The Initiative for Sustainable Healthcare Financing in Europe

MANAGING CHRONIC DISEASE IN EUROPE

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Chronic conditions and diseases are the leading cause of mortality and morbidity in Europe, and research suggests that complex conditions such as diabetes and depression will impose an even greater health burden in the future. It has been estimated that in 2005 77% of all Disability-Adjusted-Life-Years (DALYs) and 86% of premature deaths in the WHO European region are related to non-communicable diseases. The condition expected to increase most dramatically is dementia. The main risk factors for chronic disease are tobacco use, overweight and obesity, hypertension, alcohol abuse, and a sedentary lifestyle. Some years ago chronic diseases were meant to be a problem of the rich and elderly population. Today we know that within high income countries, poor as well as young and middle-aged people are affected by chronic conditions.

The economic implications are serious from a macroeconomic perspective as well as from a microeconomic perspective. Chronic diseases depress wages, earnings, workforce participation, labour productivity and hours worked – and they may also lead to early retirement, high job turnover and disability. Disease-related impairment of households' consumption and educational performance impacts on the gross domestic product (GDP) and on its growth rate. Spending on chronic care is rising across Europe and consuming growing portions of public and private budgets. The cost of chronic diseases and their risk factors, as measured by cost-of-illness studies, is sizeable, ranging up to 6.77% of a country's GDP.

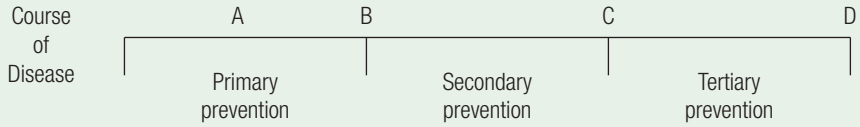
Policy makers in Europe need to take action if they want to improve chronic disease management. This report aims to inform decision-making by giving an overview of the available strategies and interventions as well as empirical evidence on their effectiveness and cost-effectiveness. The report also focuses on five areas of managing chronic disease where policy makers must act, giving recommendations in each area:

- Pharmaceutical and medical innovations
- Financial incentives
- Coordination
- Information and communication technology (ICT)
- Evaluation

This booklet summarizes the main conclusions of the full report 'Managing Chronic Disease in Europe', which can be downloaded at www.sustainhealthcare.org

Prevention and Early Detection

Most countries are trying to combat chronic conditions by experimenting with prevention and early detection. These approaches aim to reduce the burden of chronic disease by activities that avoid impairment to health, or make it more unlikely. Prevention includes primary, secondary or tertiary approaches which differ in aims and target groups.



A-B	Period of increased risk
B	First observable pathophysiological changes
C	First changes perceivable by patient
D	Course can no longer be influenced

Primary prevention is directed at the prevention of illnesses by removing the causes. The target group for primary prevention is healthy with respect to the target disease.

Secondary prevention aims at identifying the disease at an early stage so that it can be treated. This makes possible an early cure (or at least the prevention of further deterioration). The target group for secondary prevention consists of people who are already ill without being aware of it, or who have an increased risk, or who have a genetic disposition.

Tertiary prevention is directed toward people who are already known to suffer from an illness. This is therefore a form of care. Tertiary prevention includes activities intended to cure, to ameliorate or to compensate. For example, the avoidance of complications or the prevention of progress of disease would be classed as tertiary prevention.

Research indicates that approaches combining several interventions at once are most effective. Cost-effectiveness analyses indicate that there are efficient strategies to combat chronic disease, but they are rarely more cost-effective than therapeutic interventions. Cost-effectiveness varies considerably according to region and population group. Regional factors for each intervention must be carefully examined, and relevant target groups defined carefully so that policy makers can do more than just choose between: broad implementation or no implementation at all. Prevention interventions are far from developed in most countries. Because of the severe medical, social and economic consequences of chronic diseases, more effort and resources have to be invested in prevention and early detection.

New providers, settings and qualifications

Health care has recently seen the emergence of new providers, settings and qualifications. Once it became clear that traditional demarcation lines between physicians and nurses could harm quality of care, new professions - such as nurse practitioners, liaison nurses and community nurses - were set up. The tasks and responsibilities of existing professional groups have been shifted and expanded. For example, physicians now have a coordinating role by guiding patients through the health system. Over the past 10 years new ways of providing services have been set up. Collaborative models - such as group practices, medical polyclinics and nurse-led clinics - are more patient-oriented. A key challenge is to support health workers in carrying out their new duties and responsibilities. There is a need for well-targeted training, particularly for those at the lower levels of the professional hierarchy. Evidence on these new qualifications and settings is limited, but pilot studies suggest that primary care nurses with more qualifications and responsibilities provide better care. New qualifications, structures and settings can help to improve the management of chronic diseases. Nevertheless, future research must build on these early results to see whether improvements justify investment, and also to inform future decisions.

Disease management programmes

Disease management programmes (DMPs) have been introduced by many European countries to improve chronic care and contain costs. The aim is to improve coordination by focusing on the whole care process, building on scientific evidence and patient involvement. There are still insufficient rigorously designed large-scale population-based evaluations, but smaller studies suggest that these programmes may improve care.

Summary of evidence for various disease management programme outcomes by disease

Disease	**Clinical processes** Adherence to evidence-based guidelines	**Health-related** Changes in behaviors	**Disease control** Changes in intermediate measures	Clinical outcomes	**Healthcare utilsation** Changes in utilization of services	Financial outcomes	**Patient experience** Satisfaction, quality of life, etc.
Congestive Heart Failure	**Improved**	Inconclusive evidence	**Improved**	Inconclusive evidence	Reduced hospital admission rates	Inconclusive evidence	**Improved**
Coronary Artery Disease	**Improved**	Evidence for no effect	**Improved**	Evidence for no effect	Inconclusive evidence	Inconclusive evidence	Insufficient evidence
Diabetes	**Improved**	Evidence for no effect	**Improved**	Insufficient evidence	Inconclusive evidence	Inconclusive evidence	Insufficient evidence
Asthma	Inconclusive evidence	Inconclusive evidence	Inconclusive evidence	Evidence for no effect	Inconclusive evidence	Evidence for no effect	Insufficient evidence
Chronic obstructive pulmonary disease	Insufficient evidence	Insufficient evidence	Inconclusive evidence	Insufficient evidence	Insufficient evidence	Insufficient evidence	Insufficient evidence
Depression	**Improved**	N/A	**Improved**	Inconclusive	Increased evidence	Increased utilization	**Improved** costs

Source: Mattke et al. (2007)

Several studies have shown the benefits of providers following evidence-based guidelines. Patients' behaviour has also changed, as expressed in greater patient satisfaction and adherence to treatment. Generally, the evidence suggests an improvement in the care process. The evidence on medical outcomes, however, is still inconclusive. Only a few studies have shown that disease management programmes affect mortality and other health-related outcomes. The evidence on cost-effectiveness is similarly inconclusive. Economic evaluation studies look only at costs and do not consider the relation of costs and benefits. Providers and insurers must make the data they collect available for research, and evaluation must become an integral part of these programmes.

Integrated care

Integrated care models respond to the fact that chronic diseases can rarely be treated in isolation. Patients often have several chronic diseases or conditions at a time and need care from different providers. These models organise treatment (and prevention) so that services are better integrated across the whole range of care. Examples in Europe are the introduction of case management by the National Health Service (NHS) in the UK, or the pilot projects in Spain in which the whole care process is provided by only one source. All over Europe various forms of provider networks and interventions have been set up to close the gap between primary and hospital services. Between 2004 and 2008, 1% of all payments for physicians and hospitals were earmarked for investing in integrated-care projects. The effectiveness of these projects remains uncertain because so far the evidence is limited. Several components – such as self-management support, delivery system design and decision support – seem to be effective, but there is a lack of large-scale population-based studies. Some of the preliminary results give cause for optimism, but, given the complexity of integrated care models, implementation will be challenging and future studies should focus on this. As for cost-effectiveness, early results are inconclusive. Policy makers must ensure that costs, savings and benefits are studied in more detail.

SHAPING THE FUTURE OF MANAGING CHRONIC DISEASES IN EUROPE

Shaping the future of chronic disease management in Europe will be a challenge. The epidemiologic and economic analyses suggest that policy makers should make disease management a top priority. But choosing the right strategies will be difficult, particularly given the limited evidence on effectiveness and cost-effectiveness. Policy makers need more than academic evidence on individual interventions; they also need to know which institutional and organisational conditions favour successful chronic disease management and where the gaps in knowledge need to be closed. The report provides policy makers with recommendations for effective chronic disease management and suggests areas of research that will help them to draw further conclusions.

Pharmaceutical and medical innovation

- Personalised drugs are one of the main trends in the development of pharmaceuticals. However, using specialised medication to manage chronic disease brings a new set of problems. In particular, policy makers need to consider how to organise effectively licensing and reimbursements for personalised medicine. Therapeutic innovations will have to be introduced without sacrificing patient safety; and so far few adequate policy solutions have been proposed.
- Drug development and approval aiming to improve quality of life need different approaches when it comes to assessing cost-effectiveness and cost-benefit. Previous parameters, such as narrow clinical outcomes, are insufficient. Evaluating efficacy, effectiveness or cost effectiveness must be supplemented – within rigorously conducted trials – by patient-related parameters, such as satisfaction and quality of life. Policy makers must adapt their licensing and reimbursement schemes accordingly.
- The required evaluation should not block authorisation and implementation of new pharmaceuticals and medical devices, but be conducted as quickly as possible.

Financial incentives

- Research shows that chronic illnesses and chronic conditions are increasingly inter-related. Policy makers should therefore consider integrating or linking chronic care programmes.
- Continuity of care is a key prerequisite for payer or provider investment in chronic disease management programmes. Health systems that have traditionally focused on ‘patient choice’, little enrolment with particular providers and/or fee-for-service payments – all of which led to relatively poor continuity of care – face the greatest difficulties in aligning financial incentives to promoting better management. Given this, policy makers should consider strengthening or introducing financial incentives that will encourage ’continuity of care‘.
- In most European countries, different professional groups are paid according to separate schemes. However, effective care often depends on the co-operation of multidisciplinary teams. Different incentives for different members of the same team may frustrate common efforts, where economic interests motivate different treatments. Policy makers should align compensation schemes for health professionals working together in chronic care.
- Financial incentives encouraging a few narrow goals can lead to excessive focus on these goals, together with ‘gaming’ or better reporting without any improvements in quality. Policy makers should set out quality indicators that reflect different aspects of quality (structure, process and, where possible, outcome).
- Financial incentives for individuals may undermine cooperation, while financial incentives to organisations may have little impact on the motivation of individuals. Using small to medium multidisciplinary teams seems to yield positive outcomes, so policy makers should consider targeting these when introducing financial incentives.

Coordination

- The complexity and variety of people involved in chronic care means that better coordination will not emerge spontaneously. Decision makers must make better cooperation a priority in order to overcome deeply-rooted vested interests and professional scepticism. Better coordination will only become a realistic goal if it is adequately managed and politically supported. Policy makers must decide early whether change can be implemented in the existing system, or whether fundamental reform is needed.
- Policy makers should decide what mix of top-down and bottom-up management they want for improving coordination. Policy makers must take into account the likelihood of bringing about change. They should also consider whether their approach will fit in with established mechanisms of accountability and responsiveness. Policy makers should choose between parallel policy initiatives or one integrated national strategy.
- The debate about whether to increase access through multiple entry points or strengthen continuity of care and improve navigation with gatekeeping shows that policies to improve chronic care often involve trade-offs for different groups of patients. Policy makers should define the target population of their strategies in order to minimise unintended consequences and side-effects.
- Separate and shared responsibilities within and between providers should be clearly defined in order to prevent duplication or omissions. Policy makers should set up remuneration schemes that will allow cooperation across primary and secondary sectors, professional groups and competing providers.
- Policy makers should enable health professionals to fulfil their new responsibilities. This means setting up the appropriate legal framework, providing training, and helping to build trust between professional groups that are not used to working together.

Information and Communication Technology (ICT)

- Agreeing on technical standards is essential because one of the key challenges is to achieve functional interoperability within health systems. Policy makers should get those involved together and ensure that they agree on goals and standards for information technology.
- Modern information technology can store vast amounts of data, but health professionals usually need carefully selected pieces of information combined in a specific way. Since time is critical, both in terms of costs and medical treatment, intelligent ways of compressing, aggregating and interpreting information must be found. Policy makers should insist that systems are developed in order to meet the needs of health professionals.
- Long term cost-benefit analyses of information technology should be undertaken: pilot projects in Austria, Canada, France, Germany, Italy, Japan, Switzerland and the United States have found relatively high costs, budget overruns and many unforeseen difficulties.
- Policy makers should ensure that patients accept the new electronic systems. Where necessary, laws must be passed to ensure strict standards on data protection, and to affirm patients' rights to access their records.

Evaluation

- Policy makers should ensure that evaluation is an integral part of programmes to improve chronic disease management. Adequate incentives or regulations should be applied to encourage programme designers to take account of the need for evaluation. For example, constant quality control through defined evaluation should be compulsory for large scale publicly-funded programmes.
- Policy-makers need to develop internationally agreed standards and methods of evidence-based evaluation, and make their procedures and policy decisions more transparent.
- The need for evaluation should not hinder innovation or be used as an excuse for uncontrolled implementation. Policy makers must use a step-by-step approach, such as getting a small number of providers to use the technology, strategy or organisational component on a small number of patients. Once positive results are available, the numbers of providers and/ or patients may be increased.
- Data routinely available in different sectors of the health system (for example, for reimbursement) should be made available so that independent researchers can carry out in-depth analyses of effectiveness and cost-effectiveness.

THE INITIATIVE FOR SUSTAINABLE HEALTHCARE IN EUROPE

The Initiative for Sustainable Healthcare Financing in Europe was established in 2005 in the context of Luxembourg's EU Presidency and its priority of sustainability. Its aim has been to sponsor new forward-looking and practical research into the sustainability challenges facing healthcare in Europe.

With the endorsement of Luxembourg's Ministry of Health and Finland's Innovation Fund SITRA, four reports were written and delivered as one policy document – the first Cox Report – at a Conference in Helsinki in February 2007.

The two papers unveiled at the 'Securing Europe's Healthcare Future' conference in Prague – **Managing Chronic Disease in Europe** by Dr. Reinhard Busse and **The Future of Health Technology Assessment in Europe** by Dr. Panos Kanavos – represent a more in-depth follow up to that research. These two pieces of original research feed directly into the current high-profile debates on the future of European healthcare – both at Member State and EU level – as European societies face the increasing challenge of ageing populations and the quest to ensure value in healthcare.

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