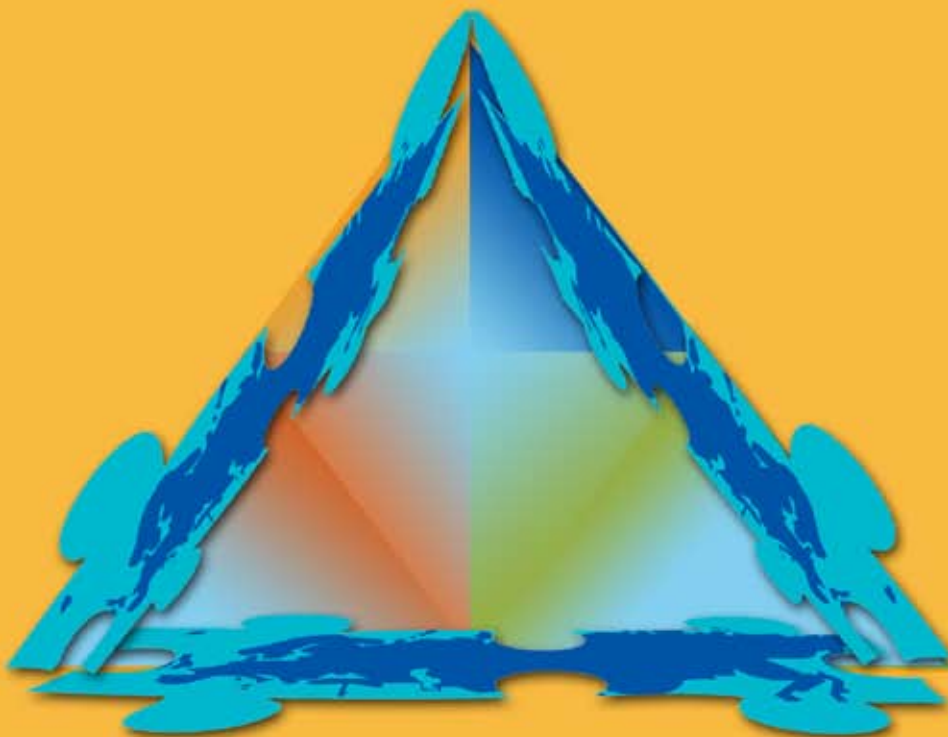




REGIONS FOR HEALTH NETWORK  
IN EUROPE



# HEALTH AND WEALTH REGIONAL PERSPECTIVES

## KEYWORDS

DELIVERY OF HEALTH CARE - organization and administration - economics  
PUBLIC HEALTH  
HEALTH CARE COSTS  
REGIONAL HEALTH PLANNING  
EUROPE  
ITALY  
FRANCE  
GERMANY  
UNITED KINGDOM  
SWEDEN  
SPAIN

---

Address requests about publications of the WHO Regional Office for Europe to:

Publications  
WHO Regional Office for Europe  
Scherfigsvej 8  
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/pubrequest>).

---

### © World Health Organization 2008

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

---

WHOLIS: E91414

Concept and design: Tuuli Sauren, Brussels, Belgium

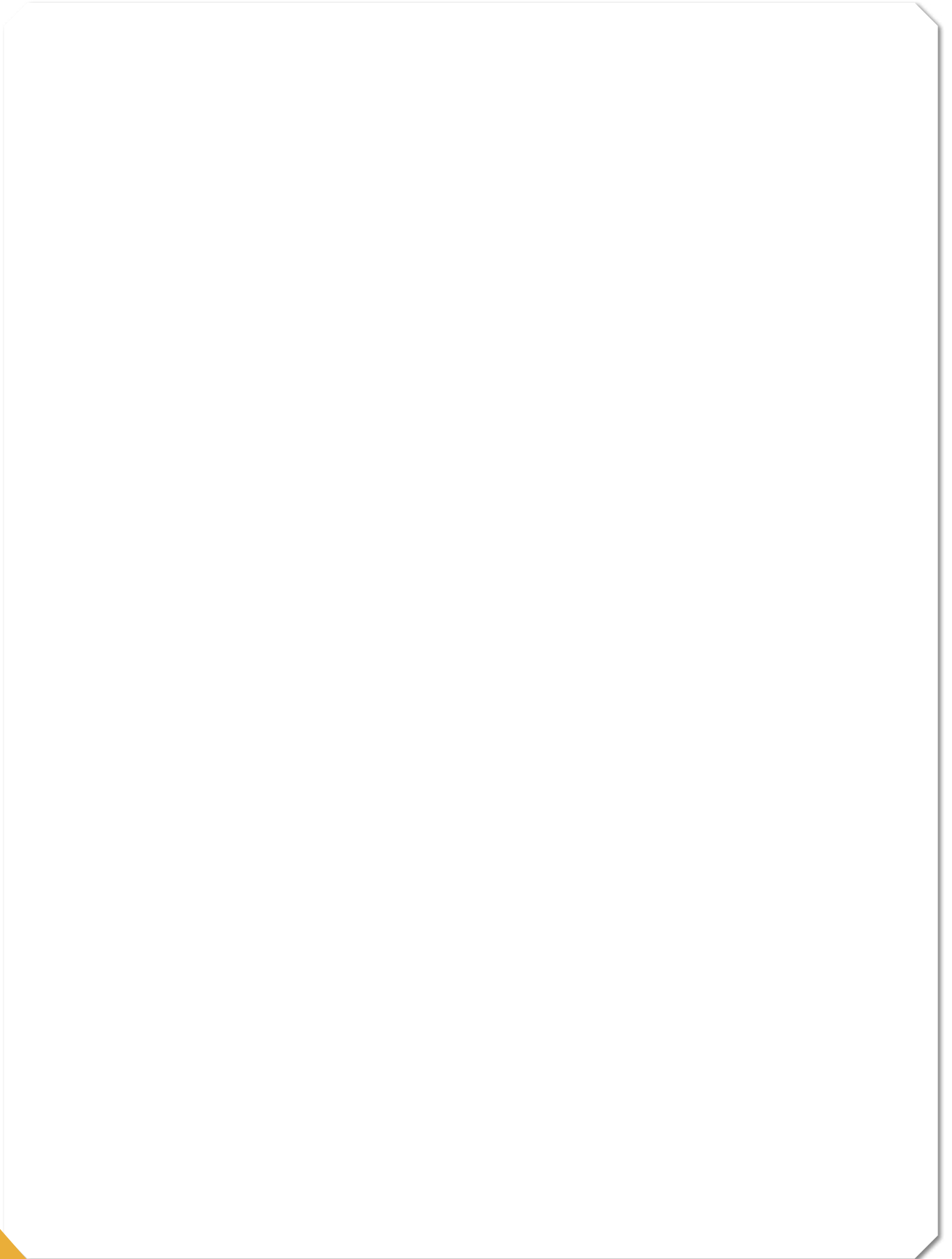
---



## **THE CONTRIBUTION OF REGIONS TO HEALTH AND WEALTH**

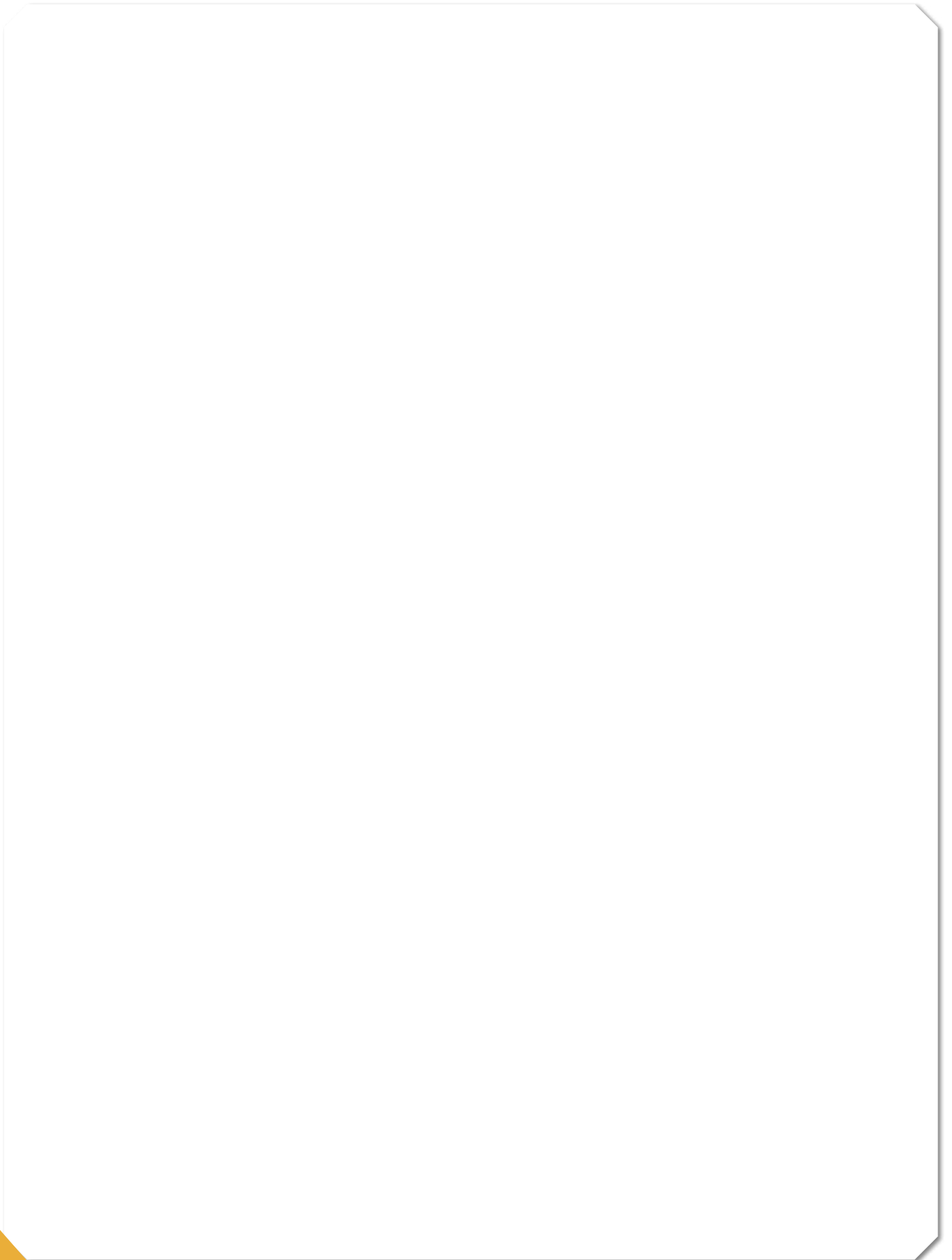
**Technical report for the WHO European Ministerial Conference on Health Systems: "Health Systems, Health and Wealth", Tallinn, Estonia, 25–27 June 2008**

English only



## CONTENTS

Introduction	3	Annex 1. The origins and development of the Regions for Health Network in Europe	29
Acknowledgements	4	References	30
1. Regions as a force for health	5		
<i>The rise of the regions</i>	5		
<i>Health and the regions</i>	6		
2. The relationship between health and wealth at the regional level	7		
3. Using health systems to generate wealth in regions	8		
<i>The example of North Rhine– Westphalia</i>	8		
<i>Linking health and regeneration – North East England and Health ClusterNET</i>	10		
<i>Investment for health to tackle inequity in health in North West England</i>	12		
<i>The good life in Västra Götaland</i>	15		
<i>The health system of Catalonia: from federal management to political federalism</i>	16		
<i>The Veneto Region – a multisectoral approach to providing health and social services</i>	19		
4. Measuring the performance and impact of regional health systems	21		
<i>Measuring regional variation</i>	21		
<i>Joint Information Project</i>	21		
<i>ISARE Project</i>	22		
<i>Comparing the management of regional health systems</i>	23		
5. Comparing the performance and impact of regional health systems: an example from Italy	25		
6. Postscript: reflections on the potential of regions to add value to health and wealth	27		



## INTRODUCTION

***Established in 1992, the Regions for Health Network in Europe now has 266 member regions with a population coverage of about 85 million, equivalent to 10% of the people living in the 53 Member States in the WHO European Region.***

From the outset, the Network's members worked together to strengthen the focus at the regional level on achieving the WHO targets for Health for All. The Network did this mostly through multilateral activities involving projects and information transfer and by raising the level of awareness of the need for intersectoral action.

In 2007, the Network celebrated 15 years of successful work. Its 15th Annual Conference focused on regional health and wealth. North Rhine–Westphalia, which hosted the Conference, hosted the 1st Annual Conference in 1992.

This technical report is based on papers presented at the Conference but also draws on other material and sets out the important role that regions can play in generating both health and wealth to benefit their residents.

## ACKNOWLEDGEMENTS

The Regions for Health Network in Europe expresses gratitude to all the member regions of the Network, to the member regions that have provided input on their work and to the individuals and experts who have presented and contributed to the importance of health and wealth at the subnational level.

The Network especially thanks: Shouka Pelaseyed, Technical Focal Point of the WHO Regional Office for Europe for the Network and Chris Riley, Wales, United Kingdom for editing and promoting the work of the Network; Marianna Penzes of Szabolcz-Szatmar (host of the Network's rotating secretariat); North Rhine–Westphalia: Stefan Winter, State Secretary of North Rhine–Westphalia, for hosting and supporting the work, Helmut Brand for being the driving force and Manfred Dickersback, Josef Hilbert, Uwe Borchers, Bernd Kowall, Peter Schröder-Bäck and Birgit Weihrauch; Francois Decaillet, Senior Adviser and Representative of the WHO Regional Office for Europe to the European Union; Mary Collins, Former Acting Head of the WHO Country Office in the Russian Federation and former Minister of Health of Canada; Tony Batty, Department of Health, North East England, United Kingdom; Dominic Harrison, Deputy Regional

Director for Public Health, North West England, United Kingdom; Göran Henriksson, Senior Public Health Adviser, Västra Götaland Region, Sweden; Enric Mayoles Ferrer, Head of European Affairs, CatSalut, the Catalan Health Service, Catalonia, Spain; Luigi Bertinato, Director, International Health and Social Affairs, Department of Health and Social Services, Veneto Region, Italy; André Ochoa, Project Coordinator of ISARE from the Observatoire régional de la santé d'Aquitaine (FNORS); and Vittorio Mapelli, University of Milan, Italy.

Additional thanks to Jennifer Bremner of the European Health Management Association (EHMA); Jeremy Thorp of the Central Design Authority and Technology Office of the National Health Service, United Kingdom; Zilvinas Padaiga, Kaunas University of Medicine, Lithuania; Jon Magnussen, Department of Public Health and General Practice, Faculty of Medicine, Norwegian University of Science and Technology, Trondheim, Norway; to the member regions of the Network for their continual dedication and hard work; and to all the observer regions that participated and contributed to the discussions.



# 1. REGIONS AS A FORCE FOR HEALTH

## The rise of the regions

Since the Second World War, Europe has seen a drive for stability, prosperity, democracy, well-being and equality. At one level, the evidence is in the establishment and activities of the United Nations and its agencies, and at another in bodies in Europe – such as the Council of Europe and the European Union (EU). These developments represent a pooling of national sovereignty to secure a sounder basis for national prosperity, in reaction to the experience of war in previous decades.

Within countries, the same period has seen an increasing focus on regions. This trend is driven in part by a desire by central governments to strengthen and stimulate local initiative and in part by demands from old or emerging regions for more autonomy. Sometimes, but not always, new regional structures also strengthen local democracy. The common element everywhere seems to be the need to ensure balance in order to avoid concentration of power in the centre and acceptance of the need for new approaches to economic and political challenges that cannot be adequately managed through decision-making concentrated at one central point.

The regional voice has been strengthened through the development of international cooperative bodies. In 1994, the Council of Europe established the Congress of Local and Regional Authorities of Europe, whose function is “to strengthen democratic institutions at the local level, and in particular to assist the new democracies”. In 1997, the Congress adopted a Charter of Regional Self-Government to complement the Charter of Local Self-Government adopted in 1985, the same year in which the Association of Regions in Europe was founded. Another body, the Council of European Municipalities and Regions, links regional associations across Europe, taking among other

roles that of acting as an advocate for these with the EU institutions.

The EU has also fostered the development of a regional tier through its economic development processes and support for applying the principle of administrative subsidiarity. This process will accelerate and deepen as more countries become interested and engaged in the process of joining the EU. Within the EU, the Committee of the Regions has acquired greater significance since 1999, and health is one of its fields of competence.

In the development of regions, two processes are occurring simultaneously. One is the greater interest in how best to stimulate improved economic performance. The other is the development of new intermediate administrative structures below the national level but above that of the town or city. The relationship between these two – regional administrative change and economic development – is neither stable nor well defined. The integration of regional administrative and economic capability offers a basis for policies that can simultaneously promote both health and wealth.

In addition, the strategic role of regions also offers the basis for bilateral and multilateral collaboration within countries and across borders, whether to help manage issues across shared international borders (Euregios) or by addressing broader common interests or problems, such as promoting the common development of standards, innovation, information system, arrangements and the like at the regional level.

## Health and the regions

The health of populations in different regions differs markedly within Europe. A WHO survey of subnational patterns of mortality comparing regions for the years 1980–1981 and 1990–1991 found that “the variations between regions with a country are frequently larger than those between countries” (1). In some countries, such as the United Kingdom, geographical variation in health

experience has long been studied, but the extent and nature of this work has depended on national priorities and academic interests. Recently, as will be seen, interest in systematically monitoring health differences and trends at the subnational level has been greater.

Powerful regions are potentially attractive and important contributors to improving health. In the past century, the focus on improving health has oscillated between a focus on health care services as the main answer and a search for the causes and solutions to health problems in how society is organized. WHO has developed a very broadly based health promotion approach over the years, such as that set out in the Ottawa Charter on Health Promotion, with five components:

- building public policy
- developing personal skills
- strengthening community action
- reorienting health systems
- creating supportive environments.

It is now recognized that a comprehensive health strategy must include both good health care services and a very broadly based health

promotion approach. As regional policies and institutions within countries are strengthened, the regional tier is acquiring more potential to exert its influence in both of these areas. The WHO Health for All approach, which in Europe resulted in the adoption of a common health policy in 1980 and a set of common health targets in 1984, was aimed primarily at national governments, since WHO works at the national level as a specialized agency of the United Nations. Countries differ in their internal organization, and several already had or have acquired the capacity to develop their own health strategy. Strategies have been developed within several countries (2).

A recognition of the potential role of subnational bodies to drive health improvement has led to the creation of both the WHO European Healthy Cities Network and the Regions for Health Network in Europe. The WHO European Office for Investment for Health and Development and the WHO European Observatory on Health Systems and Policies have promoted and studied action at this level and at the national level. The Observatory has published important studies on the nature of decentralized health systems (3).

## 2. THE RELATIONSHIP BETWEEN HEALTH AND WEALTH AT THE REGIONAL LEVEL<sup>1</sup>

Considering the opportunities for investing in health requires establishing where investment should be undertaken, how much should be invested and who should invest and pay. However, these questions are difficult to answer, as both theoretical work and empirical evidence is lacking.

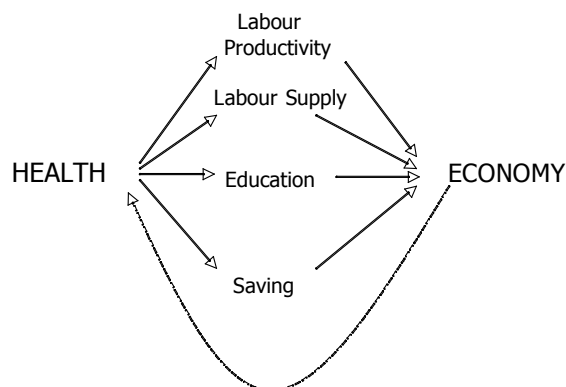
Health has long been seen as a byproduct of economic development, and the focus for investment has therefore been the economy itself. Much of the research has therefore looked at the relationship between health and economic growth, mainly focusing on low- and medium-income countries. Only relatively recently has there been research on the importance of human capital for economic growth, and there the main interest has been in education. An indication of how recent the change has been is that it was only in 1993 that the World Bank's *World development report: investing in health* (4) appeared. Although there have been more studies since then, the landmark WHO Commission on Macroeconomics and Health (5) also mainly focused on low- and medium-income countries.

What evidence is there for the value of investment? One focus has been the cost of illness. Its importance in terms of both the direct cost, including loss of productivity, and the cost of treatment is undoubted. The cost is higher in countries with higher income.

There is also evidence relating to the macroeconomic effect (the effect on the national economy), but the results are not definitive. The historical contribution of health to economic development has been high. Based on studies of the United Kingdom suggesting that 30% of growth had been due to improved

health, an estimated 30–40% of today's economic wealth has derived from health improvement. The findings of Beraldo et al. (6) have suggested that improving health has had a greater impact on growth than education in some cases. Cross-country studies suggest that a one-year increase in life expectancy corresponds to a 4% growth in gross domestic product (GDP) and that, for high-income countries, a 10% decline in cardiovascular mortality has triggered a 1% rise in GDP.

There are three types of argument regarding the microeconomic effects (effects at the individual and household levels). The first relates to labour productivity, labour supply, education, wages, earnings and savings. The second relates to the impact on retaining and attracting employees and, although there is little evidence to date, it is an important issue given the ageing of the population. If the health system is poor, people will try to move away to where prospects appear better. A third issue is the role of the health care industry as a driver for employment, innovation and growth.



*Fig. 1* suggests how health might influence the economy through its effect on labour productivity and supply and on education and savings. Quite good evidence indicates that better health leads to more work being done. Poor health, in contrast, has been shown to lead to early retirement and can affect the availability for work of relatives of those in poor health. Strong evidence supports the links between education and health, but the impact on saving is not so strong.

<sup>1</sup> This section is based on a presentation to the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by François Decaillet, Senior Adviser and Representative to the European Union of the WHO Regional Office for Europe.

Overall, the evidence suggests that a well-nourished, healthy, educated, skilled, alert labour force is the most productive asset, and that this is especially true today and for Europe in a globalized world, with changing patterns in the economy and an ageing population. This suggests a strong case for generating more evidence, and especially more directly European evidence, establishing both the economic rationale for government intervention and the cost-benefit basis of intervention (especially in relation to disease prevention). *The contribution of health to the economy in the European Union (7)* is a key text.

### 3. USING HEALTH SYSTEMS TO GENERATE WEALTH IN REGIONS

#### The example of North Rhine–Westphalia<sup>2</sup>

Considerable thought has been given to the relationship between health and wealth in North Rhine–Westphalia. The established view has long been that health care is a social and political duty of government. Bismarck (in Germany) and Beveridge (in the United Kingdom) aimed, by creating social safety nets, to avoid political turmoil, improve human capital and meet the obligation to provide support to the population. But what does this mean now for regions?

Since many people consider health a basic social right and the public has expectations about health and often expresses them, regions that clearly respond to the health agenda are likely to win the approval of their citizens. Further, well-performing health care systems contribute to strengthening the regional economy, and the health sector has inherent economic potential. Health expenditure should therefore be seen not as a burden on the economy but as a motor for development, especially in relation to high technology.

The health sector in this view extends far beyond hospitals, doctors and nurses. Many other services and activities revolve around the core of health service providers. Accordingly, many organizations can look for a market opportunity, such as developing health tourism or healthy housing. There are already about 4.5 million people in Germany working in this sector, compared with about 1 million in the motor industry. The sector's turnover in Germany is €250 billion per year, about the same as the motor industry. This is the most promising sector for future development and the most rapidly growing sector globally. The main

<sup>2</sup> This section is based upon presentations to the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by Josef Hilbert of the Institute for Work and Technology (IAT) at the University of Duisburg/Essen in Gelsenkirchen and by Uwe Borchers, ZIG OWL (Centre for Innovation in the Health Economy), in East Westphalia-Lippe.

drivers are ageing, technological development and people's willingness to pay more to protect and develop their own health.

Healthy people are key to a productive economy. Health has links to individual and social security, and to learning capacity and employability, with these latter being especially important in the knowledge economy now developing. These links also provide incentives to invest in individual well-being.

A weak health care system leads to poorer health deficits; a strong system has significant economic benefits. These include jobs, a demand for a broad set of skills, opportunities for local procurement and reducing poverty by improving access to health care and improving employability.

Health care is not just a precondition for economic development with positive economic side effects. In high-income regions, the health system is the biggest job provider and a hidden champion of structural change. In North Rhine–Westphalia, it has created over 1 million jobs in the past two decades. Health is ranking higher and higher in people's preferences. It is the main field for modern high-technology applications, with some 50% of innovation in nanotechnology, biotechnology and microtechnology being health-related.

Health products and services are expected to become the world's biggest growth industry during the next 20 years. Against this background, a paradigm shift is occurring, with health no longer being seen as a drag on the economy but rather as a self-sustaining and dynamic sector of industry.

A focus on health should not weaken other parts of the economy. The international market for life sciences, health service design and medical expertise is strong and developing. High-performing health regions should be able to seize the opportunity to join this market and enter into international cooperation and exchange. Even weaker regions have a chance to make progress through targeted cooperation with regions that are advanced in medical technology.

The attraction of regional investment in health is that it integrates social rights, duties and responsibilities with the dynamics of a self-sustaining sector of industry, achieving powerful synergy. Health expenditure must not be considered or allowed to be a burden on the economy; rather it should be used to create a multiplier effect and a stimulating impact on the economy, acting as a driver of technology, private consumption and exports and as a job generator. In this way, the traditional welfare state could mutate into a change agent in a modern economy.

Regions could have a major role here. The regional level can provide innovation. Collaboration at the local level is the basis, with caregivers, professions and others involved, and perhaps major commercial companies. Regions are capable of self-organizing as drivers of change but need help from governments and European bodies and may need to work together.

North Rhine–Westphalia is already building a strategy to make this happen. The economic rationale is that new jobs have been created in the health care industry, particularly in the sectors where structural changes have led to job losses in recent years. More than 1 million people are working in the sector, and an increase of up to 200 000 additional jobs is anticipated by 2015. The objective is to make North Rhine–Westphalia a leading region in the health care industry in Europe and beyond. The programme is based on five priorities.

- A state-wide competence centre for the health care industry has been established, bringing together skills and competencies from the government, companies, research institutions and organizations in the health care system.
- Using the well-established concept of clusters as a means to contribute to establishing highly competitive associations within a value creation chain, a regional cluster of interconnected companies and associated institutions has been formed for the health care industry and

application-oriented medical technology, the first in Germany and by far the biggest in North Rhine–Westphalia.

- A competition has been launched within the framework of North Rhine–Westphalia’s cluster policy to discover the best ideas for an innovative health care industry.
- Regional health care industry structures are being set up in the five very different subregions of North Rhine–Westphalia, allowing each to create an image for itself as a health region with its particular strengths, based on agreements made in local conferences, comprising the relevant local bodies.
- Lead projects will show what cooperation between the health care sector and industry could look like in practice, such as one on telematics infrastructure for health care.

For example, the cluster of East Westphalia–Lippe has lost jobs in recent decades as the economy changed but gained jobs in the health care sector and had very solid foundations for development that could both improve health care and support economic growth. These include:

- modern health care based on state-of-the-art medicine;
- a strong tradition of science and research, education and basic and further training;
- rehabilitation and disease prevention facilities including 21 of the 42 health and wellness spas in North Rhine–Westphalia;
- a strong telemedicine and e-health infrastructure;
- well-developed university life sciences programmes already using spin-offs to contribute to setting up a wide variety of industrial businesses;
- services linked to older people’s accommodation, the driving force being the local and cooperative housing societies; and

- links across health, wellness and tourism, exploiting the highly attractive landscape and existing health infrastructure and the growing interest in fitness, spas, beauty and lifestyle.

The subregion has many leading companies in health care and social work and, together, all these elements offer a very strong basis for economic development in relation to health and well-being. A development agency has been set up with more than 30 partners, and the Ministry of Health of North Rhine–Westphalia has established an agency to support economic development in this sector across all the subregions of North Rhine–Westphalia.

### Linking health and regeneration – North East England and Health ClusterNET<sup>3</sup>

North East England is the smallest region in England, with a population of just over 2.5 million. With a history of primary industries and engineering, such as coal mining, steel production and shipbuilding, the region has struggled with deindustrialization. In both health and economic activity, North East England ranks poorly among regions in England on most indicators, despite substantial improvement in recent years.

In about 2000, the United Kingdom Department of Health began looking at the opportunities for developing health and economic activity in parallel through joint work at the regional level. This responded in part to the creation of regional development agencies in 1999, whose role was to lead a regional focus on economic development, primarily through a regionally developed and owned regional economic strategy.

After the King’s Fund (a health services research centre) published *Claiming the health dividend (8)* in 2002, a study was undertaken to identify the contribution of the National Health Service (NHS) to the regional economy in North East England. A

<sup>3</sup> This section is based upon a presentation to the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by Tony Batty of the United Kingdom Department of Health.

simple framework was developed in relation to the economic aspects of health and wealth, looking at:

- health and work: the importance of having a healthy population as an input for economic activity;
- work and health: the role of employers and the workplace in promoting and improving health; and
- the NHS as an economic entity.

In 2003, a small regional project began on maximizing the contribution of the NHS to the North East England regional economy. Building from this, two years later, a European collaboration, Health ClusterNET, was approved. Health ClusterNET was an EU INTERREG IIIC project operating under the network model. It comprised 13 regional partners from 12 European countries, ranging from universities to regional governments. ONE NorthEast, the regional development agency for North East England, acted as the lead partner for the project.

Total project funding was just over €1.5 million, including €0.96 million funded through the European Regional Development Fund and individual partner funding ranging from €15 000 to €182 000. It began on 1 April 2005 and ended on 31 December 2007.

The overall aims of the project were:

- to share examples of policy development and good practice relevant to the four Health ClusterNET knowledge themes: local procurement, inclusive employment, capital investment and managing innovation;
- to identify and sustainably exploit regions' potential, increase engagement with their own health and economic systems and strengthen regional policy and planning in the four selected areas of collaboration;
- to ensure durability by achieving recognizable results and disseminating them publicly;

- to strengthen regional administrative capacity in order to maximize the value of regional assets; and
- to influence policies and other instruments at the regional, national and EU levels based on insights developed by Health ClusterNET.

The four knowledge themes were chosen after an analysis of public sector health care expenditure by the NHS in North East England identified them as the major expenditure areas, which therefore had the potential to have the greatest effect, to a greater or lesser extent, on the regional economy for all European health care systems. They fit closely with regional economic drivers (productivity, entrepreneurship, a skilled workforce, a knowledge economy, infrastructure and community regeneration) and were consistent with the Lisbon Strategy of the EU.

The project adopted a modular approach to each of the themes, which ran broadly consecutively during the project. For each theme, there was first a workshop, where regional representatives presented examples and case studies of relevant activity in their region. Network partners were then encouraged to discuss as widely as possible within their region what they had seen and learned at the workshop. At a further meeting, described as a policy forum, the regions discussed and reviewed each other's feedback and experience as a way of identifying and agreeing on key issues and developing policy recommendations.

From this emerged four policy agendas, one for each theme and each named after the hosting region. These agendas were made available to policy-makers at the regional, national and EU levels. The following identifies some of the issues for each of the four knowledge themes.

- On procurement, addressed in the Bilbao Agenda, considerable differences were found in defining "value for money" across the network and the EU, ranging from the lowest cost to delivering organizational goals; one interesting

approach developed in the United Kingdom was the Local Multiplier 3 (LM3) model, which aimed better to represent the value of goods and services to the local community.

- On capital investment, addressed in the Graz Agenda, an issue was the need for better coordinated intersectoral integrated planning on capital schemes, which could substantially improve benefits to communities, particularly regarding services and regeneration.
- On inclusive employment, addressed in the Pécs Agenda, a need was recognized for better-coordinated intersectoral information on human resources planning, to help providers of training to ensure that the labour market better reflects the skill needs of the region.
- On managing innovation, addressed in the Liverpool Agenda, a need was identified for health care organizations to work with business development agencies in the transferring and exploiting intellectual property, to improve the health services provided and to create dynamic local and regional business communities.

The complete policy agendas are available on the project's web site (<http://www.healthclusternet.org>), along with regional case studies and a wide range of supporting resources. The network is also developing a wider consumer guide that will include tools offering practical help to regions.

Lessons from the project include the following.

- All regions contain health sector assets that could support regional economic growth and social cohesion; these often need to be viewed from a slightly different perspective.
- Leveraging these assets effectively requires looking beyond institutionally and professionally defined policy fields.
- The skills and experience needed might not be those currently the focus of investment; institutions and professions need wider strategic understanding of the health and wealth agenda and managers and policy-makers need to be

encouraged to work outside their traditional areas.

- No single approach is valid for everyone; evidence, policy and action might be better framed through either common foundations, in which regions have similar systems, or regional clusters, in which there is shared development and thinking.
- The approach has helped develop evidence that investment in one area could influence other sectors and helped health sector managers better understand how health care can contribute to achieving broader policy objectives.

Health ClusterNET has been invited to join a working group co-hosted by the European Commission and the European Health Management Association to develop a coordinated approach to health sector investment and the agenda of the EU Structural Funds. Health ClusterNET will continue as a not-for-profit paid membership network, supporting its members and undertaking funded projects and wider policy activities across Europe.

### Investment for health to tackle inequity in health in North West England<sup>4</sup>

The Government of the United Kingdom sets national health and health service policy and public service targets in England. At the local level within North West England, these are implemented through local strategic partnerships for each major sector, including health. Over many years, the investment for health concept brought together several policy objectives – the WHO Health for All agenda, reducing inequality in health, action to reduce the demands on the health and social care system, sustainable development, regional economic regeneration, social exclusion, neighbourhood renewal, local government reform and community well-being. The economic sector has increasingly been attracted to this developing agenda. The *World development*

<sup>4</sup> This section is based on a presentation to the 14th Annual Conference of the Regions for Health Network in Europe in 2006 by Dominic Harrison, Deputy Regional Director for Public Health in the North West Region of England in the United Kingdom.



report 2006 (9) pointed out that equity was an essential prerequisite for development.

In 1999, the North West England region issued *Health: a regional development agenda* (10), and this led in 2003 to the publication of *Investment for health: a plan for North West England/Draft Action Plan*(11), which was updated in 2004. Continual changes made a fixed long-term plan unviable, and so the approach aimed at identifying and implementing the health improvement dimension of all policies alongside developing and applying health and integrated impact assessment. The focus for the health investment plan was health, disease prevention and inequality, aligning strategies and targeted investment with short-, medium- and long-term objectives aimed at tackling the wider determinants of health, exploiting the health service contribution to achieving wider regeneration and sustainability objectives, mainstreaming action on inequality within health services and strengthening primary care. Implementation involved several agencies, including the health services and local government.

In support of a new government policy for improving health, *Choosing health* (12), action was planned across three areas – research, evidence and information; systems for local delivery; and workforce capacity and capability. North West England led a project on applying the investment for health approach in developing health policy at the regional level, working with the WHO Centre for Investment for Health and Development in Venice and with Tuscany, Veneto, South Bohemia, South Moravia, Liberec, Västra Götaland and Mura regions.

A framework for policy evaluation clarified the health policy process and developments supporting investment for health and analysis of the local public health systems. This allowed an evaluation at the strategic levels of barriers, system characteristics, infrastructure and tools in relation to policy, capacity and delivery, to identify development issues. This, in turn, supported guidance that would address

the development of health policies, priorities and programmes across sectors; building systems for delivery; and building capacity and capability in terms of research, evidence and information and of workforce development.

The EU Lisbon Strategy says that Europe needs to increase investment in human capital, since productivity and competitiveness depend on a well-educated, skilled and adaptable workforce. Health and health care must play a key role in generating social cohesion, a productive workforce, employment and hence economic growth.

In the United Kingdom, the Wanless reports (13,14) assessed the engagement of the public with its own health and identified three future scenarios for health – slow uptake; solid progress; and fully engaged. The last of these foresaw high levels of public engagement with health issues, a health service responsive to the public, especially on disease prevention, and more efficient use of resources, and would result in lower costs in the longer term than the other scenarios. Implementation would necessitate sharp clarity about priorities and accountabilities both in and outside the health service and improved incentives, performance and inspection.

In the United Kingdom, secondary care comprises 50% of health service costs, and 60% of this is on long-term or chronic disease. The investment for health work aims to prevent this disease and treat it outside the secondary care system where possible.

The NHS, itself a major employer and a major business in virtually every locality, has a significant role in tackling inequality and addressing regeneration by investing in staff and assets, purchasing services and developing and regenerating local economies. In North West England, the public sector accounts for nearly half of gross domestic product, and the health and social care sector directly employs 340 000 people. It could use its power better to strengthen the economy, support marginalized

groups, reduce waste and reduce avoidable transport of goods from other areas. Improving its ability to prevent, detect and treat illness effectively could provide huge potential benefits to the economy and community. For example, failure effectively to deal early with depression in children can result in economic costs that are 10 times higher later. The region has close correspondence in the geographical distribution of measures of social cohesion, health and economic capacity such as skills. A great deal of valuable evidence has been published in *Good corporate citizenship and the NHS – a regional mapping* (15), a survey of regional health policy developments in nine regions of England.

Health is a metaphor for or the embodiment of social justice, and a strong link to market mechanisms is needed to develop population health. The business case for investing for health as an economic development strategy is increasingly strong. Partnership with economic development agencies and with budget managers responsible for economic development at the regional and local levels is essential, and creating joint posts can powerfully stimulate integration. He concluded with a quotation from McKnight & Kretzmann (16): “Communities have never been built upon their deficiencies. Building community has always depended upon mobilizing the capacities and assets of people and a place.”

The region of North West England is planning to recommission an economic impact assessment of the whole system opportunities and assets, which will feed into the proposed new “single regional strategy” review currently underway in each region of England as part of the subnational review. One extra element considered important is the issue of well-being as a regional product, and North West England is therefore looking to see whether there is a way to scope the cumulative economic opportunities (also outside the health sector) for making visible the wider economic opportunities for the region in branding well-being.

As a region experiencing some of the lowest life expectancy in England, North West England is very focused on the challenge of reducing inequality in health. Recent research has confirmed the potential virtuous circle available to regions in addressing inequality in health as an issue of economic development and public sector efficiency.

As an independent factor, inequality in income at all levels of European governance is a major driver of poor health and well-being outcomes. The drag on EU economies of the corrective investment in health and welfare systems required to compensate for the social consequences presents a major avoidable cost to the EU economy. Research in 2007 concluded the following (17).

*On the basis of currently observed patterns of mortality by educational level, the number of deaths that can be attributed to health inequalities in the European Union (EU-25) as a whole is estimated to be 707 thousand per year (all figures apply to 2004). The number of life years lost due to these deaths is about 11.4 million. Similarly, the number of prevalent cases of ill-health that can be attributed to health inequalities is estimated to be more than 33 million. The estimated impact of health inequalities on average life expectancy at birth in the EU-25 for men and women together is 1.84 years, and the estimated impact of health inequalities on average life expectancy in good health is 5.14 years.*

*Our estimates suggest that the economic impact of socioeconomic inequalities in health is likely to be substantial. While the estimates of inequalities-related losses to health as a capital good<sup>1</sup> (leading to less labour productivity) seem to be modest in relative terms (1.4% of GDP), they are large in absolute terms (€141 billion). It is valuing health as a “consumption good” which makes clear that the economic impact of socioeconomic inequalities in health is really huge: in the order of about €1000 billion, or 9.5% of GDP. The separately calculated*

*impacts on costs of social security and health care systems and healthcare support these conclusions. Inequalities-related losses to health account for 15% of the costs of social security systems, and for 20% of the costs of health care systems in the European Union as a whole. It is important to emphasize that all these estimates represent yearly values, and that as long as health inequalities persist, these losses will continue to accumulate over the years.*

In addition, research (18) suggests a strong correlation between equality in income and children's well-being and that improvements in children's well-being in high-income societies depend more on reducing inequality in income than further economic growth.

The implications of such research have been confirmed at the regional level. For instance, in North West England, 26 health and well-being indicators known as community health profiles were analysed in 2007 across the region's 43 local authorities. More than 80% of poor performance on all health and well-being indicators was associated with below-average gross value added per capita income levels at the local authority level.

The key message from this and other research is that strong evidence indicates that reducing inequality in income across the EU may bring improved health and well-being outcomes, which in turn will both reduce corrective expenditure on health and social welfare systems and, in contributing to improved human capital, will create higher levels of labour market productivity, thus increasing overall economic development. Public health becomes evidence-based economic development.

### **The good life in Västra Götaland<sup>5</sup>**

Region Västra Götaland has adopted a vision that picks up on Aristotle's theory of the good life for every citizen. Vision Västra Götaland – the Good Life has strong political backing, and the framework

for the vision comprises the well-known three dimensions of sustainable development: economic, ecological and social.

The region is doing quite well economically. Economic growth is reasonable, and most residents have shared the gains. There are no major local environmental threats, but global warming is a growing concern for the public and politicians.

The concerns relating to the social dimension are greater. For example, although the overall level of prosperity is high in the region and among citizens, socially and geographically inequality is also growing. Unemployment has decreased but is still too high, especially among young adults and in certain parts of the region. The risk of premature mortality differs and depends on socioeconomic position or where people live. In the worst-off areas, the mortality rate in 2005 from all causes among people aged 1–74 years was about 800 per 100 000 for men and 400 per 100 000 for women, whereas in the most affluent areas these mortality rates were about 300 per 100 000 for men and 150 per 100 000 for women. Thus, municipalities in the region differ very significantly.

The approach adopted in the region is based on a strong body of evidence on how to intervene. Whitehead (19) suggested four elements of a strategy to reduce inequality in health that could be used to describe the region's programmes. The first part is adopted by most public health authorities and aims at affecting people's lifestyles. Programmes to reduce smoking and binge-drinking have long been implemented. The second part of the strategy is about improving residential areas, especially the areas that are more deprived. Programmes aiming at improving the physical environment in such areas are quite common today. The number of initiatives aiming at influencing people's opportunities to interact with each other is increasing. Such community action programmes are implementing ideas founded in theories of social capital, social support and networks.

<sup>5</sup> This section was provided by Göran Henriksson, Senior Public Health Adviser in the Västra Götaland Region.

The third strand is about improving physical working conditions as well as psychosocial aspects. Whereas the former has quite a long tradition in the region, the latter has expanded since the 1980s with a focus on people's level of control, support and demands in the workplace. The fourth part of the strategy is about making informed policy decisions. This clearly addresses how society is organized and how living conditions are improved. This might be politically the most challenging part but is perhaps also the most promising.

In addition, the approach is influenced by the accumulation of evidence that poor health is not simply the action of genes and germs but is profoundly influenced by people's position in society. The full extent and implications of this have not yet been understood, but several important themes have emerged that are closely related to economic development issues:

- the consequences of life-long experience from growing up under socioeconomically deprived circumstances, which will hamper opportunities for good health (20);
- inequality in health, with evidence from a growing number of research reports concluding that there is a social gradient in health strongly related to the unequal distribution of social determinants for health (21);
- the level of population health affects the rate of economic growth and economic growth might influence population health (7,22); and
- inequality in health has significant societal and private sector costs that reduce societies' ability to invest (23).

### **The health system of Catalonia: from federal management to political federalism<sup>6</sup>**

In 1981, the process of transferring health competence in Spain from central to regional

governments started, and Catalonia was the first autonomous community to undertake this process, largely due to its long experience in health. In 2001, the process of transferring health competence was completed and extended to all the autonomous communities.<sup>7</sup> The extension of the model contributed significantly to the process of constructing a federally oriented state in Spain.

Data show that health federalism – a decentralized health model – guarantees equity, quality and efficiency in the health system. The convergence in per capita health expenditure and the growth in total health expenditure as a percentage of GDP (from 6.5% in 1990 to 9.2% in 2005) are some indicators of the system's benefits. The variation coefficient of health care expenditure per capita also indicates the efficiency of decentralization. Spain has very low variation: in 2007 its value was 0.021, contrasting strongly with 0.15 for the United Kingdom and 0.12 for France.

The effectiveness of the model in terms of equity is proven by indicators such as the life expectancy in Spain (74.4 years for men, 81.6 years for women), which hardly varies across the autonomous communities of Spain.

Among the population, the predominant view is that Spain's health care system improved between 1995 and 2006. According to a public opinion poll carried out by the Ministry of Health and Consumer Affairs, the percentage of people who consider that the system "works well but would need some changes" has increased from 41% to 51%, and the percentage of people who consider that it "works poorly and really needs to be improved" has declined from 10% to 4%. In short, the level of public satisfaction has increased, rising from 5.94 (of 10) in 2002 to 6.23 in 2006.

Moreover, Spain shows a high effect of health care expenditure on boosting the economy similar to such countries as Sweden and much higher

<sup>6</sup> This section is based on material provided by Enric Mayolas Ferrer, Head of European Affairs, CatSalut, the Catalan Health Service, Catalonia.

<sup>7</sup> In 2007, the Autonomous Communities of Asturias, Cantabria, La Rioja, Castilla-León, Aragón, Madrid, Castilla-La Mancha, Extremadura and Murcia and the Illes Balears assumed health competence.

than the United Kingdom or France. It appears, therefore, that Spain's decentralized health care system has resulted in an efficient system, with high added value and with some of the best results in the world in terms of health status.

Further, the health care sector is a source of wealth, economic growth and social cohesion. In Catalonia, the results are especially satisfactory. The latest available data (2007) show that the health care sector generated 5.1% of the GDP of the autonomous community, with a multiplier coefficient for production of 1.31, which means that an additional €1 invested in the health care sector generates a global effect of €1.31 in production, which is higher than for other sectors such as education, social services or the general public sector. Each €1 invested in health adds value of €0.86 to the economy, much higher than the global average of €0.66m. Moreover, the health care sector generates 6% of the employment in Catalonia and 5.9% in Spain as a whole.

In this sense, the Government of Catalonia is working to promote the health care sector also as an economic sector. As a result of this interest, stakeholders of Catalonia's health care system have signed the Strategic Agreement to Promote the Internationalisation, Job Quality and Competitiveness of the Catalan Economy. The goal of this Agreement is to achieve a greater impact on the international health care market. The latest evidence estimates, for instance, that Catalonia had income related to health care and pharmaceutical congress tourism of about €242 million last year.

The initial focus was who was responsible for what. A second stage, now reached, is to focus on improving the established system. Some key aspects of Catalonia's health care system include the need to continue reinforcement, such as the process of innovation in primary care or the process of modernizing public health. Moreover, the need for a new model of funding for Catalonia is increasingly evident, since the current one does

not correspond with the level of decentralized competence in Catalonia.

One element of this for Catalonia is a reform of the public health system.

The Wanless reports from the United Kingdom (13,14) state that the future sustainability of the health care system depends on increasing productivity. To achieve this increase in productivity, Wanless proposes, among other things, substantially increasing investment in public health. Public health means the concerted effort by public authorities and by society as a whole to mobilize personal and material resources in order to protect and promote the health of people, in the individual and collective sphere, to prevent illness and to carry out epidemiological vigilance.

Unfortunately, despite the existing evidence on how interventions in public health improve individual and population health, the health care system provides great resistance to adapting objectives, structures and policies (and, therefore, expenditure) that more strongly emphasize public health. The reform of public health in Catalonia could be a good opportunity to demonstrate more flexibility in reorienting the economic resources of the health care system towards this purpose.

Public health services include measures of regulation, enforcement, incentive and sanction that affect many agents in society. Given the considerable importance the population places on staying healthy, public authorities must respond, taking on significant regulatory and legal power.

To make progress most effectively, active civic participation is required, not only through political representatives – which is of great importance – but also via the associations and entities of civil society that contribute knowledge and experience to resolving public health problems. This is a key philosophy in the public health reform (including a new law) and the creation of the new Public Health Agency of Catalonia (ASPCAT).

The Public Health Agency of Catalonia will have responsibility in all of these functions and will need to have political backing in which collaboration between the Government of Catalonia and local governments will become essential and fundamental. It is crucial that the city councils, which already have considerable responsibility in areas of public health, can count on the technical support of the Agency in resolving problems of public health in Catalonia and can be co-participants and share responsibility for their management. Unfortunately, the city councils – the level of government closest to the citizen – have been the public entities with the least resources to resolve the problems of public health they face, a situation even further accentuated by the small percentage of public health care funds that has historically been allocated to public health. This requires significant change. According to data from the Health Information System of the National Health Service, only 0.1% of public health care expenditure in Catalonia was allocated to public health services in 2001. The average figure in the 15 countries that were in the EU before 2004 is about 3%. This deficiency is being rectified.

The Public Health Agency of Catalonia responds, fundamentally, to the widely shared need to reform the organization of the public health services of Catalonia. The Public Health Agency of Catalonia will also be able to support CatSalut, the Catalan Health Service in matters of planning and other areas such as management, defining health policies and the strategic direction of public health.

The success of health system decentralization has fed a wider debate about the federal state model for Spain. Changes could rectify dysfunction generated by the current global model of health care funding. Currently, the federally oriented health care system in Spain enables autonomous communities to learn from the successful experiences of others: Andalusia (for example, in pharmacy management), Aragón (for example, in its advances in rural medicine), Navarra (for example in transplant management), Balears (for dealing with the issue

of alternative therapies), Valencian Community and Galicia (especially in innovation management) or the Basque Country (with excellent strategies for research and innovation).

Creating mechanisms of real participation for the autonomous communities would require reforming the Senado de España (Senate). Moreover, the autonomous communities would be able to participate in the decision-making process at the international level, having more direct interaction with the rest of the world, indispensable in the current context in which EU decisions directly affect regional competence, for example in protection of the environment, public health and the protection of health. The EU has generated changes that affect regional health care systems, such as free movement of workers (mobility of health professionals) and the future European framework for higher education, which will involve higher mobility of university students and will generate a reform of higher education at the regional level.

The Constitution of 1978 is the basis of the federally oriented state. Spain faces the challenge of multiple social transformations and the need to progress towards a more federal political framework for Spain. Catalonia has already promoted the introduction of federalist elements (such as the new Autonomy Act), which defines Catalonia's political horizon.

Catalonia's health model is based on the values of efficiency, quality and equity. The health care system must ensure equitable access to an efficient system, and it must guarantee high technical and perceived quality of health care services. Further, the health care system must deal with external factors that affect how the system works, particularly demographic trends (such as ageing and immigration) and technological innovation.

In order to deal with the new socioeconomic framework, Catalonia's new health care system identifies six principles of action:

- decentralization towards regional health care authorities (city council-oriented decentralization);
- more cooperation among health care providers;
- a more transversal and integrative perspective in health care services;
- financial sufficiency to make the model sustainable over time;
- reinforcement of health-oriented planning tools; and
- more investment in innovation.

As a result, CatSalut, the Catalan Health Service, has initiated four lines of action: modernizing the health care administration (reinforcing management autonomy), implementing public health reform, improving health care services and investing in the quality and excellence of the health care system.

### **The Veneto Region – a multisectoral approach to providing health and social services<sup>8</sup>**

Veneto is situated in north-eastern Italy and is divided into seven provinces. It covers 18 380 km<sup>2</sup> and has 4.7 million inhabitants. During the past 35 years, the population has increased by more than 600 000, at an average rate of increase of 0.4% per year. It is characterized by a low birth rate and a substantial population of older people, with 18.5% of the population older than 65 years versus the EU average of 14.1%.

The Veneto Region Health System aims to satisfy the needs of the resident population to maintain health and well-being and to ensure essential health care within a decentralized regional health care system. An important feature is the integration between health and social services to improve the quality of health care, both within the hospital network and outside. The hospital network comprises 52 public hospitals, which are part of the 21 local health

units, and two hospital trusts in the cities of Padua and Verona, where there are two university schools of medicine.

The Veneto Region, in compliance with national law 328/14 and Article 34 of Legislative Decree No. 28 of 25 July 1998, is taking a multisectoral approach, promoting initiatives for older people and other vulnerable population groups, and for the inclusion of immigrants in housing, work, education and professional training support. Immigrants with regular residence permits in Veneto have the same rights as Italian citizens to health services, and illegal immigrants have access to essential health care and emergency treatment: in the latter case, use of health care facilities is not communicated to police authorities.

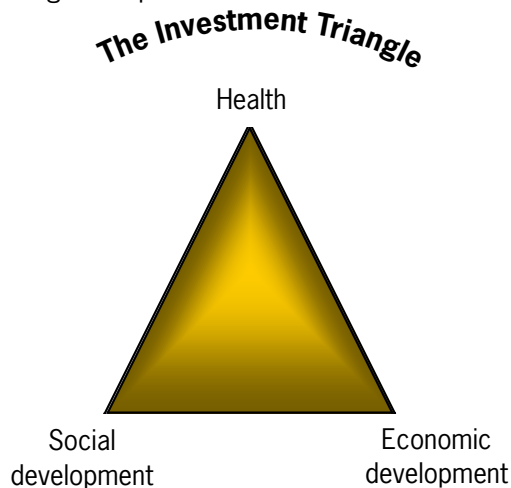
Health and social integration in Veneto is based on the activities of health and social districts. Across the region, these provide and coordinate the response to health demands from first-line social and health services and hospital services. The Framework Law for the achievement of the integrated system of social measures and services of 8 November 2000 with a view to implementing a more integrated system of social interventions and services provides for a wide range of interventions aiming to address the needs and difficulties of users. It also stipulates that the 582 municipalities should be the main suppliers of these social and health care services.

From an economic viewpoint, the Regional Territorial Coordination Plan highlights the fact that Veneto has, over the years, developed in several ways: its demographics and housing have changed and its production structures have expanded. This has created a dense, continuous metropolitan area with principal hubs in the provincial capitals and along the route linking Venice, Padua and Verona. This rapidly expanding sprawl encompasses residential districts, production facilities, crafts clusters, management offices and large and small commercial buildings. In 2005, the most recent year for which official figures are available, data

<sup>8</sup> This section is based on material provided by Luigi Bertinato, Director, International Health Social Affairs Office department of Health Social Services, Veneto Region.

show that Veneto, with a figure of 9.3% is third in the regional rankings for the production of national wealth after Lombardy (20.9%) and Lazio (10.9%). Employment in Veneto has increased by 2% compared with the previous year and by well over 18% since 1995. A significant contribution came from the foreign population.

Veneto's economy has been based on a high proportion of small and medium-sized and family-based companies that enabled Veneto to move from poverty after the Second World War to what was called the Italian north-eastern economic miracle in the 1980s – just the mention of names such as Benetton, Aprilia, Stefanel, Diesel and Danese flags the extent of the phenomenon. This economic development created added value in health and social development, way beyond the building of hospitals.



The investment for health triangle (Fig. 1) derives from the Verona Initiative, hosted in the Region between 1998 and 2000, which built on the links between prosperity and health.

Since 2001, the Italian state has been responsible for defining the national health plan and essential levels of health and social care provision guaranteed to all Italian citizens. Veneto and Italy's other regions are responsible for public health, health care and social services. They can include additional services (such as dental treatment) in the basket of health and social services. In Veneto,

the responsibilities of the regional government in the health and social sector are complemented by social services responsibilities of the 582 municipalities in the Region. Both have the right to allocate funds and to approve regional and local legislation for vulnerable population groups.

Below are listed the main vulnerable population groups being targeted through the joint efforts across the health and social sectors of the Regional Government, its 21 local health units and the 582 municipalities. Community health plans are jointly approved by the Permanent Committee between the director-generals of local health units and the Conference of Mayors.

The total budget for public health and health care in the Region was €6.7 billion in 2007. Of this, €520 million was allocated to the social sector to address the needs of the most vulnerable groups.

Some examples of practice in which regional policies have affected inequality in health are outlined below.

#### *For disabled people*

- Programmes to guarantee equal opportunities in the workplace, in education, to enable easier access to health services
- Activation of networks to facilitate home care, focusing on family care and community care programmes
- Improvement of public facilities in the Region, such as sports stadiums and university buildings to facilitate access for disabled citizens

#### *For low-income families caring for a dependent family member*

- Regional economic support and relief given to such families to pay for a daily caregiver in the home

#### *For independent older people*

- Distribution of emergency telephone diallers to 20 000 older people living at home financed by the Region – €5.16 million



- The opportunity to attend university courses under the University of the Golden Years project at the Universities of Padua and Verona

#### *For acute dependent older people*

- Development of a network of residential care services: 270 facilities equipped with 26 000 beds
- Integration between residential home care and home care
- Experimentation with “community care hospitals”
- Reinforcement of the home care network, with a focus on home nursing, rehabilitation and care

#### *For low-income groups, reducing the cost of pharmaceuticals*

- The number of people exempt from paying for prescriptions is 1.45 million, or 31% of the Veneto population.

Compared with other regions of Italy, the incidence of relative poverty in the Veneto Region is still relatively low: 4.6% according to 2007 data from the Italian National Institute of Statistics (ISTAT). This is due to an efficient welfare system able to respond to social distress, to the multicentred organization of the health care system in the territory, which includes public health and social services, and to the strong collaboration with nongovernmental organizations and not-for-profit voluntary organizations that provide essential social support for vulnerable groups. Recent data on poverty in the Region, however, indicate a changing situation in the near future, linked to increasing economic instability and job insecurity.

To sum up, effective cooperation between the Region and the municipalities on providing health and social services has proved to be appropriate in dealing with the new demographic trends and in tackling or at least coming to terms with widespread inequality in health.

## 4. MEASURING THE PERFORMANCE AND IMPACT OF REGIONAL HEALTH SYSTEMS

### Measuring regional variation

Two important initiatives have examined the measurement of health and health performance in regions in different countries in Europe.

#### *Joint Information Project<sup>9</sup>*

The second phase of the Joint Information Project has just been completed under the leadership of the Institute of Public Health and Work in North Rhine–Westphalia, WHO Collaborating Centre for Regional Health Policy and Public Health. Although data for health indicators in the WHO European Health for All database are collected on the national level, this project represents the first step towards the construction of a database with regional data for health indicators.

Following a pilot phase in 2004, the second phase of the project started in June 2007. The project aimed to collect data for selected indicators at the regional level, create a database and present the data using graphics systems and provide analysis of deviations from national averages.

The 28 member regions of the Regions for Health Network in Europe from 18 countries were requested to provide data for six selected indicators. They included mortality, morbidity and health care resource indicators. The indicators selected were life expectancy at birth for males and females, AIDS incidence per 100 000 population, tuberculosis incidence per 100 000 population, the number of hospital beds per 100 000 population, the number of physicians per 100 000 population and the expenditure on inpatient care per capita, all using the definitions of the WHO European

<sup>9</sup> This section is based on a presentation to the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by Bernd Kowall of the Institute of Public Health and Work in North Rhine–Westphalia, WHO Collaborating Centre for Regional Health Policy and Public Health.

Health for All database. Data were collected for 2000–2006.

Data quality was checked by comparison with national data or across different years. Nineteen regions provided data, and four provided acceptable data for all six indicators.

The initial analysis of the data showed remarkable differences between the regional and the national levels, most often for health care resources (numbers of hospital beds and of physicians per 100 000). A few regions such as Madeira (Spain), Ústí Region (Czech Republic) and Vologda Oblast (Russian Federation) strikingly deviated from the national level for life expectancy.

The data confirmed some trends known already from the national data. For instance, life expectancy was increasing in all regions except the two in the Russian Federation. The number of hospital beds was declining in most regions, whereas the number of physicians was increasing in most regions.

As a result of the project, a web site was created offering access to the final report summarizing the results of the project and presenting the data using the Data Presentation System (DPS-2), developed by the WHO Regional Office for Europe for the European Health for All database, and a mapping module, Macromedia Flash. DPS-2 has made it possible to integrate user-defined regions, indicators and years and provide the user with various graphs and tables. Macromedia Flash would provide the user with interactive maps. The final report has now been issued (24).

In view of the remarkable differences between some regional and national data, a database such as this at the regional level is needed to complement the WHO European Health for All database. Possible options for strengthening this work in future include:

- basing collection on a clear research question and gathering the information necessary to answer that question;
- having one partner in each country be responsible for collecting the data in the regions;
- refining the level of data collected: for example, on one indicator North West England shows better results than Madeira, but Manchester, a city in the region, has poorer results than Madeira;
- stronger links with the EU: the new EU health strategy refers to regions twice, Eurostat has shown interest in regional statistics, and there might be an opportunity to work with the Committee of the Regions and build on the development of the European Community Health Indicators project; and
- stronger links with WHO: the WHO European Health for All database might be developed further (Italy already has a regional health for all database).

#### *ISARE Project<sup>10</sup>*

The ISARE Project (Indicateurs de Santé des Régions Européennes – Health Indicators in the European Regions; <http://www.isare.org>) has been through three phases, the latest including 23 countries. The aim has been to identify and present the importance of the regional level in health policies and in managing the health system, recognizing that, on the epidemiological level, national averages hide important variation and diseases know no boundaries – national or regional.

The general objectives have been to gather useful information about how to use health indicators at the regional (subnational) level of the EU. The more specific objectives of phases 1 and 2 were to identify the “health regions” in Europe, describe data quality and availability at these levels, identify data sources, test the collection of data in these regions and built an experimental database. Phase

<sup>10</sup> This section is based on a presentation at the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by Helmut Brand of the Institute of Public Health and Work in North Rhine–Westphalia, WHO Collaborating Centre for Regional Health Policy and Public Health presenting on behalf of André Ochoa, project coordinator of ISARE III, Observatoire régional de la santé d'Aquitaine.

3 aimed to extend the results to the countries joining the EU since 2004, update the information for the other countries and check different methods of analysing the data.

In identifying the most appropriate level for health information exchange between regions, the criteria used have been the responsibility for health and social policies, using issues such as local democracy, population size and health reporting to identify the appropriate level in the EU Nomenclature of Territorial Units for Statistics (NUTS). The recommendations were made with the help of the ISARE country correspondent. The results are agreed regions in each country but with great variation across Europe, ranging from NUTS level 1 to level 4, and with some not being at a NUTS level at all, and the chosen regions differ greatly in population size, both in countries and across the continent.

Indicators have been selected that are of high interest for decision-making and that match well the European Community Health Indicators list. The result is a list of 73 data items or indicators organized in 11 sections. These are now available in an experimental database developed for internal use within the Project that provides good comparative data for each participating region.

The Project has provided several lessons. In a context where the regional dimension is becoming increasingly recognized in the new projects funded in the Public Health Programme of the EU, the ISARE Project has developed methods to identify relevant subnational levels using various sorts of information relating to the level of decision-making and of local democracy. The project has shown that not only regions but also smaller countries are interested in comparing their situation with regions in larger countries.

Analysing data at the regional level requires the expertise of regional professionals. Gathering the data at regional level has been feasible, and the problems of validity and comparability of data seem

similar to those encountered for comparisons between countries. Exact comparison may be difficult, but trends could be monitored.

Some indicators are weak. The domain of health promotion is particularly problematic, with indicators for major issues in public health affected by a lack of data on such indicators as immunization, obesity and tobacco.

The ISARE project has shown the value of collaboration between regional and national health observatories, has strengthened this and has shown the need for a network. The project has been an experimental approach and has put on the agenda the need to continue to develop tools for gathering, validating, analysing and disseminating health data at the regional level.

### Comparing the management of regional health systems

The Benchmarking Regional Health Management II study was set up in cooperation with the Regions for Health Network in Europe to examine how regions take different approaches to policies and management in public health.<sup>11</sup> The project focused on three tracer conditions:

- measles: where the uptake of immunization needs to be increased;
- breast cancer – especially screening and care, and early detection needs to be improved; and
- type 2 diabetes: especially screening and care, and complication rates need to be reduced.

Twenty-one European regions, most of which are members of the Regions for Health Network in Europe, participated in this project from 2004 until 2007. The aims of the study were increasing transparency about policies, creating a platform on which regions could learn from each other and identifying good practice in health management

<sup>11</sup> This section is based on a presentation at the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by Peter Schröder-Bäck of the Institute of Public Health and Work in North Rhine–Westphalia, WHO Collaborating Centre for Regional Health Policy and Public Health.

to enable regions to learn from each other more easily.

The method was to look at health systems in 21 regions across Europe, most of which are members of the Regions for Health Network in Europe, and construct an organigram of each system, using also interviews with experts from each region and health indicators to clarify how and how well each worked. The organigram was a flow chart intended to map processes to clarify critical interactions, relationships and how information spreads through the organization to demonstrate how regional health management works in practice.

Drawing on a literature review and expert advice, policies and interventions were identified and assessed, and reference frameworks for the three tracer conditions were constructed. Cluster analysis was conducted to compare meaningfully regions according to their social structure and economic development. Good practice could be identified by combining the frameworks, the interview results and the indicators.

The reference frameworks consisted of two-dimensional matrices, identifying on one axis specific time points at which interventions might be undertaken (such as primary prevention, screening and other measures for diabetes) and on the other the target of the interventions (such as individuals or the general population for diabetes).

A rapid appraisal method was developed, comparing local uptake of effective interventions with the number recommended through the literature. A colour-coding system enabled rapid assessment of how many interventions were in place. Although the rapid appraisal method had limitations in that it was only quantitative, it had clear advantages. It was relatively easy to use and, compared with the little effort it required, very helpful in gaining insight into a region's health management approach. It gave an immediate sense of the areas policy-makers should examine more closely to improve health management in their region. In addition, regions

could be compared against each other – and learn from each other, although without ranking them crudely, which the participating regions had wanted to avoid.

Indicators were also collected for each of the three conditions, based on experience and other sources, such as the European Community Health Indicators work. For example, for type 2 diabetes, the incidence, prevalence, participation of people with diabetes in education programmes and hospitalization rate were selected.

The in-depth interviews for this condition covered informing and educating the public, detection, examination and screening, diabetes surveillance, treatment and care, self-care and education of people with diabetes and the role of self-help groups.

The study showed immense variety in the organization, implementation and evaluation of regional programmes relating to measles, breast cancer and type 2 diabetes. The number of breast cancer centres, the prevention of breast cancer and its treatment revealed great discrepancy across European regions. Only about half the regions had integrated care programmes for breast cancer and a registry for inviting women for mammography screening.

In some cases, the differences were the result of cultural differences between regions and countries; this appeared to be the case for measles immunization, where attitudes towards whether it might be compulsory differed markedly. Regions differed also in the screening and treatment of diabetes. Specific education programmes to prevent diabetes were implemented in half the participating regions. A diabetes surveillance system was established in one third of the regions. Practice varied as to the time for the first vaccination. Examination of all these differences allowed good practices to be identified.

The project found that good quantitative regional data were still lacking; often data were collected

at the national level but not at the regional level. Claiming that there is good practice without good data is difficult. The study had shown in numerous cases and with the help of specific regions that regional data are urgently required for implementing specific actions and recommendations at the regional level and for analysing impact.

Several different but effective approaches to health management were identified. The outcomes from the analysis indicated that there was no single ideal way of managing disease prevention, treatment and follow-up care. The study revealed differences in disease prevention, treatment and follow-up care not only between regions in different countries but also between regions within the same country.

The final report of Benchmarking Regional Health Management II, which contained information on the methods, results, discussions and conclusions, has now been issued (25).

Several lessons and opportunities arise from this work; possible options for the future include:

- further benchmarking studies to strengthen insight into particular management issues;
- a systematic programme to encourage learning between regions;
- use of the method to identify and monitor the uptake of public health interventions, for example for obesity;
- use within regions to examine local variation in practice;
- repetition of data-gathering after a gap – perhaps two years – to examine whether changes had occurred; and
- collaboration with other EU agencies on a wider basis and possibly linking to the use of money from the EU Structural Funds to measure and tackle ill health.

## 5. COMPARING THE PERFORMANCE AND IMPACT OF REGIONAL HEALTH SYSTEMS: AN EXAMPLE FROM ITALY<sup>12</sup>

Research carried out for Italy's Ministry of Public Administration used a method that might be useful to assess the regional health systems in other countries. The purpose of the study was (i) to assess the intrinsic consistency of the different regional health systems in Italy (such as comparing levels of need, demand, supply, efficiency and outcomes) and (ii) to evaluate their overall performance against a range of different criteria (such as budget equilibrium, quality of care, responsiveness, equity and outcomes).

Italy has a population of 58.7 million. It has a decentralized National Health Service, formed in 1978 and organized at three tiers: national, regional and local. The 21 regions enjoy considerable autonomy in this area, since they raise taxes for the health service, own and control the 177 local health units and 97 hospital trusts and can adopt different institutional and organizational arrangements. The regions vary greatly in terms of population (ranging from 0.1 million in Valle d'Aosta to 9.2 million in Lombardy), history, income, demography and health conditions. Each has an elected regional council and a different pattern of governance in its health system. The 1992–1993 reform introduced some elements of public-private competition, but only one region (Lombardy) has made a complete split between purchasers and providers, while most regions run wholly or substantially integrated health systems.

The introduction of the National Health Service helped equalize spending on health across Italy's regions, but questions remained as to whether equal spending led to equal results and the extent to

<sup>12</sup> This section is based upon a presentation to the 15th Annual Conference of the Regions for Health Network in Europe in 2007 of research by Vittorio Mapelli of the *Università degli studi di Milano* (University of Milan).

which different institutional or governance models affected outcomes.

The study classified the regions according to whether they had adopted an integrated health system, meaning that all public hospitals were inside the local health units or independent. The analysis showed that seven had integrated health systems, nine quasi-integrated, four quasi-independent and one independent.

A second analysis identified three governance models. In the “bureaucratic model”, the region viewed its role as of a “superior entity” issuing laws and decrees, ruling the system through command-and-control and one-way communication with local health units. In the “centralized model”, the region viewed itself as a “holding company”, with the final responsibility for issues such as budgets and deficits, but the process allowed two-way communication. In the “contractual model”, the region conceived its role as the one of “hub and spoke”, managing the system through negotiation with local health units on objectives and resources, in a way that allowed harmonization of conflicting interests. Both the centralized and contractual models appeared well endowed with the tools and capacity of governance.

The regions were then assessed according to two explanatory models: internal consistency and governance and results. About 80 regional indicators, available from official sources and covering different areas, were identified and synthesized in each key result area, through appropriate (subjective) weights.

To examine internal consistency, a two-part approach was used. The first part took demand for health care as being related, on the one hand, to social context and needs and, on the other, to supply and expenditure, and assessed whether these appeared to be proportionate. This assessment was based on whether the ranking by quartile for the region was the same for both dimensions. The other part compared expenditure,

quality, efficiency and effectiveness and health outcomes and looked for consistency in relation to high levels of quality and health (whether the region was in the third or fourth quartile). The conclusions for Italy were that 10 regions, in the north and centre, showed an intrinsically consistent health system, whereas four in the south displayed serious inconsistencies due to low per capita health expenditure and poor managerial and outcome indicators, in the face of high levels of need. Two regions showed inconsistency due to excess capacity and high expenditure and four other regions partial inconsistency for excess expenditure but good results or proportionate expenditure but lack of results.

In the governance model, the regions were assessed on the relationship between the availability of tools and capacity (such as an information system, strategic planning, managerial control and fiscal effort) and their performance in key result areas.

Expressed more generally, the performance of the regional health systems did not seem to depend on either the institutional model (integrated or independent) or the governance model (centralized or contractual), except for the bureaucratic model – prevailing in the eight southern regions – which did not perform very well. Performance did depend on the steering capacity of regions and the richness of their instruments and capacity for governance. The level of health expenditure did not seem crucial either for the performance of health services (quality or effectiveness) or for health outcomes. High levels of expenditure were often due to managerial incapacity.

Capacity for good governance seems to develop in a favourable context. The performance of the regional health systems depends on the regional socioeconomic and political context, prompting the question: what factors are modifiable? Based on a broader understanding of Italy's background, financial transfers alone did not seem to be the solution – although they had equalized per capita expenditure across regions. Rather, improved

governance would require investment in human capital in health (more professional resources, better managerial education and a result-oriented culture), investment in information systems and investment in social and environmental capital. Structural conditions appeared to have a far stronger influence than reforms in promoting competition.

## **6. POSTSCRIPT: REFLECTIONS ON THE POTENTIAL OF REGIONS TO ADD VALUE TO HEALTH AND WEALTH**

Regions are an important part of the political and administrative structure of Europe in the 21st century. In many countries, they have the competence, capacity and ambition to improve the prosperity and quality of life of their resident population. Many have a significant role in framing and delivering health services, and regions increasingly recognize their own role in improving health beyond action just through health services.

The fact that health and health care affect the economy considerably is clearer than ever. The macroeconomic effects include the impact of human capital, health and life expectancy on the size of the economy, economic efficiency and labour market competitiveness. There are also effects of health care system expenditure, the cost of illness and disease and the unrealized and potential effects of leveraging health sector investment.

These descriptions display a strong basis for developing links at the regional (or indeed national) level at a conceptual and practical level between health and wealth and between the health system and the economy. However, several other points need to be considered in thinking through these possible links.

### **Health as a product of society**

There is a danger of adopting a neoliberal model and seeing in the economic system the solution to problems when it may exacerbate them. The health system and the health care industry are distinct – although they may work together. Health is the result of all the collective structures and actions of society. Achieving health requires constantly questioning existing policies, such as challenging the EU's approach to unhealthy food production methods and thereby securing a balanced set of policies. It is also essential to see all economic development – including that of the health care

sector – within the environmental context. The aim must be balanced economic, social and environmental development.

### **Protection for professional and human values**

There can be a challenge in balancing health and health care against the commercial interests of the health care industry. Citizens must not be misled into thinking that health is a commodity to be purchased, and care should be taken that health system reforms do not turn health care professionals into unthinking technicians. What people understand will influence the health care network.

### **Governance**

These complex interrelationships suggest that there needs to be a conscious process of governance across the health care sector and especially sensitivity to the fact that market values might harm the most vulnerable and increase inequality. There may be a basis for collective funding of core services but also acceptance that, if people want to invest more in their own health, this is good both for them and for jobs. There may also be an argument for developing a “wellness system”, to manage wellness alongside the health system.

The full potential of the regional level has not yet been tapped. Regional and national governments need to develop the information, incentives and structures to accelerate sharing and adoption of what works best.



## **ANNEX 1. THE ORIGINS AND DEVELOPMENT OF THE REGIONS FOR HEALTH NETWORK IN EUROPE<sup>13</sup>**

In 2007, the Regions for Health Network in Europe assembled for the third time in Düsseldorf, North Rhine–Westphalia, to celebrate its 15th anniversary in the city where its founding document had been signed.

In 1992 it had met in the city, following earlier gatherings of regions with an interest in health in Lugarno in the Canton of Ticino in Switzerland and then in Cardiff in Wales in the United Kingdom. In Cardiff, all participants had agreed that some organization was needed independent from the national level to promote the objectives of WHO, and in the following year 11 regions had signed a statement of intent and direction in Düsseldorf that led to the founding of the Network. The document had set out three objectives – dynamic alliances, knowledge transfer and intersectoral action – that have remained a focus for the Network since then.

The Network faced questions at its founding. What is a region? What can it do for health? What is the role of a focal point? Who should have the role?

What tasks should the Network take on? What projects? How should its meetings be organized? How should it work with other regions and with the European Union?

All these questions have found practical solutions, and over the 15 years, the Network has also built up good contacts with the European Commission and with the EU Committee of the Regions. In 2002, the Network developed a political level. The First Regional Ministerial Forum took place in Copenhagen in 2003, and subsequent ones in 2003 in Venice, 2004 in Valencia and 2007 in Düsseldorf.

For the first 10 years, an important role had been to bring about cooperation between regions from eastern and western Europe. A second benefit had been to sharpen the profile of the regions in Europe. A third benefit had been to help regions develop their own policies, compare with others and share their experiences.

<sup>13</sup> This section is based on a presentation to the 15th Annual Conference of the Regions for Health Network in Europe in 2007 by Birgit Wehrauch, the former focal point for North Rhine–Westphalia in the Regions for Health Network in Europe.

## REFERENCES

1. *Atlas of mortality in Europe: subnational patterns, 1980/1981 and 1990/1991*. Copenhagen, WHO Regional Office for Europe, 1997.
2. Ritsatakis A et al., eds. *Exploring health policy development in Europe*. Copenhagen, WHO Regional Office for Europe, 1997 ([http://www.euro.who.int/InformationSources/Publications/Catalogue/20010911\\_37](http://www.euro.who.int/InformationSources/Publications/Catalogue/20010911_37), accessed 9 June 2008).
3. Saltman R, Bankauskaite V, Vrangbaek K. *Decentralization in health care: strategies and outcomes*. Maidenhead, Open University Press, 2007.
4. *World development report: investing in health*. Washington, DC, World Bank, 1993.
5. Macroeconomics and health [web site]. Geneva, World Health Organization, 2008 <http://www.who.int/macrohealth/en>, accessed 9 June 2008).
6. Beraldo S et al. *Healthy, educated and wealthy; is the welfare state really harmful for growth?* Barcelona, University of Barcelona, 2005.
7. Suhrcke M et al. *The contribution of health to the economy in the European Union*. Luxembourg, Office for Official Publications of the European Communities, 2005.
8. *Claiming the health dividend: unlocking the benefits of NHS spending*. London, King's Fund, 2002.
9. *World development report 2006: equity and development*. Washington, DC, World Bank, 2006 (<http://go.worldbank.org/UWYLBR43C0>, accessed 9 June 2008).
10. *Health: a regional development agenda*. Liverpool, North West England, 1999.
11. *Investment for health: a plan for North West England*. Liverpool, North West England, 2003.
12. *Choosing health: making healthy choices easier*. London, Department of Health, 2004.
13. Wanless D. *Securing our future health: taking a long-term view*. London, H.M. Stationery Office, 2002.
14. Wanless D. *Securing good health for the whole population*. London, H.M. Stationery Office, 2004.
15. *Good corporate citizenship and the NHS – a regional mapping*. London, National Institute for Health and Clinical Excellence, 2004.
16. McKnight JL, Kretzmann JP. *Mapping community capacity*. Evanston, IL, Institute for Policy Research, Northwestern University, 1996.
17. Mackenbach JP, Meerding WJ, Kunst AE. *Economic implications of socio-economic health inequalities in the European Union*. Brussels, European Communities, 2007 ([http://ec.europa.eu/health/ph\\_determinants/socio\\_economics/documents/socioeco\\_inequalities\\_en.pdf](http://ec.europa.eu/health/ph_determinants/socio_economics/documents/socioeco_inequalities_en.pdf), accessed 9 June 2008).
18. Pickett KE, Wilkinson RG. Child wellbeing and income inequality in rich societies: ecological cross sectional study. *British Medical Journal*, 2007, 335:1080.
19. Whitehead M. A typology of actions to tackle social inequalities in health. *Journal of Epidemiology and Community Health*, 2007, 61:473–478.
20. Ben-Shlomo Y, Kuh D. *A life course approach to chronic disease epidemiology*. 2nd ed. Oxford, Oxford University Press, 2004.
21. Marmot M. Achieving health equity: from root causes to fair outcomes. *Lancet*, 2007, 370:1153–1163.
22. Suhrcke M, Rocco L, McKee M. *Health: a vital investment for economic development in eastern Europe and central Asia*. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies, 2007 (<http://www.euro.who.int/socialdeterminants/publications/publications>, accessed 9 June 2008).
23. Mackenbach JP, Meerding WJ, Kunst AE. *Economic implications of socio-economic inequalities in health in the European Union*. Brussels, European Commission, 2007.
24. Hellmeier W, Kowall B. *Regions for Health Network: continuance of the Joint Information Project – mapping regional health indicators*.

Copenhagen, WHO Regional Office for Europe and Düsseldorf, Institute of Public health of North Rhine–Westphalia, 2008 (<http://www.loegd.nrw.de/gesundheitsberichterstattung/rhn>, accessed 9 June 2008).

25. *Benchmarking Regional Health Management II (Ben RHM II)*. Düsseldorf, Ministry of Employment, Health and Social Affairs of the State of North Rhine–Westphalia, 2007 ([http://ec.europa.eu/health/ph\\_projectsd/2003/action1/docs/2003\\_1\\_25\\_frep\\_en.pdf](http://ec.europa.eu/health/ph_projectsd/2003/action1/docs/2003_1_25_frep_en.pdf), accessed 9 June 2008).

World Health Organization  
Regional Office for Europe  
Scherfigsvej 8  
DK-2100 Copenhagen Ø  
Denmark

Tel.: +45 39 17 17 17. Fax: +45 39 17 18 18. E-mail: [postmaster@euro.who.int](mailto:postmaster@euro.who.int)  
Web site: [www.euro.who.int](http://www.euro.who.int)

WHOLIS: E91414