
48. European Commission and the Economic Policy Committee. The 2012 Ageing Report: Economic and budgetary projections for the 27 EU Member States (2010-2060). European Union; February 2012. Available from URL: http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-2_en.pdf. (Accessed 17 October 2013).

49. European Commission Directorate-General for Economic and Financial Affairs. The Quality of Public Expenditures in the EU. European Economy. Occasional Papers 125. European Union; December 2012. Available from URL: http://ec.europa.eu/economy_finance/publications/occasional_paper/2012/pdf/ocp125_en.pdf. (Accessed 17 October 2013).
50. Mladovsky P, Srivastava D, Cylus J, Karanikolos M, Evetovits T, et al. Health policy responses to the financial crisis in Europe, Policy Summary 5. World Health Organization; 2012. Available from URL: http://www.euro.who.int/_data/assets/pdf_file/0009/170865/e96643.pdf. (Accessed 17 October 2013).
51. Joumard I, André C, Nicq C. Health care systems: efficiency and policy settings, ECO/WKP(2010)25. OECD; 19 May 2010. Available from URL: [http://search.oecd.org/officialdocuments/displaydocumentpdf/?cote=eco/wkp\(2010\)25&doclanguage=en](http://search.oecd.org/officialdocuments/displaydocumentpdf/?cote=eco/wkp(2010)25&doclanguage=en) (Accessed 17 October 2013).
52. Gee J, Button M, Brooks G. The financial cost of healthcare fraud. London: MacIntyre Hudson/CCFS; 2010. Available from URL: <http://www.port.ac.uk/media/contacts-and-departments/icjs/ccfs/The-financial-cost-of-healthcare-fraud.pdf> (Accessed 10 December 2013).
53. Joumard I. Public Health Care Reforms: Challenges and Lessons for Advanced and Emerging Europe. Presentation. OECD, Economics Department. IMF conference. 21 June 2011. Available from URL: <http://www.imf.org/external/np/seminars/eng/2011/paris/pdf/Joumard.pdf> (Accessed 17 October 2013).
54. Council of the European Union. Council Conclusions on the EPC-Commission Joint Report on health systems in the EU. 3054th Economic and Financial Affairs Council meeting. Brussels; 7 December 2010. Available from URL: http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ecofin/118273.pdf (Accessed 17 October 2013).
55. Council of the European Union. Council Conclusions on the sustainability of public finances in the light of ageing populations. 3167th Economic and Financial Affairs Council meeting. Brussels; 15 May 2012. Available from URL: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/130261.pdf (Accessed 17 October 2013).
56. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. 2013 European Semester: country-specific recommendations. Moving Europe beyond the Crisis. COM(2013) 350 final. Brussels 29 May 2013. Available from URL: http://ec.europa.eu/europe2020/pdf/nd/2013ecomm_en.pdf (Accessed 17 October 2013).
57. European Commission and the Economic Policy Committee. Joint Report on health systems. European Economy, Occasional Papers 74. European Union; December 2010. Available from URL: http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/pdf/ocp74_en.pdf (Accessed 17 October 2013).
58. OECD. Health at a glance: Europe 2012. OECD Publishing; 2012. Available from URL: http://ec.europa.eu/health/reports/docs/health_glance_2012_en.pdf (Accessed 17 October 2013).

59. Stuckler D, Basu S, McKee M. Budget crisis, health and social welfare programmes. *BMJ*. 2010;340:c3311.
60. Toumi M, Rémuizat C, Creativ-Ceutical. Executive Agency for Health and Consumers-EAHC-European Commission. EU Pharmaceutical expenditure forecast. Final report. Luxembourg: European Commission; 26 November 2012. Available from URL: http://ec.europa.eu/health/healthcare/docs/creativ_ceutical_eu_pharmaceutical_expenditure_forecast.pdf (Accessed 10 December 2013).
61. World Health Organization. The World Health Report — Health systems financing: the path to universal coverage. WHO; 2010. Available from URL: http://www.who.int/whr/2010/whr10_en.pdf (Accessed 17 October 2013).
62. Achieving better value for money in healthcare (2009) and health ministerial meeting. 7-8 October 2010.
63. Smith C. What is the scope for health system efficiency gains to be achieved? *Eurohealth incorporating Euro Observer*. 2012;18(3).
64. Council Conclusions. Towards modern, responsive and sustainable health systems, 3095 Employment, Social Policy, Health and Consumer Affairs Council meeting, Luxembourg; 6 June 2011.
65. European Commission. Commission Decision of 5 July 2012 on setting up a multisectoral and independent expert panel to provide advice on effective ways of investing in health. Decision 2012/C 198/06. Official J European Union. 2012;C198:7-11. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?percent3Furipercent3DOJ:C:2012:198:0007:0011:EN:PDF> (Accessed 17 October 2013).
66. Creativ-Ceutical. EU Pharmaceutical expenditure forecast, final report. Executive Agency for Health and Consumers-EAHC_European Commission; 26 November 2012. Available from URL: http://ec.europa.eu/health/healthcare/docs/creativ_ceutical_eu_pharmaceutical_expenditure_forecast.pdf (Accessed 17 October 2013).
67. European Commission. Commission Implementing Decision of 28 November 2012. Concerning the adoption of the 2013 work plan in the framework of the second programme of Community action in the field of health (2008-2013). Decision 2012/C 378/07. Official J European Union. 2012;C378:6-40. Available from URL: http://ec.europa.eu/health/programme/docs/wp2013_en.pdf (Accessed 17 October 2013).
68. European Commission. Digital agenda for Europe. A Europe 2020 initiative. Available from URL: <http://ec.europa.eu/digital-agenda/> (Accessed 18 October 2013).
69. Lluch M. Strategic Intelligence Monitor on Personal Health Systems Phase 2 (SIMPHS 2). Evidence consolidation: report on best practices and key drivers of success. Joint Research Centre, Institute for Prospective Technological Studies; April 2013. Available from URL: <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=6139> (Accessed 18 October 2013).

70. European Commission Public Health. European Core Health Indicators (ECHI). Available from URL: <http://ec.europa.eu/health/indicators/echi/> (Accessed 18 October 2013).
71. Joumard I, André C, Nicq C, Chatal O. Health status determinants: lifestyle, environment, health care resources and efficiency. ECO/WKP(2008)35. OECD Economics Department Working Papers No 627. OECD Publishing; 4 August 2008. Available from URL: http://www.oecd-ilibrary.org/economics/health-status-determinants_240858500130 (Accessed 18 October 2013).
72. European Commission, Directorate-General for Economic and Financial Affairs. Report on Public finances in EMU, European Economy 2013. European Union; April 2013. Available from URL: http://ec.europa.eu/economy_finance/publications/european_economy/2013/pdf/ee-2013-4.pdf (Accessed 18 October 2013).
73. Blanchard O, Leigh D. Growth forecast errors and fiscal multipliers. International Monetary Fund Working Paper No 13/1. IMF; January 2013. Available from URL: <http://www.imf.org/external/pubs/ft/wp/2013/wp1301.pdf> (Accessed 18 October 2013).
74. European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Towards a job-rich recovery. COM(2012) 173 final. Strasbourg; 18 April 2012. Available from URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?percent3Furipercent3DCOM:2012:0173:FIN:EN:PDF> (Accessed 18 October 2013).
75. European Commission. Commission Staff Working Document. On an Action Plan for the EU Health Workforce. SWD(2012) 93 final. Strasbourg; 18 April 2012. Available from URL: http://ec.europa.eu/dgs/health_consumer/docs/swd_ap_eu_healthcare_workforce_en.pdf (Accessed 18 October 2013).
76. European Commission. Commission Staff Working Document. Long-term care in ageing societies – challenges and policy options. SWD(2013) 41 final. Brussels; 20 February 2013. Available from URL: <http://ec.europa.eu/social/BlobServlet?docId=9769&langId=en> (Accessed 18 October 2013).
77. European Foundation for the Improvement of Living and Working Conditions. Absence from work. Dublin: Eurofound; 2010. Available from URL: http://www.eurofound.europa.eu/ewco/studies/tn0911039s/tn0911039s_5.htm (Accessed 18 October 2013).
78. Health and Retirement Study Project. Health. Available from URL: http://hrsonline.isr.umich.edu/sitedocs/databook/HRS_Text_WEB_Ch1.pdf. (Accessed 18 October 2013).
79. Oortwijn W, Nelissen E, Adamini S, van den Heuvel S, Geuskens G, Burdorf L. Health of people of working age. Full Report. Luxembourg: European Commission Directorate General for Health and Consumers; 2011. Available from URL: http://ec.europa.eu/health/social_determinants/docs/final_full_ecoryst_web.pdf. (Accessed 18 October 2013).

80. European Commission. Commission Staff Working Document. Open, dynamic and inclusive labour markets. SWD(2012) 97 final. Strasbourg; 18 April 2012. Available from URL: <http://ec.europa.eu/social/BlobServlet?docId=7627&langId=en> (Accessed 18 October 2013).
81. Bloom DE, Canning D, Sevilla J. The effect of health on economic growth: a production function approach. *World Development*. 2004;32:1-13.
82. World Health Organization. Global status report on noncommunicable diseases 2010. WHO; 2011. Available from URL: http://whqlibdoc.who.int/publications/2011/9789240686458_eng.pdf (Accessed 18 October 2013).
83. McKee M, Suhrcke M. Investing in health: a contribution to the achievement of the Lisbon Agenda, *Eur Rev*. 2010;18:9-21. Available from URL:<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=6906144>. (Accessed 18 October 2013).
84. Ministry of Social Affairs and Health. Finland social expenditure scenarios — effects of health promotion and a presentation of the analysis model. Reports of the Ministry of Social Affairs and Health. 2009:7.
85. Rijken M, Jones M, Heijmans M, Dixon A. Supporting self-management. In: Nolte E, McKee M (editors). *Caring for People with Chronic Conditions: A Health System Perspective*. Maidenhead: Open University Press; 2008.
86. European Commission. Communication from the Commission to the European Parliament and the Council. Taking forward the Strategic Implementation Plan of the European Innovation Partnership on Active and Healthy Ageing. COM(2012) 83 final. Brussels: 29 February 2012. Available from URL: http://ec.europa.eu/health/ageing/docs/com_2012_83_en.pdf (Accessed 18 October 2013).
87. Bloom DE, Cafiero ET, Jané-Llopis E, Abrahams-Gessel S, Bloom LR, et al. The global economic burden of non-communicable diseases. Geneva: World Economic Forum; September 2011. Available from URL: http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf (Accessed 28 January 2014).
88. Sassi F. Obesity and the Economics of Prevention: Fit not Fat. OECD Publishing; 2010. Available from URL: <http://www.oecd.org/health/health-systems/obesityandtheeconomicsofpreventionfitnotfat.htm> (Accessed 28 January 2014).
89. Matrix Insight. Economic analysis of workplace mental health promotion and mental disorder prevention programmes and of their potential contributions to EU health, social and economic policy objectives. Final report. European Union; May 2013. Available from URL: http://ec.europa.eu/health/mental_health/docs/matrix_economic_analysis_mh_promotion_en.pdf (Accessed 18 October 2013).
90. OECD. *Sick on the Job? Myths and Realities about Mental Health and Work*. OECD Publishing; 17 January 2012.
91. Knapp M, McDaid D, Parsonage M, (editors). *Mental health promotion and mental disorder prevention: the economic case*. London: Department of Health, London; January 2011.

92. Council of the European Union. Council conclusions. Innovative approaches for chronic diseases in public health and healthcare systems. 3053rd Employment, Social Policy Health and Consumer Affairs Council meeting. Brussels: 7 December 2010. Available from URL: http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/lsa/118282.pdf (Accessed 18 October 2013).
93. European Commission. Executive Agency for Health and Consumers. Health Programme. Call 2013: Joint actions. Key documents from the preparations for the "Joint Action addressing chronic diseases and promoting healthy ageing across the life cycle". Available from URL: http://ec.europa.eu/eahc/health/JA_2013_chronic_diseases.html (Accessed 18 October 2013).
94. CEDEFOP. Skills supply and demand in Europe Medium-term forecast up to 2020. Luxembourg: Publications Office of the European Union; 2010. Available from URL: http://www.cedefop.europa.eu/en/Files/3052_en.pdf (Accessed 18 October 2013).
95. European Commission. Commission Staff Working Document. On an Action Plan for the EU Health Workforce. SWD(2012) 93 final. Strasbourg: 18 April 2012. Available from URL: http://ec.europa.eu/dgs/health_consumer/docs/swd_ap_eu_healthcare_workforce_en.pdf (Accessed 18 October 2013).
96. Joint Action on health Workforce Planning and Forecasting. Homepage. Available from URL: <http://euhwforce.eu/> (Accessed 18 October 2013).
97. Corsini V. Population and social conditions. Highly educated men and women likely to live longer: life expectancy by educational attainment. Eurostat statistics in focus 24/2010. Available from URL: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-10-024/EN/KS-SF-10-024-EN.PDF (Accessed 18 October 2013).
98. Eurostat. European Union Statistics on Income and Living Conditions (EU-SILC). Available from URL: http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc (Accessed 18 October 2013).
99. Mackenbach JP, Meerding WJ, Kunst AE. Economic implications of socio-economic inequalities in health in the European Union. Luxembourg: European Commission; 2007. Available from URL: http://ec.europa.eu/health/ph_determinants/socio_economics/documents/socioeco_inequalities_en.pdf (Accessed 18 October 2013).
100. Devaux M, de Looze M. Income-related inequalities in health service utilisation in 19 OECD countries 2008-2009. OECD Health working papers No 58. OECD Publishing; 2012. Available from URL: http://www.oecd-ilibrary.org/income-related-inequalities-in-health-service-utilisation-in-19-oecd-countries-2008-2009_5k95xd6stnxt.pdf?contentType=/ns/WorkingPaper&itemId=/content/workingpaper/5k95xd6stnxt-en&containerItemId=/content/workingpaperseries/18152015&accessItemIds=&mimeType=application/pdf (Accessed 18 October 2013).

101. ASSPRO CEE 2007. Collaborative Focused Research Project FP7-SSH-2007. Available from URL: <http://www.assprocee2007.com/> (Accessed 18 October 2013).
102. European Commission. Commission Recommendation of 20.2.2013. Investing in children: breaking the cycle of disadvantage. C(2013) 778 final. Brussels: 20 February 2013. Available from URL: http://ec.europa.eu/justice/fundamental-rights/files/c_2013_778_en.pdf (Accessed 18 October 2013).
103. European Commission. Commission Staff Working Document. Follow-up on the implementation by the Member States of the 2008 European Commission recommendation on active inclusion of people excluded from the labour market. SWD(2013) 39 final. Brussels: 20 February 2013. Available from URL: <http://ec.europa.eu/social/BlobServlet?docId=9767&langId=en> (Accessed 18 October 2013).
104. HOPE European Hospital and Healthcare Federation. The crisis, hospitals and healthcare. Brussels: HOPE Publications; April 2011. Available from URL: http://www.hope.be/05eventsandpublications/docpublications/86_crisis/86_HOPE-The_Crisis_Hospitals_Healthcare_April_2011.pdf (Accessed 18 October 2013).
105. European Commission, Economic Policy Committee. The 2009 ageing report: economic and budgetary projections for the EU-27 Member States (2008-2060). Luxembourg: European Economy; February 2009. Available from URL: http://ec.europa.eu/economy_finance/publications/publication14992_en.pdf (Accessed 18 October 2013).
106. Commission of the European Communities. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Solidarity in health: reducing health inequalities in the EU. COM(2009) 567 final. Brussels: 20 October 2009. Available from URL: http://ec.europa.eu/health/ph_determinants/socio_economics/documents/com2009_en.pdf (Accessed 18 October 2013).
107. Commission of the European Communities. Commission Staff Working Document. Report on health inequalities in the European Union. SWD(2013) 328 final. Brussels: 4 September 2013. Available from URL: http://ec.europa.eu/health/social_determinants/docs/report_healthinequalities_swd_2013_328_en.pdf (Accessed 21 October 2013).
108. European Commission. Executive Agency for Health and Consumers. Joint Action on Health Inequalities (Equity Action). Project database. Available from URL: <http://ec.europa.eu/eahc/projects/database.html?prjno=20102203> (Accessed 18 October 2013).