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Ageing and the challenge of chronic disease: Do present policies have a future?*

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One of the key challenges we face today as professionals, policymakers, political stakeholders, patients, and citizens is the increasing incidence of chronic disease in an ageing population. This phenomenon and its impact on healthcare systems is just one of several emerging global trends that are converging to create major socioeconomic and political conundrums in the 21st century.\(^1\)

Current demographic trends are of course a worldwide phenomenon. While industrialized countries are feeling the greatest effects of these changes today, the impact of these trends on public health and healthcare will sooner or later be felt in emerging and developing economies as well. To address successfully the expected rise in the incidence of chronic disease and the concomitant demand for health and social services, governments everywhere will need to develop new policy approaches. These new approaches should embrace long-term thinking and be based on a commitment to patients and citizens as partners in health.

**What the future holds**

Falling fertility rates and increasing life expectancies have made population ageing a worldwide trend. The median age in all regions is expected to rise significantly over the next several decades. Europe, with a median age set to go from 38 to 48 by 2050, is the oldest region on the globe and is expected to stay that way.\(^2\) However, if we consider the even greater increases expected in regions like Latin America, Africa and Asia, it becomes clear that major social and economic transformations will take place. Global population dynamics are such that the same trends experienced in the industrialized world in the second half of the 20\(^{th}\) century -- that is, a decline in the proportion of younger people relative to those aged 60 and over -- will be experienced by developing and emerging counties in the first half of the 21\(^{st}\) century.

The process of population ageing is not only marching forward in Europe, it’s picking up pace. By 2050 almost one-third of the population will be over 65. From now until that time the proportion of those aged 65 to 79 will grow by 50%, and the proportion of the very old (80+) is expected to increase three-fold. Even the proportion of those over age 50 is set to grow steadily over the next 20 years.\(^3\)

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All of this has obvious implications for population health. In Europe and globally, we are seeing a shift away from infectious diseases (with some exceptions) and toward chronic diseases typical of the ageing process. The four leading causes of death in 2030 globally are expected to be cancers, ischemic heart disease, stroke, and HIV/AIDS, in that order. At the same time, deaths from lower respiratory infections, perinatal conditions, diarrheal diseases, malaria and measles and other infectious diseases are projected to decline substantially.4

Similarly, chronic conditions are responsible for an increasing burden of disease at the global, national and local levels. Over the next 25 years, depression, heart disease, stroke, diabetes, depression, osteoarthritis and respiratory illness, as well as vision and hearing disorders – in short, conditions associated with ageing -- are expected to move up in rank order of the causes of disability-adjusted-life-years (DALYs), while infectious diseases – with the exception of HIV/AIDS -- and similar maladies are expected to decline in importance.5 This increase in the burden of chronic disease will put additional pressure on health systems already under strain from limited resources, new technologies with the potential for improving and saving lives, and a rising demand for services.

As more and more people live longer lives, many of us will develop one or more chronic conditions. And while certain evidence shows a decrease in disability (at least in the US and Europe), the projected increase in the number of older citizens is expected to create a higher incidence of disability overall in certain populations. What’s more, in some countries, such as the US, it’s not clear that the current decrease in disability can be sustained, given rising levels of obesity.

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4 Colin Mathers and Dejan Loncar, Updated Projections of Global Mortality and Burden of Disease, 2002-2030: Data Sources, Methods and Results (Geneva: WHO Evidence and Information for Policy, 2005), 6.

5 Ibid.
The inevitable result will be an increase in public spending on health and long term care. The European Commission estimates that public spending on health care as a percentage of GDP in the EU will increase by between 1 and 2 percentage points between now and 2050, while long-term care is expected to increase by more than half a percentage point.\(^6\) Taken together this represents nearly a 30% increase over current spending levels.

![Projected growth in public spending on health and long term care for EU 25, as percent of GDP](source: European Commission, Economic Policy Committee, 2006)

However, the capacity of governments to handle these increases is uncertain. Under current demographic trends, public spending on pensions, for example, will take up an increasing proportion of national budgets. In the EU such spending is projected to increase a further 20% as a share of GDP.\(^7\) Furthermore, age dependency ratios are increasing, again as a result of demographic trends. In OECD countries they are expected to double between 2000 and 2050.\(^8\) The European Commission has estimated that by the year 2050, instead of four working age people in Europe for every person over 65, there will be only two to provide the tax revenues that support public budgets.\(^9\) So the capacity of governments to pay for the increasing demand for health services will be squeezed thinner and thinner.

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\(^7\) Ibid, 65.


The challenge to policymakers

The pressure on health care systems is even more complex when we take into account other socioeconomic changes taking place in society today. In Europe countries are experiencing increased migration, which not only adds numbers to the ranks of those who need coverage, but also creates challenges relating to access to health services benefits. Governments are being held accountable to redress persistent health inequalities with respect to vulnerable and disadvantaged groups. Patients are increasingly mobile in their search for and use of health services; today, for example, a citizen of Poland might cross the border to have surgery done in Germany.\(^{10}\) And there has been an increase in citizens’ expectations about what their health systems can and should deliver. In an age of consumerism and democratization of public policy, the social contract with regard to the provision of health care is being debated widely.\(^{11}\)

All of these pressures represent an array of competing values and priorities among various stakeholders in health systems. The challenge for policymakers is multi-dimensional:

- How to balance cost and consumer expectations, while at the same time maintaining the commitment to equity and solidarity?
- As stewards of public health and limited public funds, how to ensure value for money while improving the quality of care?

How we respond to the chronic disease epidemic will have a significant impact on our ability to balance these competing priorities successfully. We cannot ascribe the current burden on national health systems to ageing or the elderly: ageing \textit{per se} is not the problem -- it is disability and poor health that are costly.\(^{12}\) If we want to reduce or at least mitigate this burden, we should focus on promoting active, healthy ageing, and on reducing or delaying the onset of disability and ill health.

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As population ageing and associated loss of workforce continues, ensuring individuals’ ability to remain productive longer takes on new importance. However, while many of the leading causes of morbidity, disability, and mortality in the ageing and the elderly can be prevented or postponed, often they are either under-diagnosed or under-treated.

We have to take a step back and look at how our health systems are set up to accomplish such diverse and challenging objectives. One might ask -- do current health policies have a future?

Why current policies won't work: the dominance of short-term thinking

Unfortunately, all too often current health policies and approaches are inadequate to meet these challenges. One of the key reasons for this situation is the dominance of short-term thinking. Health care in most countries is tied to annual budget cycles and designed to treat illness in the short term. The system responds to specific incidents like a heart attack or stroke – rather than supporting integrated, long-term approaches to disease management. Public health researchers have already begun to point this out, calling for a shift in focus away from acute care and toward chronic disease management.13

Related to this point is the need for increased investment in health promotion. While attempts to reduce the burden of disease are leading to a new attention to issues of health promotion and prevention, most experts agree that new and increased efforts are needed to affect positively the determinants of health and increase people's control over their own well-being. International calls for action have urged governments to consider public policy approaches that more effectively support health goals, to create supportive environments for individual health, to increase

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investments and promote social responsibility for public health, to empower individuals and communities, to secure an adequate infrastructure for health promotion, and to forge new alliances with the private sector and other stakeholders.14

Also, current policies are too fragmented to deal with the complexity of chronic disease and the challenges of long-term prevention and management. With regard to resource allocation, budgets for health promotion and various levels of health care are often viewed in separate silos, without consideration of how they interact. As a result, decision-making tends to be characterized by a short-sighted focus on cost-containment rather than long-term efficiency. In the area of pharmaceutical reimbursement, for example, this typically means that new, innovative therapies that can save or improve the quality of life encounter resistance from health authorities, even in cases where the potential reductions in morbidity and co-morbidities, or the needs for surgeries, hospitalization or long-term care could be significantly reduced.

**Missed opportunities: the value of innovative medicines**

While it is easy to focus only on the cost of innovative medicines, it is worthwhile to consider and quantify their benefits.

A substantial body of evidence exists on the cost/benefit equation for medical advances. Frank Lichtenberg, an economist at Columbia University, finds a significant positive relationship across diseases between use of new drugs and mortality reduction, concluding that 45% of the reduction in mortality between 1970 and 1991 was due to the introduction of new drugs.15 Lichtenberg also finds that use of newer drugs (post 1980) tends to lower missed work or school days and non-drug medical spending such as office visits and hospital stays, which results in a net reduction in the total cost of treating a given condition.16 Research by David Cutler and Mark McClellan has also demonstrated that spending on prescription drugs lowers expenditures in other parts of the healthcare system, and in the case of several serious conditions is worth the increased cost of care.17 Other research has also confirmed that advances in medical science and technology were instrumental in the reduction of avoidable mortality in industrialized countries in the latter part of the 20th century.18

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The value of saving lives is illustrated a 2005 study by Kevin Murphy and Robert Topel, who that in the US, the historical value of the gains in increased longevity over the 20th century, both from reducing mortality and increasing quality of life, have been substantial. Between 1970 and 2000 increased longevity added roughly 3.2 trillion dollars per year to US national wealth, an amount equal to about half the average annual GDP over the period. Cumulative gains in life expectancy were worth over 1.2 million dollars per person. The study also finds that future innovations in healthcare can potentially generate similar gains -- a 1 percent reduction in cancer mortality could be worth nearly 500 billion US dollars.¹⁹

![Value of reduction in death rates from selected diseases](image)

Research results like these make a compelling case for the value of innovation. However innovative medicines are rarely welcomed as a way of potentially reducing the long-term costs of disease and disability. As noted earlier, policymakers are under intense pressures to balance many competing priorities, and the short-term imperative (which often wins out) is to keep budgets under control. However, while such cost-containment strategies may appear to make sense on an intuitive level, in reality they are at best a stop-gap that does not produce the desired result. Patricia Danzon at the University of Pennsylvania has found that reference pricing, for example, may keep new drug prices from exceeding a certain maximum level, but they also prevent competition among lower-priced producers.²⁰ This limits the savings that governments could actually realize.

Above all, cost-containment practices do not serve the interests of citizens. In Europe delays in market access for new medicines result in a wide disparity in access to new treatments that could save or improve millions of lives.²¹ An analysis by Europe Economics has shown a four-year gap

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between the first and last EU member state to approve a drug, and that on average there is a two-year disparity in access.\textsuperscript{22} This not only hurts efforts to reduce the burden of disease, it also conflicts with the principles of equity and solidarity that European governments are committed to uphold.

**Lack of attention to the specific needs of the elderly**

Another shortcoming in current approaches to chronic disease is that they often fail to take into account the specific needs of the elderly. A recent report on the *State of Ageing and Health in Europe*, a joint effort of the International Longevity Center UK and The Merck Company Foundation, provides new insights into health inequalities and other patterns of diversity among the elderly in the European Union.\textsuperscript{23} The report highlights inequalities in life expectancy, overall health status and access to services not just across Member States, but also within individual European countries. Older women, members of ethnic and cultural minorities, socially isolated groups and disabled older people are particularly at risk.

As the report points out, governments should give greater attention to the health needs of older citizens, including programs specifically aimed at preventing disease in older people and especially vulnerable older populations, better health information for older people and their caregivers, better research and evidence on the health status and needs of older people, and more sustainable models of care that better integrate various types and levels of health and social care.

**Failure to embrace empowered patients**

The third major reason why current policies toward chronic disease are insufficient to meet the challenge is that most health system models are still predicated on the image of patients being a passive recipient of health care – a subject willing to accept without question the advice of his or her healthcare or insurance provider. However, today we live in a different reality, where patients and citizens increasingly want more involvement in decisions affecting their own healthcare. In today’s world, provider-dominant models of care are becoming an anachronism.


**Why current policies won’t work**

1. **Short-term thinking**
   - Orientation toward acute not chronic care
   - Insufficient investment in prevention, health promotion
   - Fragmentation of policies
     - cost containment at the expense of innovation
2. **Insufficient attention to health needs of the elderly**
3. **Patient viewed as passive recipient of care**

Across Europe we are seeing a new awareness of patients’ and citizens’ rights with respect to healthcare. This is apparent in the growth of patient networks in many countries and internationally, exemplified by the Spanish Patients Forum and its new Patients University, in the recent development of grass-roots initiatives such as the Active Citizenship Network’s European Charter of Patients Rights, a 14-point declaration written by and for patients’ and citizens’ organizations, and in the appearance of consumer-oriented reports on health system performance, such as the European Health Consumer Index, developed by the Health Consumer Powerhouse in Brussels.

Evidence has shown that people want a greater say in decisions affecting their own healthcare, and that health systems are not presently equipped to meet these demands. A study conducted in 2002 by the Picker Institute Europe found that across Europe about three out of four citizens think patients should be involved in treatment decisions, either as the dominant player or in partnership with their provider. By contrast, only about one-third felt their doctors encouraged sufficient dialogue with them, while nearly half felt they lacked sufficient information about new treatments. Additionally, over half of respondents – 57% -- rated their opportunities for choice as moderate to poor.

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24 http://www.universidadpacientes.org/
26 http://healthpowerhouse.com/media/RaportEHC12006en.pdf
A more recent survey supports the notion that patients are ready to take their rightful place as stakeholders in the healthcare system. The International Alliance of Patients' Organizations has found that the three healthcare issues patients care most about are 1) having accurate, relevant and comprehensive information for patient and their caregivers to help them make informed decisions about treatment, 2) ensuring access to necessary services, treatments and preventative care, and 3) having patient-centered healthcare policies that respect their individual values, needs and independence.28

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Where patients stand on healthcare issues

Where key healthcare issues are concerned, members of patients' organizations express their strongest agreement with the need for:

- accurate, relevant and comprehensive information for patients and their caregivers, to help them make informed decisions about treatment [98%, 78%]

- ensuring access to necessary services, treatments and preventive care [97%, 77%]

- patient-centred healthcare policies that respect their unique needs, values and independence [95%, 66%]

Q7. Would you say you strongly agree, agree somewhat, disagree somewhat or strongly disagree with each of the following statements?

Source: International Alliance of Patients' Organizations, 2006
The trend toward patient empowerment could help governments deal with the current challenge of chronic disease. After all, informed and active patients are more likely to take responsibility for their own health, manage their conditions more effectively, and potentially be more efficient users of limited public resources. They are also more likely to seek diagnosis and treatment at an earlier stage, to adhere to recommended therapy, and to take their medicines correctly and safely. This makes them not only more efficient users of healthcare resources, but also potentially healthier than those who are not.

But governments today don’t fully acknowledge patients as stakeholders in the system. Patient-centered healthcare models, while a strong subject of discussion in health policy circles, are far from reality for most ordinary citizens. And the system as it is today does not offer patients what they need most urgently to make informed decisions about their healthcare – access to balanced, accurate and reliable information about health, healthcare and treatment options. It is ironic indeed that in many countries today one is able to read in the newspapers or see on TV information from industry about the putative heart-protective qualities of a low-fat margarine, but not about an approved medicine that could literally save your life.29

The assumption that patients must somehow be protected from information, rather than trusted to read and decide for themselves what is right for them, reflects the contrast between how the system is currently set up and how many patients themselves would like to see it work.

What needs to change

What are the key elements that future health policies should include to meet the challenge of chronic disease more effectively?

First, achieving health gains more efficiently will require new, more integrated approaches to health policy planning and implementation that emphasize long-term health gains over short-term budget concerns. For instance, greater investment in health promotion and in policies that enable people to make healthy choices throughout life can help ensure that people lead longer, healthier lives.

Similarly, it makes more sense to organize decision making not just in terms of specific expenditures, but rather in terms of how to reduce the burden of disease most efficiently. By setting national or regional health priorities, and making sure that only those therapies with the best clinical evidence are approved and reimbursed, government decision makers can ensure both that public health resources are used efficiently while also producing better outcomes for patients over time.

A further application of integrated policymaking is the Finnish government’s new emphasis on whole-government approaches to making health policy work. In this model, all actors in the system – even non-health actors such as Ministry of Finance, Industry or Environment are expected to play a specific role in the achievement of national health priorities and the

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improvement of public health.\textsuperscript{30} At the stakeholder level, all actors – governments, insurers, providers, patients, the private sector, community leaders, and others – can be involved in creating and implementing strategies for disease prevention and management. In this connection, public-private partnerships have an important role to play in helping to achieve government health objectives. As some have recently argued, partnerships among governments, NGOs and the private sector, if properly embraced, can make significant progress in addressing chronic disease as a global public health challenge.\textsuperscript{31}

### Looking to the future: Integrated, long-term approaches are key

- Focus on improving health
  - Health promotion, active ageing
- Priority setting, evidence based medicine
- Whole government approaches
- Whole-stakeholder solutions
- View all components of health system in a continuum of prevention, treatment, and care

In the same spirit of integration, many of the challenges presented by population ageing can be managed effectively through policies that promote healthy, active ageing, a concept pioneered by the WHO.\textsuperscript{32} Such policies aim to optimize opportunities for health at all stages of life, by creating living and working environments in which individuals can make healthy choices. They coordinate various health, social, economic and educational supports people need to prevent illnesses and accidents, and provide for early diagnosis and treatment of potentially chronic diseases. In this way, prevention and various types of healthcare can be seen as one part of the same continuum. In addition, healthy ageing policies facilitate the active engagement and responsibility of people with regard to their own health.

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\textsuperscript{31} Lois Qualm, Richard Smith, Derek Yach, "Rising to the global challenge of the chronic disease epidemic", \textit{The Lancet} 368 (7 October 2006): 1221-1223.
Second, and just as important, governments should embrace the current trend toward patient and citizen empowerment, and enlist the support of active, informed patients as partners in health. Informed, active patients, who take greater responsibility for their health and are empowered to participate in decisions affecting their own healthcare, can help to ensure better health outcomes and more efficient long-term disease management. To facilitate the trend toward patient empowerment, governments need to encourage greater dissemination of shared-decision making models in the clinical setting, and the use of patient-centered disease management techniques. To participate fully in healthcare decision making, patients and the public in general need access to balanced, accurate and reliable information about health and healthcare choices from a variety of sources, both public and private.

Finally, governments must explore new ways to ensure that people have access to the health information they want and need, and invest in health literacy so that they are sufficiently empowered to use that information to make the right choices for them and their families.

To summarize, present health policies are ill-suited to address the future burden of chronic disease we can expect given present demographic trends. To make real progress, a new mode of thinking is in order, one that effectively supports and promotes healthy, active ageing and uses integrated, comprehensive approaches to prevention and care that make the most of efficient use of limited resources. Further, governments should engage all stakeholders, putting citizens and patients at the center of care, and empowering them to make informed choices for longer, healthier lives. These recommendations are relevant not only for industrialized countries, already affected by the ageing and chronic disease trends, but also for developing and emerging economies, which will face these challenges equally in the coming decades.

While obvious, it is worth repeating that ageing and the elderly should not be perceived as a burden on society. However, only by dealing proactively with the increasing incidence of chronic disease and disability in our countries now will we be able to celebrate the new demographic profile in 2050, rather than long nostalgically for a simpler past.