

# ACTING TOGETHER: A ROADMAP FOR SUSTAIN- ABLE HEALTH- CARE



PART I

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Acting Together: A Roadmap for Sustainable Healthcare

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## FOREWORDS

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*Mary Harney*

The challenges facing our healthcare systems are changing rapidly. The ageing population, combined with the rising incidence of chronic illness, is placing unprecedented pressure on European healthcare systems. These facts are the starting point for an exciting programme that has been underway for the past year. I have the honour of chairing the European Steering Group on Sustainable Healthcare (ESG), sponsored by AbbVie, involving a wide-ranging group of experts and stakeholders. We readily acknowledge that reform cannot happen overnight and much work needs to be done. This initiative aims to formulate an integrated set of solutions to begin to tackle the current challenges and address the needs of coming generations.

Affordability and financial sustainability are the biggest issues confronting healthcare providers. Across Europe, notwithstanding the complexity and differences in how healthcare is funded and organised, we all face the same challenges: how to continue to provide high quality and universally accessible health services in a financially sustainable way.

This White Paper is intended as a contribution to the ongoing debate. The analysis and recommendations are informed by inputs and engagement with a range of stakeholders and experts. In particular, our work was influenced by a number of successful initiatives from across Europe and further afield, projects which offer the potential for mainstreaming or scaling up in order to transform our healthcare systems.

Healthcare expenditure is too often seen in a narrow context — purely as an economic cost. We in the ESG believe that health expenditure must be seen from a different perspective. The principle of “Health is Wealth” still applies. At an economic level, health expenditure organised well and delivered at the right time will reduce other welfare costs, speed up the return to work for patients, and generally improve productivity. At a human level,

it can improve the wellbeing, quality of life and living standards of our citizens, and the stability of our society.

Healthcare stakeholders including patients, healthcare workers, hospitals, social insurers and policymakers acknowledge that the way we deliver healthcare must change. This can only happen if everyone in the sector joins forces to take concrete actions and drive that change. Our focus must be on value-driven rather than on volume-driven healthcare. This will encompass quality issues across the spectrum of care, encourage and reward innovation, and have improved patient outcomes as a priority.

The status quo in European healthcare is not an option. In the absence of radical change, care-rationing may be inevitable. Emphasis must be on prevention, early intervention, and the re-design and reorganisation of care systems. Much work and new thinking is needed.



**Mary Harney**

CHAIR OF THE EUROPEAN STEERING GROUP  
ON SUSTAINABLE HEALTHCARE

FORMER MINISTER OF HEALTH OF IRELAND  
AND FORMER DEPUTY PRIME MINISTER OF IRELAND

## *Pascale Richetta*

At AbbVie, we believe that the world needs new approaches to address today's healthcare challenges. The debate around sustainable healthcare has found a stage at EU and national level over the past few years and there has been a real sense of urgency to deliver new, innovative solutions for patients and for the system as a whole.

We know governments, social insurers, healthcare professionals, patient organisations, academia, non-governmental organisations, the pharma industry and other stakeholders must work together to implement ground-breaking initiatives which place patients firmly at the centre and deliver on key goals: to improve prevention and early intervention; develop chronic disease management models; and integrate treatment and care throughout healthcare systems.

It is with this belief that AbbVie has taken a unique and proactive approach to the sustainability of European healthcare systems. Rather than create another "Think Tank", AbbVie has created a "Do Tank" across 21 European countries. In each country, AbbVie has established strong multi-stakeholder partnerships and working groups to develop concrete pilots which are being implemented on a local level with a view to scaling them up for the benefit of patients and healthcare systems at a broader level.

There is no one-size-fits-all solution for European healthcare systems. AbbVie's pan-European Do Tank aims to test ideas, facilitate bottom-up innovations and actions and provide tangible results and proofs-of-concept which will allow policymakers, European governments and other decision-makers to make wise decisions in their efforts to progressively transform healthcare.

This European White Paper on Sustainable Healthcare comprises the high-level recommendations of the expert members of the European Steering Group on Sustainable Healthcare and case studies from the Do Tank in countries across Europe.

We are aware that our conclusions and recommendations will not be the only potential solutions for healthcare sustainability. Nevertheless, I believe that they represent the start of a constructive journey towards better sustainability and I – and AbbVie – are committed to continuing this journey for the benefit of patients across Europe.



**Dr. Pascale Richetta**

MEMBER OF THE EUROPEAN STEERING GROUP  
ON SUSTAINABLE HEALTHCARE  
VICE PRESIDENT,  
WESTERN EUROPE & CANADA OPERATIONS,  
ABBVIE

**Acting together we, the members of the European Steering Group, have produced this White Paper as a collaborative, independent and forward-looking contribution to the sustainable healthcare debate. Under the coordination of the rapporteur, Professor Walter Ricciardi, each one of us has offered our respective expertise and experience to provide input, validate findings and suggest recommendations. The objective of our group is to stimulate pan-European multi-stakeholder partnerships that will drive healthcare transformation by identifying practical, tangible actions and providing innovative solutions to the sustainability challenges facing healthcare systems.**




Prof. Vincenzo Atella



Dr. Juan Jover



Dr. Mary Baker



Prof. Walter Ricciardi



Dr. Jacek Grabowski



Dr. Pascale Richetta



Mary Harney



Walter van Kuijen

## ABOUT THE EUROPEAN STEERING GROUP ON SUSTAINABLE HEALTHCARE

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Ensuring that European healthcare systems remain sustainable represents a major challenge for governments, healthcare providers and patients. In the context of austerity policies and slow economic growth across Europe, it is increasingly difficult to reconcile the growing pressure to adopt new technologies and address the complexity on healthcare services of multi-morbidity in an ageing population.

The debate about how best to achieve healthcare that is sustainable in the long term has gained traction at EU and national level in recent years. However, finding concrete solutions and best practice examples that can actually contribute to sustainable healthcare systems is not easy. This is why the European Steering Group (ESG) on Sustainable Healthcare was initiated in March 2014. The ESG operates within the framework of the “Recipes for Sustainable Healthcare” programme created in May 2013 by the biopharmaceutical company AbbVie.

Lifelong prevention, early diagnosis and effective intervention are all important measures in improving the sustainability of healthcare systems. Governments, private sector companies, social insurers, healthcare providers,

and people living with chronic conditions each have a role to play. We all need to work in partnership to change and transform our healthcare systems to fit the future.

With representatives from the policy community and civil society, healthcare professionals and scientific societies, academics, and industry, the ESG provides insight and expertise based on evidence and tested examples which can help address the challenges posed to European healthcare systems. The group, chaired by Mary Harney, former Health Minister of Ireland, met regularly and organised roundtable meetings with high-level policy stakeholders at EU level, including representatives from the European Commission, the Council of Ministers and the European Parliament. The group also had close exchanges with key policy stakeholders from Member States.

This interaction with stakeholders informed our discussions and conclusions and provided concrete evidence on best practices across Europe and in the US in the fields of investing in prevention and early intervention, fostering empowered and responsible citizens, and offering ideas for the reorganisation of care delivery. The ESG’s key findings and policy recommendations have been collected in this European White Paper on Sustainable Healthcare.



# EXECUTIVE SUMMARY AND RECOMMEN- DATIONS

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PART 2

*Acting together*  
EXECUTIVE SUMMARY  
AND RECOMMENDATIONS  
PART 2

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With 37% of the European population expected to be aged 60 or over by 2050, in addition to the rise in chronic diseases and the current constraints on public finances, European healthcare systems are being required to deliver more — and better — care with reduced resources. Traditional healthcare systems set up for acute care can no longer cope with these challenges without a fundamental transformation.

This transformation has the potential to achieve sustainable healthcare. Established in March 2014 and chaired by Mary Harney, former Health Minister of Ireland, the European Steering Group (ESG) on Sustainable Healthcare brings together expertise from the policy community and civil society, healthcare professionals and scientific societies, academics and industry.

By assessing concrete evidence and best practice examples across Europe and beyond, the ESG aims to formulate an integrated set of adaptable and scalable solutions to guide the transformation of European healthcare systems. Through the organisation of several stakeholder roundtables and with the

objective of stimulating ideas, the ESG also sought out the views and expertise from high-level European and national policymakers, patient representatives and healthcare professionals.

Concrete innovative actions are needed to make the transformation of healthcare systems a reality, from acute care to chronic care, from hospital dependency to integrated care across all levels of health systems, as well as from cost and volume to value and outcome. These reflections have led to the identification of three main opportunities that should guide the transformation of healthcare systems towards sustainability, namely:

- 1. ACTION 1: INVESTING IN PREVENTION AND EARLY INTERVENTION;**
- 2. ACTION 2: FOSTERING EMPOWERED AND RESPONSIBLE CITIZENS;**
- 3. ACTION 3: REORGANISING CARE DELIVERY.**

# ACTION 1

## INVESTING IN PREVENTION AND EARLY INTERVENTION

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Prevention means intervening before something becomes a serious health issue, including eradicating, eliminating or minimising the impact of disease and disability or, if this is not feasible, slowing the progression of disease and disability. Early intervention, on the other hand, is the process of providing specialist intervention and support services for a person who needs them, either early in the life course or at the onset of the development of a health problem.

Building on concrete examples, this paper demonstrates that programmes investing in prevention and early intervention and involving all relevant stakeholders may be much more cost-effective than simply treating diseases. Evidence demonstrates that significant tangible savings can be created by investment in prevention and early intervention. This paper therefore provides a strong rationale for increasing the share of healthcare budgets dedicated to prevention. Currently, a mere 3% on average of national healthcare budgets is reported as being spent on prevention.

# ACTION 2

## FOSTERING EMPOWERED AND RESPONSIBLE CITIZENS

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Fostering empowerment and responsibility in citizens involves assisting individuals to discover and develop the inherent capacity to be more responsible for one's own health. Healthcare systems will be more sustainable if individuals understand their rights, responsibilities, capabilities and opportunities to remain healthy and to manage their own health in the most appropriate setting, providing the political and economic context empowers them to do so.

It must be acknowledged that in Europe today many people lack the financial resources to adopt healthy lifestyles or they place a higher priority on their immediate survival needs. In addition, challenges arise from the fact that healthcare systems are complex, so accessing the right care at the right time in the most effective way while making the best use of health services can be a real challenge.

Empowerment strategies require resources and capability building that should be driven by the public sector (including health and education sectors), family doctors, civil society, media, the healthcare industry and academia. Information sharing, coupled with sustained investment in education, will also enable citizens to better understand their health condition and participate in the decision-making process to plan and manage their own healthcare plans, which will result in better outcomes.

# ACTION 3

## REORGANISING CARE DELIVERY

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The reorganisation of care delivery requires a paradigm shift and the adoption of three intertwined principles, namely: patient-centric integrated care, improved hospital efficiency, and interventions in an optimal setting, either in hospitals, at home or in communities.

By putting patients' care pathways at the centre of the system design, integrated care systems can deliver improved and tailored health outcomes while creating efficiencies in settings where they are delivered. Successful reorganisation of care delivery should adopt a transparent bottom-up approach to build trust and synergies between the different stakeholders. It also includes Information and Communication Technology (ICT) applications to enable lean processes and new organisational methods. The reorganisation of healthcare delivery models and systems cannot materialise without the involvement of governments, providers, patients, insurers and health professionals.

The ESG calls on policymakers at European, national and regional level as well as all relevant stakeholders from the public and private sector to jointly take active roles and responsibilities to foster these opportunities. To guide European and local reflection, the ESG has identified a number of concrete recommendations that are outlined in a set of calls to action for the transformation of our healthcare systems so that ultimately, they better serve society in a sustainable fashion.

## Disclaimer

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It should be noted that the solutions and recommendations presented in this White Paper by no means present a silver bullet to achieving sustainable healthcare overnight. Nevertheless, the ESG is confident that this White Paper represents the start of a joint effort in designing healthcare systems that will be better adapted to the future needs of our society. The real value of the ESG's recommendations will be gained by continually encouraging others to consider these recommendations and by refining and adapting recommended strategies and best practices on an ongoing basis.

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*Recommendations*  
FOR SUSTAINABLE HEALTHCARE

*Action 1: Investing in  
Prevention and Early  
Intervention*

SMART HEALTH  
EXPENDITURE CAN  
BE AN INVESTMENT  
RATHER THAN A  
COST: INVESTMENT  
IN PREVENTION  
AND EARLY  
INTERVENTION  
IS ESSENTIAL  
FOR HEALTHCARE  
SUSTAINABILITY AND  
SOCIOECONOMIC  
DEVELOPMENT  
AND STABILITY

## **ACTING AT EU LEVEL, THE ESG CALLS ON:**

The European Commission, in the context of the European Semester, to systematically include into Country Specific Recommendations (CSRs) targets for transitioning investment from treatment to prevention and/or early intervention, and the development of a European scorecard to monitor the progress of investments and outcomes in prevention and/or early interventions across EU Member States.

The European Commission, in conjunction with the Council of Health Ministers, to develop a pan-European platform to exchange information, expertise and best practices on data surveillance and analysis of health and epidemic trends of the European population in order to inform the development of effective policy frameworks.

## **ACTING AT NATIONAL LEVEL, THE ESG CALLS ON:**

Governments, following the example of some EU Member States (e.g. Ireland), to consider health aspects in all policies by “health-proofing” all their policies.

Government ministries to develop joint budgeting mechanisms between ministries, thus addressing the current silo approach (e.g. health and social affairs, education, and economic and budget ministries).

Member States to develop policies and incentive mechanisms to mobilise employers and occupational health professionals to incorporate prevention and early intervention in the work place, and to foster the involvement of pharmacists and nurses in routine prevention practices, such as vaccination, regular health monitoring and reporting.

Member States, with the support of the European Commission through the pan-European platform of data exchange (see second call to action at EU Level, listed previously), to establish comparable chronic diseases registries, and develop practice guidelines on systematic data collection and surveillance, so as to better inform national prevention and treatment strategies.

# 2

*Action 2: Fostering  
Empowered and Responsible  
Citizens*

EMPOWERED  
AND RESPONSIBLE  
CITIZENS ARE  
THE MAIN PLAYERS  
CONTRIBUTING  
TO HEALTHCARE  
SUSTAINABILITY

**ACTING AT EU LEVEL,  
THE ESG CALLS ON:**

The European Commission and European Parliament to drive and adopt new data protection rules and regulations so as to enable appropriate use of data to inform health intervention strategies, while ensuring that patient privacy is protected.

**ACTING AT NATIONAL LEVEL,  
THE ESG CALLS ON:**

Employers to develop employment approaches that allow for flexibility in work schedules for employees who are responsible for caring for their family members living with chronic diseases.

Member States to encourage initiatives that foster the implementation of prevention and early intervention programmes in the workplace.

Member States, with the support of the European Commission, to fully transpose the Directive on the application of patients' rights in cross-border healthcare to improve citizens' access to information on healthcare systems and develop and implement information and education programmes for citizens on medical technologies and care available.

The national Ministers of Education, in the context of prevention campaigns, to integrate early education programmes in school curricula addressing health determinants at early stages in life.

The Ministries of Health and Education to jointly develop programmes aimed at increasing the level of health literacy among the general population. This would be conducive to an improvement in health outcomes and a reduction in healthcare costs.

Member States to foster the development of multidisciplinary partnership and comprehensive approaches between policymakers, healthcare providers, community and health planners, patients and pharmaceutical companies to address adherence issues with regards to chronic diseases.

# 3

*Action 3: Reorganising  
Care Delivery*

INTEGRATED CARE  
BASED ON PATIENT  
PATHWAYS AND  
CARE DELIVERY  
SHIFTED FROM  
HOSPITALS  
TO COMMUNITIES  
AND HOMES CAN  
FOSTER GREATER  
EFFICIENCIES AND  
BETTER HEALTH  
OUTCOMES

**ACTING AT EU LEVEL,  
THE ESG CALLS ON:**

The European Commission, building on the learnings from the European Innovation Partnership on Active and Healthy Ageing, to define recommendations for national performance indicators for healthcare sustainability. Built into a balanced scorecard, indicators would provide information about the core components of an efficient healthcare system, such as health results and risk factors, direct and indirect costs, quality of care and perceived quality of life. Operational indicators could be added, such as the level of integration of delivery of care at home, the efficiency of use of ICT tools and the share of healthcare budgets dedicated to prevention.

The European Commission to create a platform of exchange for European and non-European countries' experiences in transforming healthcare systems established for acute care into systems fit to address chronic care.

**ACTING AT NATIONAL LEVEL,  
THE ESG CALLS ON:**

Member States to develop guidelines and funding mechanisms to incentivise the development of community care and home care.

Member States to develop integrated care models for major chronic diseases which efficiently link and leverage chronic disease registries.

Member States' governments, healthcare insurers and providers to conduct frequent performance audits in hospitals to identify opportunities for efficiencies, thereby improving the performance outcome of their services.

Member States, along with appropriate training programmes for healthcare professionals, to develop and implement national health information technology (ICT) strategies and action plans — including the deployment of eHealth and mHealth applications — to improve treatment and care efficiency and outcomes.



# INTRO- DUCTION



PART 3

INTRODUCTION  
PART 3

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Advances in medicine and public health, improved nutrition and better sanitation have sharply reduced infant mortality. Life expectancy at birth is projected to increase from 76.7 years in 2010 to 84.6 in 2060 for men and from 82.5 to 89.1 for women. By contrast, the fertility rates in the EU are projected to climb only modestly, from 1.58 births in 2012 to 1.71 in 2060<sup>1</sup>. This combination of low fertility rates and increased life expectancy means that the proportion of the population aged 60 or over is expected to reach 37% by 2050<sup>2</sup>.

Improved life expectancy as a consequence of medical, social, cultural and economic advances represents great progress. It does, however, present unintended challenges. Longevity can potentially increase the number of years lived with disability and illness. The impact on the economic and social lives of millions of patients and their families adds considerable cost to healthcare<sup>3</sup>. Simultaneously, disease

1 — **European Commission.** *The 2012 Ageing Report: Underlying Assumptions and Projection Methodologies.* European Economy 4/2011. 2012. Available online: [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2011/pdf/ee-2011-4\\_en.pdf](http://ec.europa.eu/economy_finance/publications/european_economy/2011/pdf/ee-2011-4_en.pdf)

2 — **United Nations.** *World Population Ageing: 1950-2050. Magnitude and speed of population ageing.* 2013. Available online: <http://www.un.org/esa/population/publications/worldageing19502050/pdf/80chapterii.pdf>

3 — **The Lancet.** *Global Burden of Disease Study 2010.* 2012. Available online: <http://www.thelancet.com/themed/global-burden-of-disease>

profiles have changed fundamentally from life-threatening infectious diseases, maternal-child illness and malnutrition to the increased prevalence of chronic disease. This has been exacerbated by a parallel increase in the risk factors, including sedentary lifestyles, unhealthy diets, obesity and smoking<sup>4</sup>. Chronic disease now accounts for more than 87% of deaths in Europe<sup>5</sup>. The prevalence and related mortality rates are expected to rise sharply in the future<sup>3</sup>. Moreover, most of those with a long-term disorder have more than one chronic condition, but existing health systems are often dominated by single-disease approaches<sup>6</sup>.

Healthcare expenditure continues to increase in many countries and, in many cases, at a faster rate than the growth of GDP. The financial sustainability of healthcare systems has become a major concern for European governments. Current approaches mainly focus on short-term cost savings rather than long-term sustainability. Without fundamental

4 — **OECD.** *Health at a Glance 2011: OECD Indicators.* OECD Publishing. 2011. Available online: [http://dx.doi.org/10.1787/health\\_glance-2011-en](http://dx.doi.org/10.1787/health_glance-2011-en)

5 — Busse R, Blümel M, Scheller-Kreinsen D, Zentner A. *Tackling chronic disease In Europe. Strategies, interventions and challenges.* Observatory Studies Series No. 20. WHO 2010.

6 — Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *Lancet* 2012. 380(9836):37-43. Available online: [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(12\)60240-2.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(12)60240-2.pdf)

changes, average public spending on health and long-term care in OECD countries will rise to over 10% of GDP<sup>7</sup>.

Many have argued that the lack of long-term focus is because actions are required which take longer than the lifespan of a parliamentary term. However, targeted initiatives and the scaling-up of best practices can substantially improve the sustainability of healthcare systems. Bold actions are required to drive a new paradigm dynamic. A transition is needed from acute care to prevention and chronic care management in a community setting, from medical paternalism to citizen empowerment, from hospital dependency to integrated care, and from volume-based to value-based financing mechanisms.

### *From acute care to prevention and early intervention*

A truly sustainable healthcare model should place greater emphasis on reducing the incidence of disease. Effective prevention often delivers the best outcome and value.

7 — OECD. Public spending on health and long-term care: a new set of projections. OECD Economic Policy Papers No.6. OECD Publishing, 2013. Available online: <http://www.oecd.org/eco/growth/Health%20FINAL.pdf>

Efforts need to be focused on prevention and earlier intervention to delay the onset and progression of disease.

### *From medical paternalism to citizen empowerment*

Every citizen eventually becomes a patient. We need to ensure that they are empowered to play a central role in the management of their own health and to take responsibility for behavioural changes. This requires equipping them with the skills needed to critically assess and interpret appropriate and informed health information so that they can make the necessary decisions to maintain a healthy lifestyle. Health information and literacy are key drivers in making lifestyle decisions; disease understanding is an important factor in self-management of conditions, treatment decisions and adherence to treatment. If individuals participate in pro-actively managing their health, outcomes will be improved. Of course, this is only possible for those who have the capability to make these choices. This caveat highlights the need for these measures to be embedded in broader policies to alleviate poverty, promote economic security, and foster

inclusive and participative societies based on social, economic and political rights.

*From hospital dependency  
to integrated care*

Many aspects of healthcare systems will need to be restructured if they are to continue to deliver high-quality, equitable and affordable services. In the future, the emphasis should shift from the acute hospital to out-patient, community and home settings. This would result in a much more cost-effective system with better health outcomes and higher patient satisfaction.

*From ad hoc data collection to systematic  
surveillance and monitoring*

Healthcare systems generate huge amounts of data. This data offers considerable potential for policymakers, healthcare professionals, and patients if gathered and used appropriately. It could inform and improve prevention policies and strategies, allow better planning of treatment and care, and empower citizens and patients. However, in most countries the collection, organisation and

deployment of data is not effectively set up and used. Issues such as patient confidentiality, civil liberties and the complexity of data sets across organisations and systems must be addressed. The challenges have become much greater as a consequence of recent revelations on the scale of surveillance undertaken by some states and the resulting loss of public trust. Concerns about the commercial use of data also pose a challenge. Addressing these challenges will unlock the huge potential presented by healthcare information and technology.

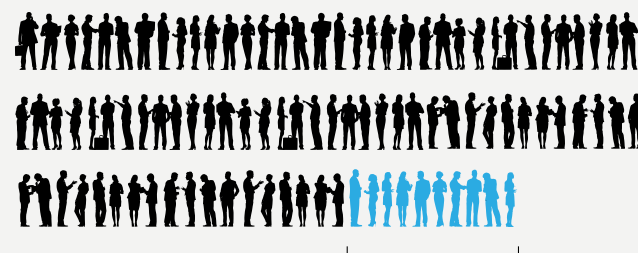
*From volume to value based payments*

Health is a value in itself. It is also a precondition for economic prosperity. The health of individuals influences economic outcomes in terms of productivity, labour supply, human capital and public spending. Some health expenditure is an investment in society that is growth-friendly. Policymakers need to ensure that short-term cost saving is not detrimental to long-term sustainability.

The financing of innovation and decisions around therapy funding both need forward

thinking, where value and benefits are both rewarded and widely diffused.

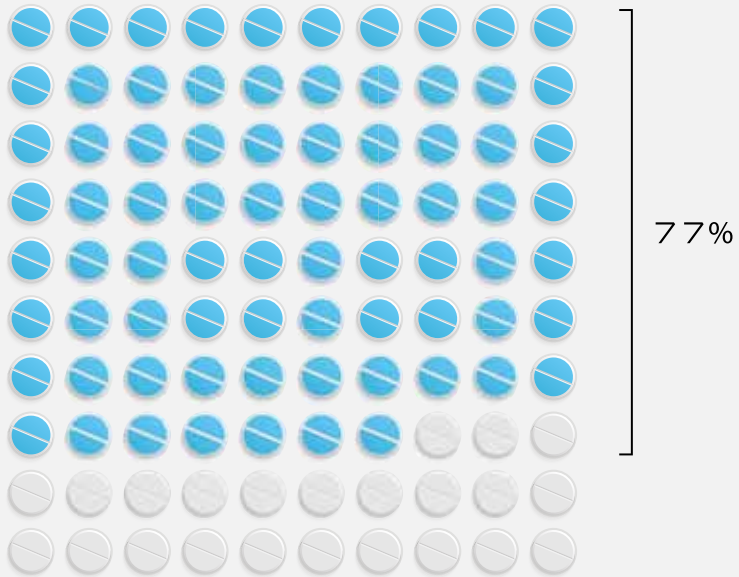
As in all innovation, great value will rightly attract great reward. Truly transformative pharmaceutical innovation creates societal value way beyond the innovator, the therapy, the device or the price. For patients, the value of lives transformed and lives saved by innovative therapies can never be fully reflected in a price. We recognise that the widest diffusion of innovation, and the creation of greatest value, happens when we adapt to the great variety of purchaser needs and constraints. With due reward, innovation is best supported by facilitating its widest diffusion, spreading and sharing the value created.



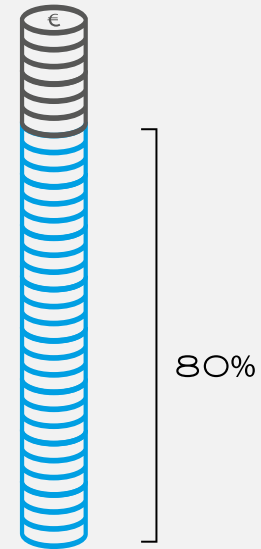
10%  
LEAVE JOBS FOR HEALTH REASONS



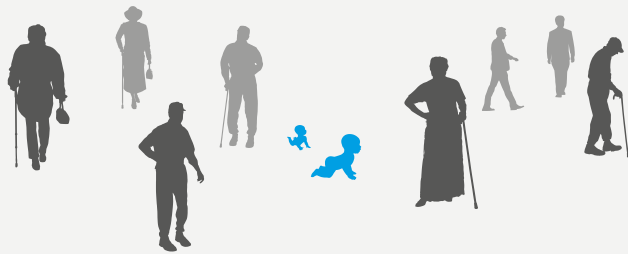
ONE IN SIX PEOPLE IN THE EU HAS A MILD TO  
SEVERE DISABILITY



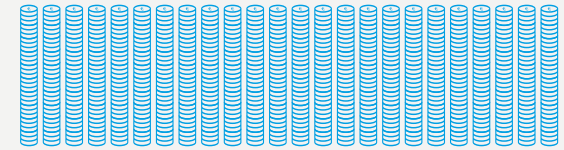
CHRONIC DISEASE ACCOUNTS FOR 77%  
OF TOTAL DISEASE IN EUROPE



CHRONIC DISEASE ACCOUNTS  
FOR 80% OF THE EU BUDGET  
OF €700 BILLION

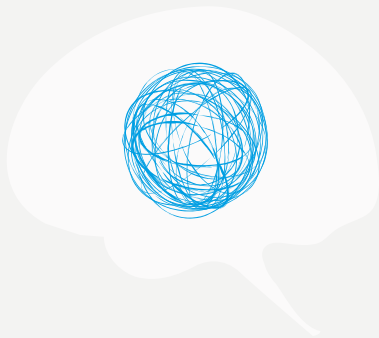


TOTAL FERTILITY RATE IN EUROPE IN 2012:  
1.58 CHILDREN PER WOMAN

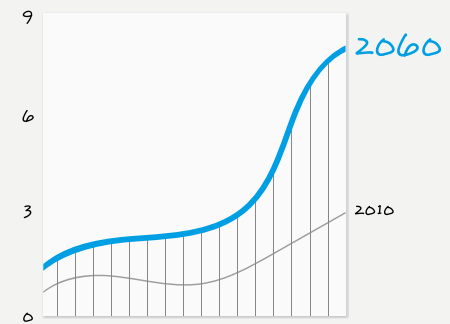


**€240 BILLION**

COST TO THE EU IN LOSS OF PRODUCTIVITY DUE TO  
SICKNESS ABSENCE  
EQUIVALENT OF 2% OF GDP



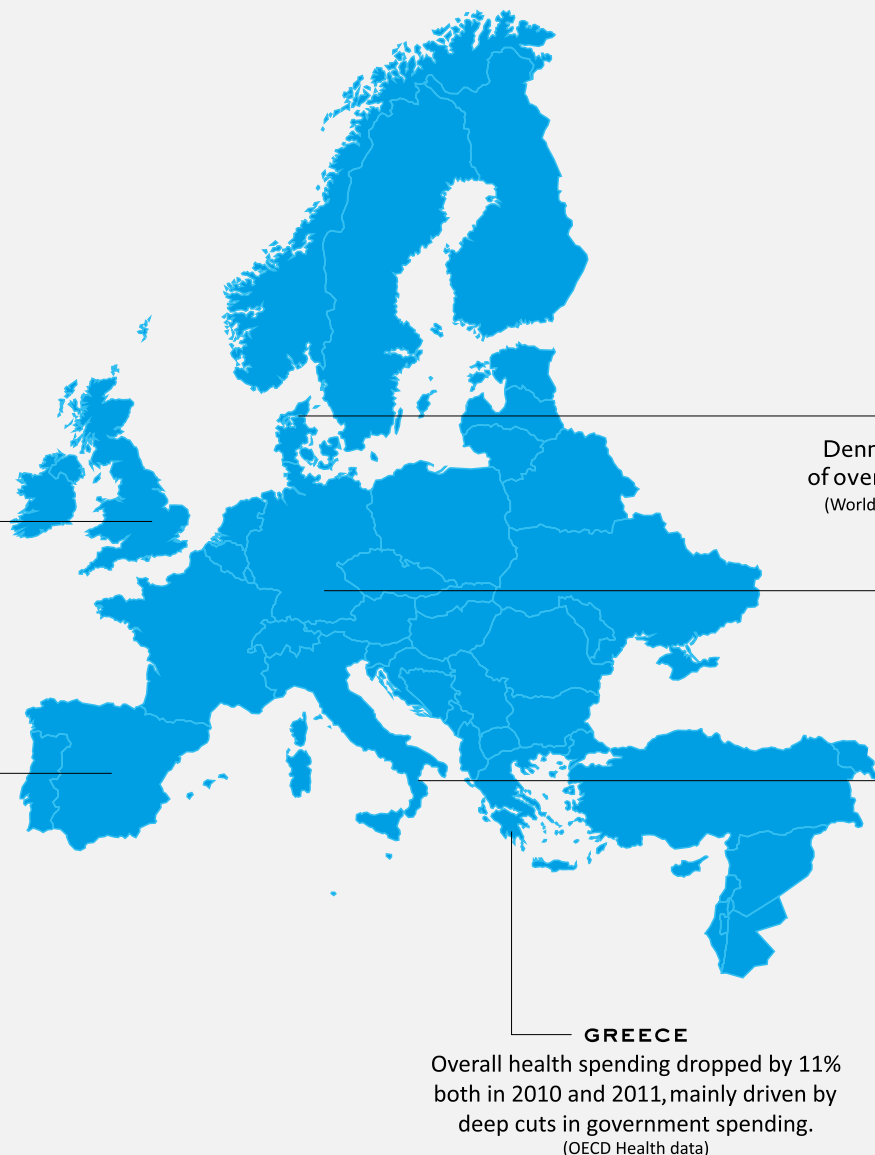
BRAIN DISORDERS COST EUROPE €800 BILLION PER YEAR



PUBLIC HEALTH SPENDING ON LONG-TERM  
CARE AS % OF GDP; 2010-2060



BY 2050, OVER 1/3 OF THE EU POPULATION  
WILL BE OVER 60 YEARS OLD  
(UN)



**UK**

67% of men and 57% of women are either overweight or obese, one of highest rates in Western Europe.  
(Lancet)

**SPAIN**

Public health expenditure was reduced by 13.7% in 2012 and by 16.2% in 2013 (including social services), changes to the Spanish health system have excluded many undocumented migrants from coverage and a significant part of the Spanish population is excluded from basic healthcare.  
(Lancet)

**DENMARK**

Denmark has a cancer rate of over 326 cases per 100,000  
(World Cancer Research Foundation)

**GERMANY**

A loss of 5 million workers over the next 15 years.  
(The Guardian)

**ITALY**

26.8% of Italy's population was aged 60 or over in 2013, making it the country with the oldest population in Europe and placing it 2<sup>nd</sup> in the world.  
(UN)

**GREECE**

Overall health spending dropped by 11% both in 2010 and 2011, mainly driven by deep cuts in government spending.  
(OECD Health data)



ACTION 1:  
INVESTING IN PREVENTION  
AND EARLY INTERVENTION

**PART 4**



**[ Prevention is intervening before something becomes a problem, including actions aimed at eradicating, eliminating or minimising the impact of disease and disability or, if none of these are feasible, slowing the progress of the disease and disability. ]**

**[ Early intervention is the process of providing specialist intervention and support services for a person who needs them, either early in the life course and/or early in the development of a health issue or problem. ]**

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It is commonly recognised that diabetes, stroke, respiratory disease and certain cancers are major drivers of healthcare expenditure<sup>1</sup>. Conversely, many of these diseases are avoidable. According to the World Health Organisation, about 80% of cardiovascular disease and diabetes, and at least 40% of cancers can be prevented simply by a change in lifestyle<sup>2,3,4</sup>. Evidence clearly shows that these diseases can be avoided by means of targeted and personalised preventive strategies. Despite this, insufficient investment and effort have been made to reduce the risk factors. In Europe, only 3% of healthcare expenditure is allocated to prevention and public health programmes, and in some countries it is as low as 1%<sup>5</sup>.

Financial and human resources need to be switched from treatment to prevention and health promotion. Smart investment in

1 — **World Health Organisation**. *Global status report on non-communicable diseases 2010. Reducing risks and preventing disease: population-wide intervention*. 2011.

2 — **World Health Organisation**. *Preventing chronic diseases: a vital investment*. 2005.

3 — Fontana L. Modulating Human Aging and Age-Associated Diseases. *Biochim Biophys Acta* 2009;1790:1133-1138.

4 — Fontana L, Klein S. Aging, adiposity and calorie restriction. *JAMA* 2007;297:986-994.

5 — **OECD**. *Health at a Glance: Europe 2012*. OECD Publishing. 2012. Available online: <http://dx.doi.org/10.1787/9789264183896-en>

prevention and early intervention can generate significant savings in health and social welfare<sup>6</sup>.

Health literacy programmes should be included in school curricula with the objective of encouraging the adoption of a healthy lifestyle from childhood. When tackling substances that may be harmful, such as energy-dense food and drinks, tobacco and alcohol, governments must focus primarily on the most effective levers which include price, availability, and marketing. Increasing taxes on tobacco, alcohol or sugar, implementing public information campaigns and ensuring health-friendly controls on advertising and sponsorship can have a positive impact<sup>7</sup>.

Healthcare systems should be assessed on the basis of ‘diseases avoided’ rather than ‘diseases treated’. New sets of performance indicators and outcome measurements should be developed to assess and evaluate preventive policies and programmes, so as to accurately appraise health prevention and unlock the true potential of successful prevention programmes.

6 — **European Commission**. *Investing in health*. 2013. Available online: [http://ec.europa.eu/health/strategy/docs/swd\\_investing\\_in\\_health.pdf](http://ec.europa.eu/health/strategy/docs/swd_investing_in_health.pdf)

7 — Marmot M. *Fair society, Healthy lives*. 2010.

## SMART INVESTMENT IN PREVENTION AND EARLY INTERVENTION CAN GENERATE TANGIBLE SAVINGS IN HEALTH AND SOCIAL WELFARE

Smart investment in prevention and early intervention to minimise disability and restore health can lead to tangible savings in health, social welfare, and reduce absenteeism from work as illustrated by the Early Intervention Clinic project carried out by Hospital Clínico San Carlos in Spain. By reducing disability through early diagnosis, referral and intervention programmes, the Early Intervention Clinic has demonstrated that every €1 spent can generate total savings of €11 in health and social welfare.

Prevention through behavioural change is probably the most successful strategy to produce cost savings. For example, in the US, the National Economic and Social Forum suggests that universal early childhood care and education on health literacy offers a return on investment of between €4 and €7 for every €1 spent<sup>8</sup>. Research also showed that reducing sodium intake to 2,300 milligrams (i.e. a teaspoon) per day in the US adult population could save \$18 billion in healthcare costs annually<sup>9</sup>.

The Centre for Economic and International Studies in Italy, in partnership with the OECD, is now conducting a research project to examine the implications for health expenditures if no preventive action is taken. “A micro-simulation model to inform health policy: Making our health expenditure sustainable in the future” aims to develop statistical and econometric tools to measure the sustainability of EU healthcare systems. If successful, this model should help estimate future demand and the impact and cost of proposed health policies. This will help policymakers and decision-makers by providing valuable information to make informed decisions.

8 — Harvey B. *The Case for Prevention and Early Intervention. Promoting positive outcomes for children, families and communities.* 2014.

9 — Palar K., Sturm R. Potential Societal Savings from Reduced Sodium Consumption in the U.S. Adult Population. *Am J Health Promot* 2009;24(1):49-57.

## CASE STUDY

### EARLY INTERVENTION CLINICS IN MUSCULOSKELETAL- RELATED WORK DISABILITY, SPAIN

#### CONTEXT

Musculoskeletal diseases (MSD) are the main cause of work disability. In Spain, MSD-related Temporary Work Disability (TWD) resulted in almost 21 million working days lost per year, which, if translated into financial terms, equals a loss of €1.7 billion.

#### ACTION

Early intervention on MSD-TWD is based on the idea that there is a “window of opportunity” in which patients with MSD disability recover faster. This hypothesis was tested in a randomised, controlled intervention study including more than 10,000 episodes of MSD-TWD<sup>10</sup>. The control group received standard care. The control group received standard care. The intervention group received a specific care programme consisting of: early referral to specialised care, expert clinical management, education of patients and support to return to work.

The number of sick leave days was reduced by an average of 40%. Use of healthcare resources was reduced by 45%. Permanent work disabilities were reduced by 50%.

There was a significant increase in patient satisfaction. Estimated ROI: €1 invested generated a total social return of €11.

#### OUTCOME

The Fit for Work Coalition has supported the progressive expansion of Early Intervention Clinics (EIC) for MSD-TWD in Spain since 2012. The clinics set a new standard, with an early referral from Primary Care to Rheumatology specialists in the first week of TWD. At present, 27 early intervention actions in many public hospitals throughout Spain have adopted these programmes. In Cantabria and Valencia, where clinics have been open for more than two years, the results obtained are close to the original research, with significant savings for Health and Social Security Systems.

10 — Abasolo L, Blanco M, Bachiller J, Candelas G, Collado P, Lajas C, Revenga M, Ricci P, Lázaro P, Aguilar MD, Fernández-Gutierrez B, Hernández-García C, Carmona L, Jover JA. A Health System Program to reduce Work Disability related to musculoskeletal disorders. *Ann Intern Med*, sept 2005; 143 (6): 404-414.

## CASE STUDY

### MICRO-SIMULATION MODEL TO INFORM HEALTH POLICIES ON INVESTMENT IN PREVENTION

#### CONTEXT

Healthcare spending accounts for a large share of public spending in all industrialised countries and is one of the most important components of social security expenditure, to which households add a relatively large portion of private spending. This trend is expected to increase in the coming decades. According to both the European Union and the Centers for Medicare & Medicaid Services (CMS) in the US, predicting the future evolution of healthcare expenditure is one of the most crucial challenges facing all industrialised countries.

As trends in spending continue to rise, there is increasing pressure on government budgets, health services provisions and patients' personal finances. To help improve policy intervention planning, policymakers within OECD countries have promoted initiatives to help forecast these trends.

#### ACTION

Scientifically supported by the OECD, the Centre for Economic and International Studies (CEIS) in Italy has completed a research project for the design and implementation of a European dynamic micro-simulation model. "A micro-simulation model to inform health policy: Making our health expenditure sustainable in the future" aims to develop statistical and econometric tools to measure the sustainability of the EU's healthcare systems. The results of this model should help estimate current and future demand and the impact and cost of proposed health care policies. This will

provide policymakers and decision-makers with the information necessary to take informed decisions.

#### OUTCOME

The first run of simulations, focused on the role of policies aimed at reducing the prevalence of overweight and obese people in twelve European countries, seeks to determine how these policies will affect the prevalence of conditions related to high body mass index (BMI) levels. The simulations are obtained using two different scenarios concerning the reduction of obesity prevalence. In the first scenario, the assumption is that the prevalence of obese and severely obese individuals falls by about 25%. In the second scenario the assumption is that future generations will be leaner, with a 3% reduction in the average BMI starting in 2030. In both cases, the effects are of significant decreases in the prevalence of diabetes and hypertension, among other things. The model predicts a drop of over 6% for the former and 1% for the latter in the first scenario and 2-3 percentage points in the second. In turn, the reduction in direct costs (drugs, diagnostics and out-patient visits) is estimated to be over €5.5 billion per year in the first scenario and almost 3 billion in the second, although these effects are quite heterogeneous across European countries. Once in-patient costs are included in the computation, the above figures double, leading to a reduction of more than €11 billion per year in the first scenario and to more than €6 billion in the second.

In order to maximise their effectiveness, prevention and early intervention strategies should be tailored to different age groups according to differences in lifestyle, behaviour, and biological risk factors. Cultural and ethnic differences must be considered when developing preventive strategies. It is rarely too early to start prevention programmes. Targeting the youngest will ensure that investment in prevention will ultimately outweigh the cost of future disease.

## Prevention and early intervention are not the sole responsibility of doctors and patients, but rather everybody, including employers, schools and social media

Prevention and early intervention should not be the sole responsibility of doctors and patients.

Since the majority of the population spends over half of their lives at the work place, employers and occupational health professionals have an important role to play in prevention and early intervention. It is essential to keep the workforce healthy and employable for as long as possible. Governments, social service providers, company doctors, patient advocates, employers and worker representatives have begun to work together and adopted an interdisciplinary approach to develop practical solutions and interventions. Germany is bracing itself for the loss of 5 million workers over the next 15 years. The proposed legislation in Germany, the Prevention Act, which was not ratified in previous years, has been put on the table again for 2015. It seeks to strengthen prevention and the promotion of health in environments, including kindergartens, schools and the work-place. The legislation, which is currently being debated in the German Parliament, would include all social insurance carriers and would authorise occupational health physicians and sick funds

to agree on early and appropriate health interventions. Funding agencies are running regional pilot projects for occupational health. The outcomes of these pilots will be closely monitored and measured so as to assess the potential of scaling up the initiatives.

A US literature meta-analysis on costs and savings associated with workplace disease prevention and wellness programmes found that every dollar invested can cut medical care costs by \$3.27 and reduce absenteeism costs by \$2.73<sup>11</sup>.

Too often public health, occupational health and social support for citizens operate in silos and fail to communicate with each other. A project in Poland demonstrates the benefits of a participative model of cooperation. The main objective was to prevent the social exclusion of people with chronic diseases, helping them remain in work. The promotion of physical activity and early intervention can lead to a stable work environment with substantial benefits to individuals and the economy. This requires a holistic approach involving multiple stakeholders, promoting the benefits to society.

Health literacy and education programmes should not only take place within medical clinics, but also in schools and other public and social settings. Governments and public health authorities should put in place appropriate and easily understood health information targeted at the general population to influence behavioural change in all aspects of their lives.

11 — Baicker K, Cutler D, Song Z. Workplace wellness programs can generate savings. *Health Affairs* 2010;29(2):304-11.

CASE STUDY	
HEALTHY - ACTIVE - CONSTRUCTIVE IN POLAND	
<b>CONTEXT</b>  In under forty years, the average age in Poland will be among the highest in Europe, according to Poland's Central Statistical Office (CSO). In the next fifty years, the effective age-dependency ratio for Poland will increase more than threefold, with one pensioner per worker-- the second highest rate in European Union. In the meantime, one in four people of working age is professionally inactive due to illness or disability. Some would not have been forced to leave the labour market had effective preventive measures been implemented.	<b>EXPECTED OUTCOME</b>  Started in Oct 2013, the project is expected to be completed at the end of 2015. Evidence gathered in the project will be analysed for the development of a policy framework on prevention strategies and programmes in the workplace.
<b>ACTION</b>  The Work Foundation and AbbVie Poland have formed a partnership and launched a series of preventive actions including: employer and employee education and health promotion, an early diagnosis and intervention programme with access to rehabilitation at the onset of musculoskeletal diseases, ergonomic workplace designs, inclusion of occupational consultancy and effective coordination between specialists, employees and employers.	

## MOBILISING PHARMACISTS, NURSES AND COMMUNITY HEALTH WORKERS TO MAXIMISE THE EFFICIENCY OF PREVENTION AND EARLY INTERVENTION

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We need an expanded role for nurses and pharmacists in the provision of health services, mainly in the area of health promotion, screening and administration of appropriate interventions for those suffering from chronic diseases and vulnerable populations<sup>12</sup>. These interventions can include vaccinations, health checks such as monitoring of blood pressure, cholesterol and blood glucose or chlamydia testing.

Co-operation by a variety of healthcare professionals demonstrates that when different groups are mobilised they can improve efficiency and maximise health outcomes. In addition, making use of unconventional settings can also improve access to prevention and early intervention initiatives.

In the US and the UK, pharmacists provide flu vaccinations<sup>13</sup>, mainly for vulnerable groups like the elderly and pregnant women<sup>14</sup>.

12 — World Health Organisation. *Enhancing nursing and midwifery capacity to contribute to the prevention, treatment and management of noncommunicable diseases*. 2012. Available online: <http://www.who.int/hrh/resources/observer12.pdf?ua=1>

13 — Hogue MD, Grabenstein JD, Foster SL, Rothholz MC. Pharmacist involvement with immunizations: a decade of professional advancement. *J Am Pharm Assoc* 2006;46(2):168-182.

14 — Anderson C, Thornley T. "It's easier in pharmacy": why some patients prefer to pay for flu jabs rather than use the National Health Service. *BMC Health Services Research* 2014;14:35.

## USING "BIG DATA" TO ANTICIPATE AND UNDERSTAND HEALTHCARE NEEDS

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Healthcare systems generate huge amounts of data. This data, if gathered and used appropriately, offers considerable potential to improve patient care, inform and improve prevention policies and strategies, and support patient empowerment.

The Irish Longitudinal Study on Ageing (TILDA) is one of the flagship studies in Europe that showcase best practice in proactive and systematic data collection and analysis with the purpose of informing policy development. Launched in 2006 by Trinity College Dublin, the study explores the health, lifestyles and financial situation of over 8,500 people as they grow older, and observes how their circumstances change over a 10 year period. TILDA provides a comprehensive and accurate picture of the characteristics, needs and contributions of older persons in Ireland that will be invaluable for policymakers and public sector service planners, voluntary sector actors engaged in activities that seek to enhance the social integration of older citizens and many private sector companies in the insurance and services industries.

In addition to data and information related to the general public, chronic disease registries are very important in informing policy development and treatment strategies. In Denmark, for example, the Danish DANBIO registry provides nationwide data on the disease course of patients with inflammatory rheumatic diseases. Since the year 2000, more than 22,000 patients have been included. The aim of DANBIO is to collect information on patients with rheumatoid arthritis as well as all the patients treated with biologicals. The data is being used to ensure efficient treatment of the individual patient, and is furthermore an important asset in scientific studies. DANBIO serves as an electronic patient 'chronicle' in routine care. Monitoring an individual patient's treatment over time can inform better treatment strategies and lead to improved quality of care and better treatment outcome and efficiency.

In a clinical and epidemiological research conducted in 2014, based on the results from the DANBIO registry, a significant reduction in diagnostic delay was observed in the large cohort of 13,721 patients with Rheumatoid Arthritis, Psoriatic Arthritis or Ankylosing Spondylitis<sup>15</sup>. These results will potentially assist policy makers to evaluate and assess the effectiveness of relevant awareness and intervention programmes.

15 — BMJ. Diagnostic delay in patients with rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis: results from the Danish nationwide DANBIO registry. Jan Sørensen, Merete Lund Hetland. 2014. Available online:

<http://ard.bmj.com/content/early/2014/02/17/annrheumdis-2013-204867.abstract>

CASE STUDY

THE IRISH LONGITUDINAL STUDY ON AGEING (TILDA)

CONTEXT

Europe’s population is ageing. By 2060, people aged 65 years or over will account for 29.5% of the EU-27’s population and the share of those aged 80 years or over is projected to almost triple (ref. Eurostat 2012). This brings with it the prospect of an enormous increase in the prevalence of chronic conditions such as Alzheimer’s, dementia and heart disease. Healthcare systems have no sustainable solutions in place to cope with these challenges, and few, if any, countries have a strategy for how to finance healthcare under these expected developments. This means that Europe’s ageing society is not only a healthcare challenge – it is also an enormous economic and financial challenge.

The role of research in responding to the challenges of an ageing society is not only to address specific diseases but also to provide factual evidence so that policymakers are able to make informed decisions. Ireland’s population is ageing much more slowly than the rest of the EU, and is therefore in an ideal position to study successful, healthy and active ageing in the younger ageing population, namely the population aged 50 and over. TILDA was designed to provide an evidence base for addressing current and emerging concerns associated with population ageing in Ireland. It aims to generate novel research, better understand the ageing process and the determinants of successful ageing, and inform national and international policy decisions on ageing.

ACTION

Launched by Trinity College Dublin in 2006, TILDA is a large-scale, nationally

representative study of 8,504 people aged 50 and over in Ireland. The study involves three components: home interviews, a self-completed questionnaire and a comprehensive health assessment conducted at a dedicated clinical centre. TILDA collects detailed information on all aspects of their lives, including the economic, health and social aspects. Both survey interviews and physical and biological measurements are utilised in the study.

EXPECTED OUTCOME

TILDA has provided important insights into the population’s health trends and has therefore informed healthcare policy development in Ireland. For example, using data from TILDA, researchers at the ESRI and TCD find that male survivors of CSA are three times more likely to be out of the workforce due to sickness/ disability compared to other men. TILDA findings show that risk factors for chronic diseases, heart attacks and strokes such as high blood pressure and irregular heart beat are undiagnosed in the older population. Simple and consistent health monitoring is therefore essential for the early identification and prevention of chronic conditions. A new report published on July 18, 2014 shows that nearly four out of five adults over the age of 50 are overweight or obese and a similar proportion has an ‘increased’ or ‘substantially increased’ BMI. The report therefore highlights the increased health risks and health services burden in older adults due to high rates of obesity.

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## RECOMMENDATIONS

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SMART HEALTH  
EXPENDITURE CAN  
BE AN INVESTMENT  
RATHER THAN A  
COST: INVESTMENT  
IN PREVENTION  
AND EARLY  
INTERVENTION  
IS ESSENTIAL  
FOR HEALTHCARE  
SUSTAINABILITY AND  
SOCIOECONOMIC  
DEVELOPMENT  
AND STABILITY

**ACTING AT EU LEVEL,  
THE ESG CALLS ON:**

The European Commission, in the context of the European Semester, to systematically include into Country Specific Recommendations (CSRs) targets for transitioning investment from treatment to prevention and/or early intervention, and the development of a European scorecard to monitor the progress of investments and outcomes in prevention and/or early interventions across EU Member States.

The European Commission, in conjunction with the Council of Health Ministers, to develop a pan-European platform to exchange information, expertise and best practices on data surveillance and analysis of health and epidemic trends of the European population in order to inform the development of effective policy frameworks.

**ACTING AT NATIONAL LEVEL,  
THE ESG CALLS ON:**

Governments, following the example of some EU Member States (e.g. Ireland), to consider health aspects in all policies by “health-proofing” all their policies.

Government ministries to develop joint budgeting mechanisms between ministries, thus addressing the current silo approach (e.g. health and social affairs, education, and economic and budget ministries).

Member States to develop policies and incentive mechanisms to mobilise employers and occupational health professionals to incorporate prevention and early intervention in the work place, and to foster the involvement of pharmacists and nurses in routine prevention practices, such as vaccination, regular health monitoring and reporting.

Member States, with the support of the European Commission through the pan-European platform of data exchange (see second call to action at EU Level, listed previously), to establish comparable chronic diseases registries, and develop practice guidelines on systematic data collection and surveillance, so as to better inform national prevention and treatment strategies.



ACTION 2:  
FOSTERING EMPOWERED AND  
RESPONSIBLE CITIZENS

**PART 5**



THE ESG DEFINES  
CITIZEN EMPOWERMENT AS:

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**[ Helping citizens discover  
and develop the inherent capacity  
to be responsible for one's  
own life. ]**

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All citizens will be patients at some point in their lives.

Healthcare systems will be more sustainable if individuals understand their abilities, opportunities, and responsibilities in maintaining their own health, know how to deal with the variety of health professionals and learn to navigate the complexity of the health system. Individuals and groups need to gain greater control over decisions and actions affecting their health. This includes different aspects: health literacy, chronic disease self-management, the role of technology and patient involvement in informing national policies (in order to make health systems more user-friendly and information more accessible)<sup>1</sup>.

Individuals should not be seen as consumers of health services but rather custodians of their own health<sup>2</sup>.

1 — **Lancet**. Patient empowerment-who empowers whom? Lancet 2012;379(9827):1677.

2 — **International Alliance of Patients' Organisations**. *Patient empowerment: for better quality, more sustainable health services globally*. 2014.

Citizen empowerment requires joint policy action from stakeholders. Through the Directive on the Application of Patients' Rights in Cross-Border Healthcare, the European Union already provides a legal framework for patients willing to gain greater access to information related to healthcare available across Europe, although in practice there is still much to be done. Improving citizen empowerment means mobilising groups with common interests such as the public sector, family doctors, civil society media, the healthcare industry and academia in order to build momentum and capacity in communities. This partnership can drive the process of empowerment<sup>3</sup>.

3 — **Active Citizenship Network**. Best practices on Chronic Patients and Organisations' Empowerment. 2014. Available online: [http://www.activecitizenship.net/files/patients\\_rights/8th\\_european\\_patients\\_rights\\_day\\_conference\\_materials/bp-chronic-patients-organizations-empowerment.pdf](http://www.activecitizenship.net/files/patients_rights/8th_european_patients_rights_day_conference_materials/bp-chronic-patients-organizations-empowerment.pdf)

## SHARED DECISION-MAKING BETWEEN DOCTOR AND PATIENT CAN IMPROVE CLINICAL AND FINANCIAL OUTCOMES

“No decision about me without me”. A strong partnership between family doctors and citizens is vital. The shortage of doctors and limitations on consultation time and resources make this increasingly important for patients to be fully informed and involved in their own care. Shared decision-making allows patients to understand their own condition, review all available treatment options, and work with their healthcare professional in developing their own treatment plans based on their own life and work agenda.

Web-based decision-making tools can help patients, their carers and clinicians to share clinical and personal data and make treatment choices together. However, caution is required as such approaches increase the problems associated with the digital divide, as many vulnerable population groups lack internet access and skills.

Application of patient report outcome measures (PROMs) in a chronic disease registry throughout treatment and disease management is another way to empower patients to participate in the decision-making process, and can improve the effectiveness and efficiency of treatment, as demonstrated by the PER-module (swe. Patientens Egen Registrering) in the Swedish Rheumatology Quality (SRQ) registry.



## CASE STUDY

### SRQ REGISTRY - CASE STUDY FROM SWEDEN

#### CONTEXT

Patient report outcome measures (PROMs) in chronic disease registries have been demonstrated to empower patients to participate in the decision-making process and can improve treatment effectiveness and efficiency. The PER-module (swe. Patientens Egen Registrering) of the Swedish Rheumatology Quality (SRQ) registry is an example of such an application.

#### ACTION

The Karolinska University Hospital, located in Stockholm, Sweden is the home of the SRQ registry which aims to improve the quality and value of care for people suffering from arthritis and other rheumatic diseases, and which also serves as a daily decision-making tool for clinicians. Designed by the Swedish Rheumatology Association, the innovative initiative is used by all rheumatology clinics in Sweden.

The SRQ registry is a database that follows patient outcomes over time. The patients enter their data on joint pain and current health status using a secured SRQ website and this information is automatically analysed and mapped. The provider may enter or update the information on the diagnosis, health status, and treatment and test results on the same website.

#### OUTCOME

The web-enabled SRQ registry makes use of real time, standardised data provided by patients, clinicians and diagnostic tests to improve the outcomes of care for individual patients, at the point of service as care is provided and in the patient's home to support self-management, as well as for quality improvement and research. By 2012, 25 of the 64 clinics were using the web services option to generate patient-reported data reports to support care delivery in the flow of care and feedback reports for quality improvement and research.

The SRQ also provides a solid foundation for real-life data research collaborations between pharmaceutical companies, the association and clinicians.

## ENSURING CARERS' WORKABILITY AND PRODUCTIVITY

Carers are important in improving quality of life and treatment outcomes for patients and for enhancing overall social well-being, including the ability to work and productivity. They may become managers of the care process, analyse the health needs of the family and community, ensure continuity of care and be dedicated to health promotion, rehabilitation and long-term assistance. By caring for patients in the home, carers substantially help reduce healthcare costs.

Sadly, the role of carer is often overlooked by policymakers and health systems. In addition, for many working citizens, taking on the role of informal carer presents a challenge as they struggle to balance work commitments and the demands of caring. For both caregivers and care receivers, it is important to have policies and programmes that provide adequate social and financial support and work flexibility.

Some researchers have noted that caring competently for a frail relative is the equivalent of a full-time job. Compared with their co-workers, caregivers have to take more time off, are interrupted at work more often, take more unpaid leave, work fewer hours than they wish<sup>4</sup> and ultimately feel constrained in their career possibilities<sup>5</sup>.

4 — Adelman RD, Tmanova LL, Delgado D, Dion S, Lachs MS. Caregiver burden: a clinical review. JAMA 2014;311(10):1052-60.

5 — Jiménez-Martín S, Vegas Sánchez R. *Availability and choice of care. Assessing Needs of Care in European Nations (ANCIEN) & European Network of Economic Policy Research Institutes*. 2012

As shown by data from the Survey of Health, Ageing and Retirement in Europe (SHARE), which collects information on the health, lifestyle and financial situation of individuals aged 50 and older in a majority of European countries, there is a wide variation in the potential availability of informal carers between countries<sup>6</sup>.

A Norwegian initiative is mapping out employees’ care responsibilities and the measures employers can take to relieve any perceived burden imposed by this double responsibility. This is an important example of how a country can deal with the challenges of an ageing population and demonstrates what companies and municipalities who work together can do to redress the care/work imbalance.

6 — Riedel M, Kraus M. *Analysis of Informal Care Provision across Europe: Regulation and Profile of Providers*. ENEPRI Research Report No. 96, 2011.

CASE STUDY

CARE FOR CARERS - NORWAY

CONTEXT

Traditionally, the burden of chronic diseases has always been focused on the patients themselves. Research shows that it is not the “caring role” in itself that is perceived as a “burden”. The challenge lies rather in how to balance the responsibility of caring for chronically-ill family members with the need to work at the same time. The pressure on carers and their ability to work and remain productive has far-reaching socioeconomic impacts.

ACTION

As a winner of the Great Place to Work award in Norway, AbbVie Norway has partnered with the Research Foundation Fafo, the pilot company Baerum (5th largest in Norway) and Oppegaard municipalities. The aim is to investigate the socioeconomic impact of full-time employees who have the dual responsibility of working and taking care of chronically ill family members, and look into measures that can help these employee-carers maintain their productivity at work. In addition to surveys and interviews that have been carried out with employees from these municipalities, an omnibus survey was carried out in June 2014 by Norstat. A total of 600 Norwegian employees were surveyed, out of which 139 persons (23%) answered that they had additional care responsibilities.

Consisting of approximately equal shares of women and men, and approximately the same number of publicly and privately employed, the survey results were representative of the Norwegian labour market.

OUTCOME AND NEXT STEPS

Part-time work and other types of absence from work come at a great cost, not only to the individual, but also to the healthcare system. The project findings indicate that those people who have extra care responsibilities at home are a group of employees with high motivation for work.

With supportive measures applied at the workplace, the care burden of these employees could be reduced, and they might be able to work full time. The study concludes with some key suggestions on flexible working hours, compensatory time off and paid leave, amongst others. With a potentially significant impact on the sustainability of the healthcare system, AbbVie Norway is working with selected municipalities to contribute towards a more efficient “use of manpower” based on the findings in the survey.

## UTILISING EHEALTH / MHEALTH TO INFORM AND EMPOWER CITIZENS

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eHealth and mHealth are widely recognised as offering huge potential for supporting, educating and empowering citizens. Currently, the majority of applications are geared towards organisations or professionals rather than the public. Nevertheless, it is essential that healthcare professionals and doctors are involved in designing eHealth and mHealth programmes for citizens so that the information disseminated is accurate. Philips' Personal Health Book seeks to gather all health information into one place for citizens, thereby keeping them fully informed.

Healthcare providers need to ensure a fine balance between sharing too much data versus sharing too little information. Debate continues around the issue of people being overwhelmed by the amount of information available on the Internet and the number of Apps on their smart phones and other devices. Health literacy and skills in utilising modern ICT tools should also be taken into consideration in a strategic and forward-looking way.

## IMPROVING ADHERENCE TO LONG-TERM THERAPIES

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A number of rigorous reviews have found that, in developed countries, adherence among patients suffering chronic diseases averages only 50%<sup>7</sup>. The magnitude and impact of poor adherence in developing countries is assumed to be even higher given the paucity of health resources and inequities in access to healthcare. There is strong evidence that many patients with chronic illnesses, including asthma, hypertension, diabetes and HIV/AIDS, have difficulty adhering to their recommended regimens. This results in less than optimal management and control of the illness. Poor adherence is the primary reason for suboptimal clinical benefit. It causes medical and psycho-social complications of disease, reduces patients' quality of life, and wastes healthcare resources. Taken together, these direct consequences impair the ability of healthcare systems around the world to achieve population health goals<sup>8</sup>. In the US, research in 2009 estimated the cost of medicine-related morbidity, including poor adherence, to be as much as \$290 billion annually, i.e. 13% of health spending<sup>9</sup>. Today, with even more complicated treatment regimens, the challenge of treatment adherence will become even greater.

Factors contributing to poor treatment adherence are diverse and involve issues concerning patients, physicians, the health system itself and the industry. For patients, this could be because of insufficient health literacy, a lack of understanding of the treatment requirements and a lack of involvement in the treatment decision-making process, discrepancies between treatment requirements and work/life routine, or difficulties in following routine visits to clinics and specialists. For physicians, this could be due to the prescription of complex medicine regimens, ineffective communication of information about adverse effects, and a lack of understanding of co-morbidities and contraindications due to the

7 — McKee M, Chow CK. Improving health outcomes: innovation, coverage, quality and adherence. *Israeli J Health Pol Res* 2012; 1: 43.

8 — World Health Organisation. Adherence to long-term therapies. Evidence for action. *Telemedicine, Opportunities and Developments in Member States. Report on the Second Global Survey on eHealth. Global Observatory for eHealth Series - Volume 2*. 2003. Available online: [http://www.who.int/chp/knowledge/publications/adherence\\_report/en/](http://www.who.int/chp/knowledge/publications/adherence_report/en/)

9 — NEHI Research Brief, "Thinking Outside the Pillbox: A System-wide approach to Improving Patient Medication Adherence for Chronic Disease." NEHI, 2009

involvement of other physicians and treatments. As for the health system itself, it could be because of limited time per visit, inefficient communication between physicians and patients, limited access to care, and a lack of health information technology. Regarding the industry, this could be because of complex and inconvenient drug regimens and difficult side effects, ineffective physician/patient communication and inadequate education on treatment regimens.

In its 2003 report, the WHO stressed that to address treatment adherence issues, patients need to be supported rather than blamed, health systems must evolve to meet new challenges, and that a multidisciplinary approach towards adherence is needed. This will require coordinated action from health professionals, researchers, health planners and policymakers.

By working together, these key players can initiate a series of comprehensive approaches: training and education programmes should be implemented to increase healthcare professionals' awareness and understanding of treatment adherence issues, especially in light of long-term chronic illnesses. Clinical assessment tools and behaviour change tools should be incorporated into long-term chronic disease treatment and care programmes. Communication and dialogue between healthcare professionals and patients should be improved with greater application of user-friendly eHealth and mHealth technology. Partnerships should be established and fostered between healthcare providers, community and health planners, patients, researchers and pharmaceutical companies to minimise dose frequency and side effects, and best align clinical research and development with patients' work/life routine and behaviour. Given the increasingly complex treatment regimen, these partnerships should also work together to design communication tools and behaviour change programmes to improve communication with patients and support their adherence to the treatment regimens.

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RECOMMENDATIONS

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EMPOWERED  
AND RESPONSIBLE  
CITIZENS ARE  
THE MAIN PLAYERS  
CONTRIBUTING  
TO HEALTHCARE  
SUSTAINABILITY

**ACTING AT EU LEVEL,  
THE ESG CALLS ON:**

The European Commission and European Parliament to drive and adopt new data protection rules and regulations so as to enable appropriate use of data to inform health intervention strategies, while ensuring that patient privacy is protected.

**ACTING AT NATIONAL LEVEL,  
THE ESG CALLS ON:**

Employers to develop employment approaches that allows for flexibility in work schedules for employees who are responsible for caring for their family members living with chronic diseases.

Member States to encourage initiatives that foster the implementation of prevention and early intervention programmes in the workplace.

Member States, with the support of the European Commission, to fully transpose the Directive on the application of patients' rights in cross-border healthcare to improve citizens' access to information on healthcare systems and develop and implement information and education programmes for citizens on medical technologies and care available.

The national Ministers of Education, in the context of prevention campaigns, to integrate early education programmes in school curricula addressing health determinants at early stages in life.

The Ministries of Health and Education to jointly develop programmes aimed at increasing the level of health literacy among the general population. This would be conducive to an improvement in health outcomes and a reduction in healthcare costs.

Member States to foster the development of multidisciplinary partnership and comprehensive approaches between policymakers, healthcare providers, community and health planners, patients, and pharmaceutical companies to address adherence issues with regards to chronic diseases.



ACTION 3:  
REORGANISING CARE  
DELIVERY  
**PART 6**

THE ESG DEFINES REORGANISATION  
OF CARE DELIVERY AS:

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**[ The restructuring of healthcare  
systems in a setting that will meet  
the optimal needs of patients,  
community and clinicians. ]**

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Acute, episodic care models can no longer address the needs of the ageing population. A transition to a chronic care model is required.

The reorganisation of care delivery necessitates the adoption of three strategic pillars:

- › patient-centric integrated care;
- › hospital efficiency;
- › interventions in an optimal setting (from hospital to community).

Patient-centric care should be organised around the needs of the patient in such a way as to make them central to the treatment process. This requires redesigning care models based on a patient's pathway instead of disease specialties and institutional settings (primary care or secondary care). Hospital efficiency requires the application of lean operational processes to generate savings and improve outcomes. Intervention in the most optimal setting means providers must be able to provide acute care to patients at hospitals while providing chronic care at patients' homes and in community settings (such as primary care).

**Primary care is the day-to-day healthcare given by a healthcare provider such as a general practitioner, family physician or nurse practitioner.**

**Secondary care is the health care provided by medical specialists and other health professionals who do not generally have first contact with patients. It includes acute care which is defined as necessary treatment for a short period of time for a brief but serious illness, injury or other health condition, such as in a hospital emergency department.**

**Tertiary care is specialised consultative healthcare, usually for in-patients and is available only after referral from a primary or secondary health professional. Examples of tertiary care include cancer treatment, neurosurgery and advanced neonatology.**

An ageing population and the rising prevalence of chronic disease and high levels of co-morbidity intensify the need for coordination between diagnosis and treatment, between primary care (GP and family practitioners) and secondary care (specialist consultants, hospitals), as well as between different therapeutic areas and disease specialities. This is often broadly referred to as integrated care.

Integrated care, in fact, takes many different forms. In some circumstances, integration may focus on primary and secondary care, and in others it may involve health and social care. A distinction can be drawn between care in which organisations merge their services (horizontal integration), and that in which providers work together through networks and alliances (vertical integration). There are mixed results from research evaluating horizontal integration.

For example, an analysis of cases in New York State in the last 10 years showed that horizontal integration such as hospital mergers and acquisitions resulted in higher prices due to increased provider monopoly. In contrast, there is increasing evidence to show that vertical integration of care, if well planned and well managed, can lead to higher patient satisfaction and better efficiency and outcomes<sup>1</sup>.

Vertical integration can take place at two different levels.

At the macro level, in which providers deliver integrated care across the full spectrum of services to the populations they serve. Kaiser Permanente, a health provider and insurer in the US, offers one of the best examples<sup>2</sup>. Serving approximately 8.9 million members in nine states and the District of Columbia, Kaiser Permanente is recognised as one of America's leading healthcare providers and not-for-profit health plans. Kaiser

1 — World Health Organisation. *What are the advantages and disadvantages of restructuring health care system*. WHO Regional Office for Europe. 2004.

2 — Kaiser Permanente official website. Available online: <https://www.kaiserpermanente.org/>

Permanente uses an integrated structure that allows the health plan, the hospital and physicians and the medical group to work together in a coordinated fashion for the benefit of the patient. This level of integration, supported by sophisticated information technology, means that the patient, along with her/his appropriate medical information, can move smoothly from the clinic to the hospital or from primary care to specialty care. Other important features of the Kaiser Permanente system include an intense focus on prevention, health education and care management.

Compared with the NHS in England<sup>3</sup>, Kaiser Permanente used a third of the bed days for people with common conditions such as hip fracture and stroke. This is attributed to the fact that Kaiser Permanente delivers more care out of hospital in large medical centres and also makes use of step-down facilities e.g. community care and rehabilitation. A key feature of the Kaiser Permanente model is the emphasis placed on keeping members healthy and achieving close coordination of care through the use of electronic medical records and effective multi-organisational team-work. Kaiser Permanente is recognised as one of the top-performing systems in the United States with high levels of member satisfaction and excellent ratings for clinical quality. It is also one of the lowest-cost providers in most of the regions in which it operates.

3 — The King's fund. Integrated care. What is it? Does it work? What does it mean for the NHS? 2011. Available online: <http://www.kingsfund.org.uk/topics/integrated-care>

- SOCIAL PURPOSE
- QUALITY-DRIVEN
- SHARED ACCOUNTABILITY FOR PROGRAMME SUCCESS
- INTEGRATION ALONG MULTIPLE DIMENSIONS
- PREVENTION AND CARE MANAGEMENT FOCUS

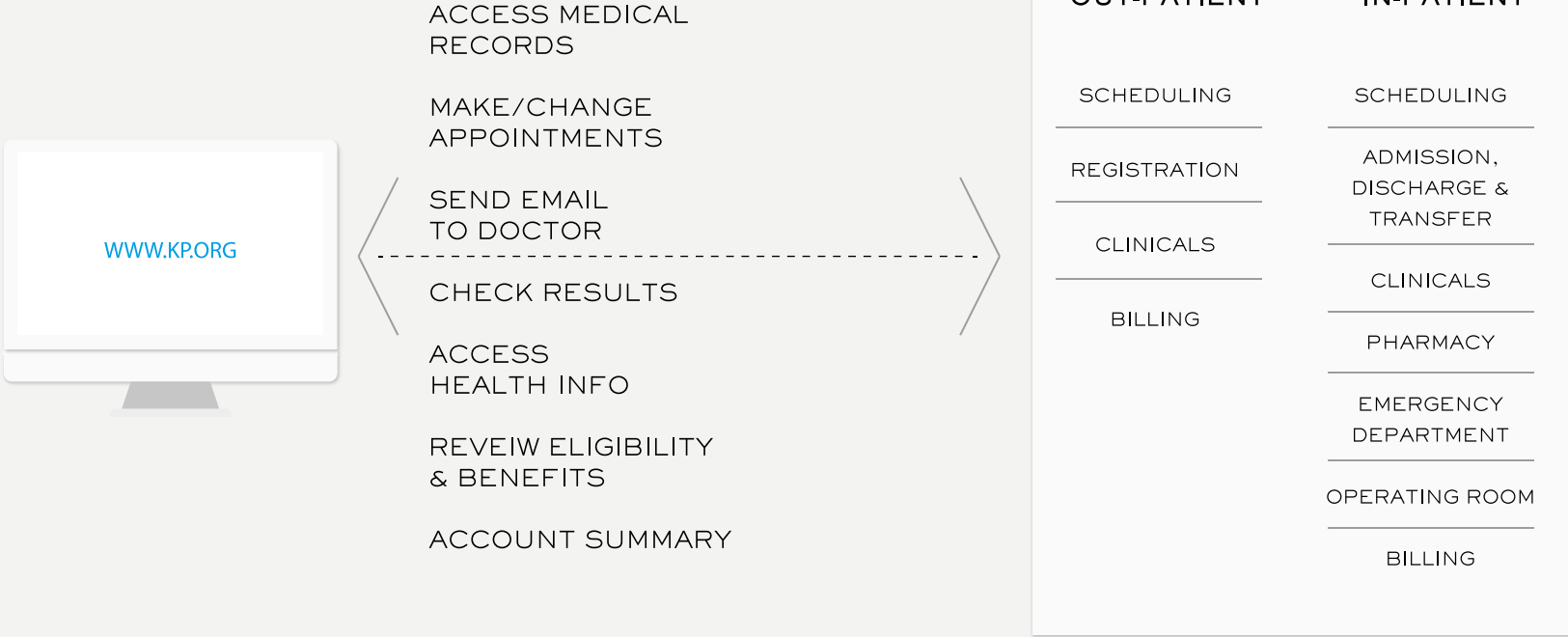


KAISER PERMANENTE DEFINES THE INTEGRATED MODEL OF HEALTH CARE FINANCING AND DELIVERY THROUGH ITS UNIQUE PARTNERSHIP AMONG THREE ENTITIES

[WWW.KAISERPERMANENTE.ORG](http://WWW.KAISERPERMANENTE.ORG)

MEMBER WEB PORTAL

CARE DELIVERY CORE



WWW.KAISERPERMANENTE.ORG

Integrated care can also take place by specialty or target-specific therapeutic area.

This is difficult to establish as it requires the coordination of different organisations, the breakdown of silos, appropriate funding mechanisms and incentives and measurable outcomes. It requires healthcare professionals to change their mind set from treatment-centred to patient-centred care. Successful integrated care models built around patient care pathways deliver improved outcomes and establish chains of prevention, diagnosis, treatment, and care across the system between primary and secondary care providers.

The complexity of healthcare systems in each region and country adds to the challenge of achieving integrated care. It is obvious that there is no single best approach. However, governments and policymakers can learn from the experiences of other systems.

Policymakers need to avoid prescribing what should be done and encourage small-scale testing and evaluation of different approaches so as to achieve the best solution for their system and population.

Transformation to sustainability is dependent on a shift of the treatment and care model from a traditional specialty focus to integrated models.

CASE STUDY

CHRONIC DISEASE MANAGEMENT MODEL  
FOR RHEUMATOID ARTHRITIS IN TURKEY

CONTEXT

Rheumatoid arthritis (RA) and ankylosing spondylitis (AS) are the major chronic musculoskeletal diseases (MSDs) in Turkey, accounting for €4.3 billion in costs associated with disease burden every year. Early diagnosis and treatment of RA and AS are important to impede the progression of the disease, increase quality of life and improve work productivity.

ACTION

The Early Arthritis Clinic in the city of Gaziantep was established to address this issue. By providing family physicians with education and training on rheumatologic disease and inflammatory arthritis and helping them set up their clinics, the Early Arthritis Clinic improved accuracy of referral by over 34%, leading to significant improvements in health system efficiency. The project is currently being scaled up to another rheumatology clinic in the city of Bursa with the endorsement of the Ministry of Health. With

the guidance of the Public Health Institution of the Ministry of Health, family physicians will gain clinical practice at the rheumatology clinic by spending one day with rheumatologists in a real-life setting. This new model will also include a brief patient survey about work absenteeism to better understand the impact of MSDs on workability loss.

OUTCOME

The project is currently being scaled up at another rheumatology clinic in Bursa City with the endorsement of Ministry of Health. With the participation of the Ministry of Health's Public Health Institution, family physicians will gain clinical practice at the rheumatology clinic by spending one day with rheumatologists in real life settings. This new model will also include a short patient survey about work absenteeism in order to better understand the impact of MSDs on workability loss.

**SUPPORTING PATIENT-CENTRIC CARE  
WITH INTEGRATED DATA SETS**

A number of countries are developing policies that remodel care by organising resources around patients. Such an approach can improve care delivery. For example, a primary care professional will tend to rely on their primary care data to assess the patient's history. This should tell them the treatments prescribed, where and how often they have been referred, and the outcomes. Meanwhile, the hospital clinician will tend towards the available hospital data, the community nurse and possibly a locally captured database. The patient will have little information from the various parts of the system. As a result, everyone involved in the patient's care, including the patient, has a different perspective.

If clinicians and patients are to gain a better understanding of their condition, information must be consistent and synchronised. This will be important in empowering patients to be active in their own care rather than being merely beneficiaries of the care system. Data from the Netherlands have shown that patients with access to their data enjoy improved outcomes.

**CASE STUDY**

**HDSP - HEALTH DIGITAL PLATFORM TO SUPPORT THE  
MANAGEMENT OF COPD PATHWAYS - THE NETHERLANDS**

**CONTEXT**

Chronic Obstructive Pulmonary Disease (COPD) is one of the most common and severe chronic diseases in the Netherlands, with over 40,000 new patients diagnosed each year. However, there is a misdiagnosis (under- or over-diagnosis) rate of 30%. COPD often remains undiagnosed for long periods of time due to the absence of symptoms in the early stages of the disease. This failure to diagnose and treat COPD can lead to a more rapid progression of the disease and increased mortality rates. The progress of COPD can be minimised through treatment and avoidance of precipitating factors such as smoking.

**ACTION**

The COPD Diagnostic project is the first HealthSuite Digital Platform project to result from a partnership between Philips and the Radboud University Medical Centre. It is an illustration of the value of Philips' methodology of fast paced co-creation with clinical practitioners, healthcare providers and their eco-systems.

The project has identified two main drivers which increase the accuracy of COPD diagnosis and allow access to appropriate treatment, reduce the burden of disease and thus deliver better value:

- Empower the patient to have access to their diagnostic data
- Continuously monitor the patient for a period of time with wearable and home sensors.

Both care teams and patients can have real-time access to the data. The model can also allow for population health management and care coordination, the remote monitoring of patients' vital signs and health status, the monitoring of hundreds of patients simultaneously and it also prioritises the need for care through data analytics.

**OUTCOME**

Project is in development.

## IMPROVING HOSPITAL EFFICIENCY TO ENHANCE EQUITY OF ACCESS

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Hospital performance is a major issue in all economies. Evidence suggests that efficiency is substantially reduced by inefficient patient pathways and work processes, poor communication, obsolete administrative work and a lack of transparent and systematic outcome measurements.

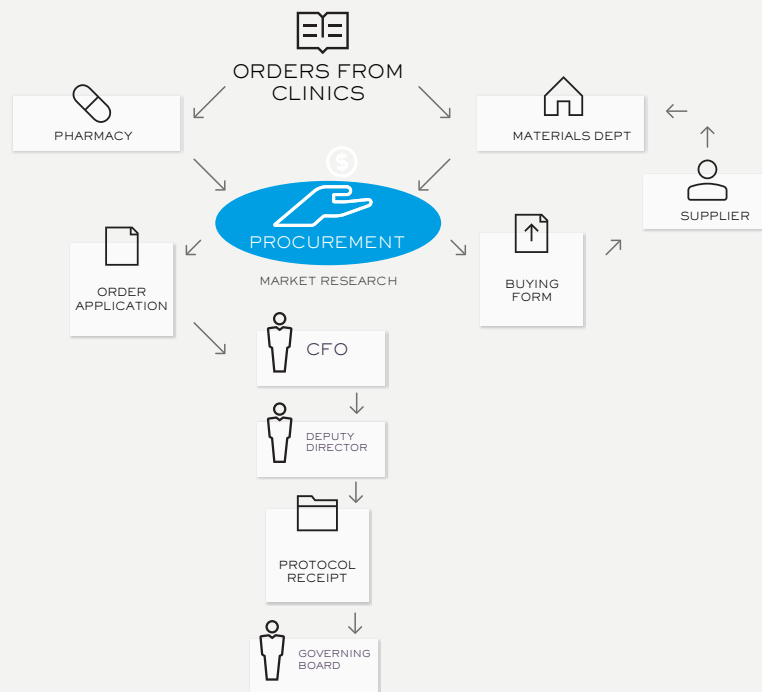
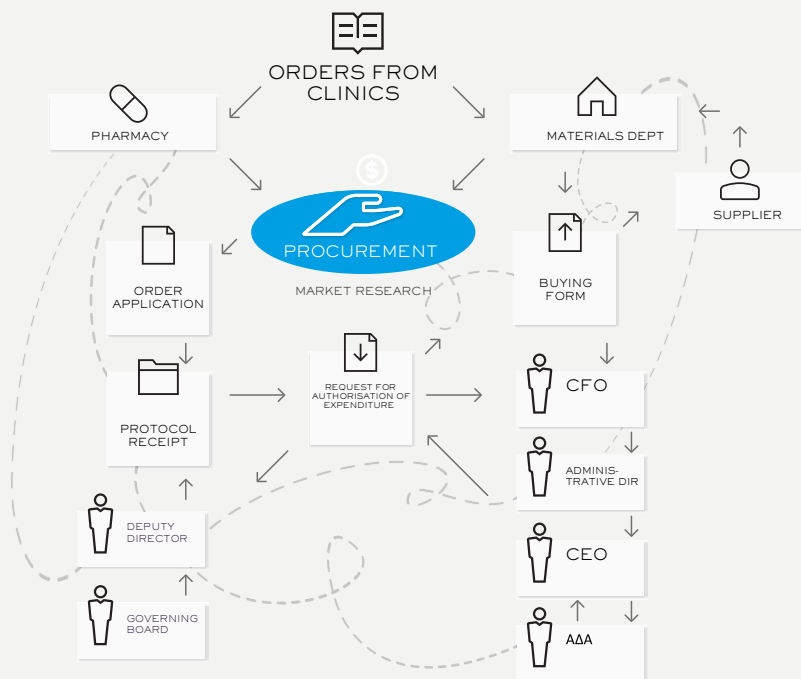
A survey from the Ponemon Institute of more than 400 US healthcare providers entitled, «The Imprivata Report on the Economic Impact of Inefficient Communications in Healthcare<sup>4</sup>» examined the typical communication processes through patient admissions, coordinating emergency response teams and patient transfers. The survey found hospitals' and health systems' workflows wasted a significant amount of time because of inefficient pagers and a lack of secure text messaging, which cost \$1.75 million per hospital and more than \$11 billion industry-wide. The main reasons for wasted time while communicating with colleagues were that pagers were not efficient, text messaging was not allowed and wireless Internet access was not available. The survey also found that web portals, secure text messaging and electronic medical records were the most important tools in helping achieve effective communication among stakeholders.

At the University Hospital of Patras (PGNP) in Greece, in addition to improving the flow of communication, it has been demonstrated that significant improvements and cost savings are possible by applying new organisational and operational processes, introducing a lean supply chain and improving purchasing procurement effectiveness. Following implementation of a lean supply chain, inventory levels at the hospital were reduced by 73%. By improving purchasing procurement effectiveness over a three-year period, €24 m in savings were achieved.

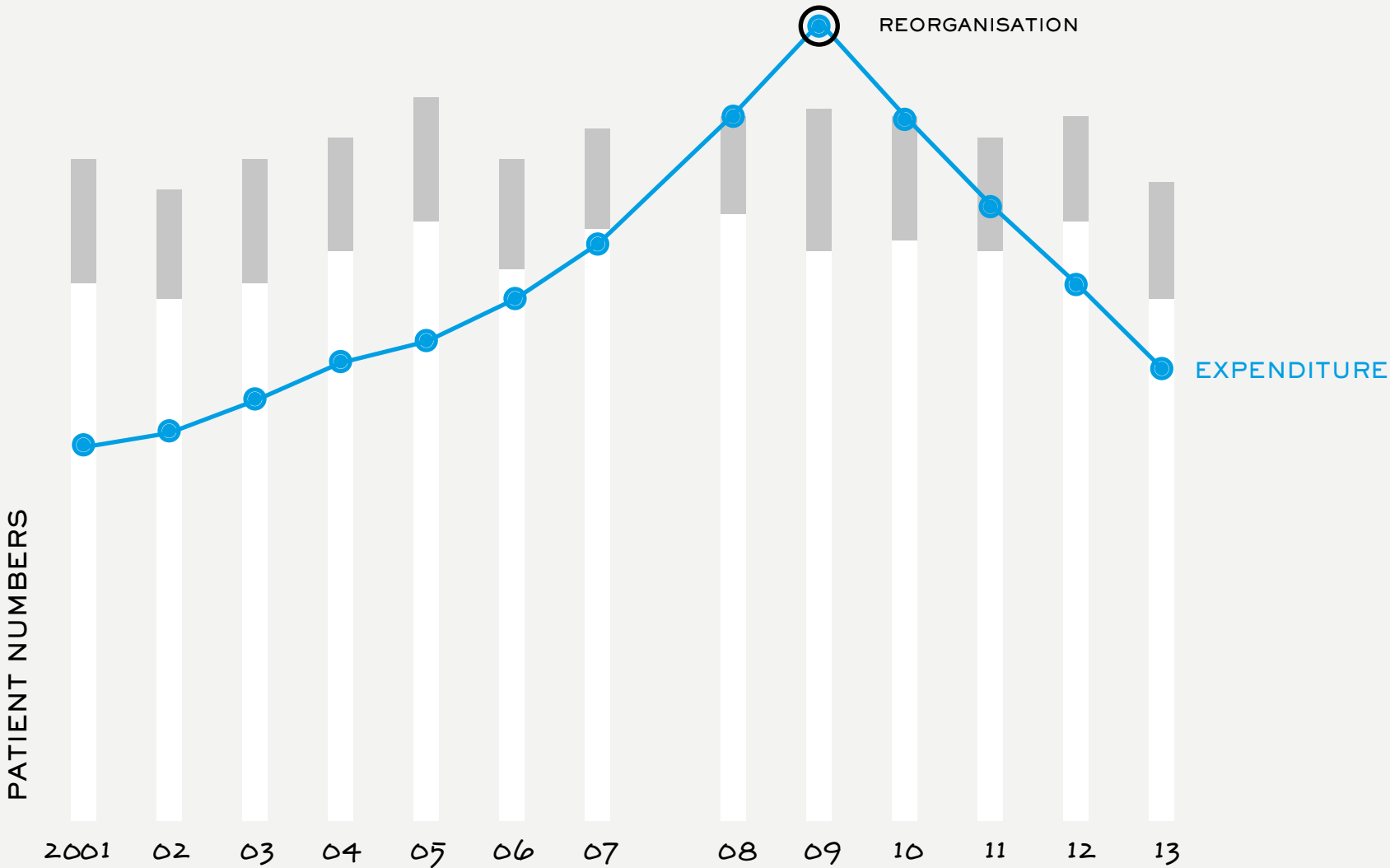
4 — Ponemon Institute. *The Imprivata Report on the Economic Impact of Inefficient Communications in Healthcare*. 2014. Available online: <http://pages.imprivata.com/rs/imprivata/images/Imprivata-Report-on-the-Economic-Impact-of-Inefficient-Communications-in-Healthcare-2014.pdf>

If the PGNP results could be replicated nationwide, a potential of €1bn in savings could be achieved for Greece's National Health System (NHS). By eliminating or redistributing to non-clinical staff nursing tasks which did not add value to patient care or were unnecessary, the hospital could increase the productivity of (800) nurses by 33%. This is equivalent of 264 nurses. If this project was scaled up nationwide, it would produce equivalent services of 7,400 to 12,000 nurses without any additional cost. The scarce supply of nurses in the Greek NHS could be partially addressed in this way.

The hospital management attributed the initiative's success to full transparency and the application of a "bottom-up" management model, instead of the "top-down" approach usually applied in the public sector. The active participation of the hospital staff was also key to the success of this project, and their opposition when restructure and reforms were carried out was addressed and managed effectively.



STABLE PATIENT NUMBERS  
AND REDUCED COSTS



## CONDUCTING INTERVENTIONS IN OPTIMAL SETTINGS: FROM HOSPITALS TO HOMES

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Patient-centric care involves the appropriate setting for prevention, diagnosis, treatment and care.

In the effort to restructure their healthcare system to fit the future, governments and decision-makers should closely evaluate where acute care and chronic care take place, where care is best provided, the facilities that are needed and how assets can be used most effectively. There are many opportunities to move more care out of hospitals and into the community, including the provision of step-down care and rehabilitation closer to home.

One of the key learnings from Kaiser Permanente focuses on bringing treatment closer to home, with clear and systematic incentives aligned to support a focus on prevention and care in the community and home. Healthcare in the home should result in improved cost-effectiveness, reduced incidence of infections and a reduction in unnecessary and expensive interventions. As technology evolves a wider range of interventions may occur in the home. These can be personalised and customised to the individual. Patients report improved quality of life, a feeling of safety, independence, faster recovery and greater dignity.

The shift of care from hospital into the community is a global trend. Some healthcare systems have embraced national reforms, while others have strengthened their community sectors at a national level<sup>5</sup>. Healthcare does not spontaneously gravitate towards a community setting. Without effective policies and leadership, resources will remain hospital-centric, with the associated inefficiency and inequality<sup>6</sup>.

5 — **Royal College of Nursing**. RCN Policy and International Department. *Moving care to the community: an international perspective*. 2013. Available online: [http://www.rcn.org.uk/\\_\\_data/assets/pdf\\_file/0006/523068/12.13\\_Moving\\_care\\_to\\_the\\_community\\_an\\_international\\_perspective.pdf](http://www.rcn.org.uk/__data/assets/pdf_file/0006/523068/12.13_Moving_care_to_the_community_an_international_perspective.pdf)

6 — **World Health Organisation**. *Primary Health Care - Now more than ever. The World Health Report*. 2008. Available online: [http://www.who.int/whr/2008/whr08\\_en.pdf](http://www.who.int/whr/2008/whr08_en.pdf)

The DALLAS programme commissioned by Liverpool Clinical Commissioning Group illustrates the importance of leadership by governments and public health authorities in driving change and transformation.

In addition to the endorsement and support from governments and public health authorities, moving care from hospitals to different settings requires a number of enablers:

- › Trust in the alternative care givers
- › Information technology and equipment availability and support
- › Professional realignment
- › Integration of care providers
- › Engaging patients and carers toward self-management.

There are initiatives across Europe where care that was previously considered hospital care is delivered at home, e.g. monitoring, ventilation, dialysis, chemotherapy and palliative care. Millions of people around the world are monitored in their homes every day. In order to better direct the system toward the implementation of integrated information systems, the redefinition of home care systems and activities in support of fragility, through the adoption of Information and Communication Technologies (ICT), is essential. ICT can make healthcare more effective. It allows for remote diagnosis, monitoring and treatment. eHealth, mHealth and Telemedicine also reduce inappropriate admissions, restructuring the hospital, community health settings, empowering patients and reducing costs<sup>7</sup>. Using mobile health technology has the potential to save an estimated €99 billion in the EU by 2017 and add €93 billion to the GDP of the EU<sup>8</sup>.

7 — **World Health Organisation**. *Telemedicine, opportunities and developments in Member States. Report on the second global survey on eHealth. Global Observatory for eHealth series - Volume 2*. 2011. Available online: [http://www.who.int/goe/publications/goe\\_telemedicine\\_2010.pdf](http://www.who.int/goe/publications/goe_telemedicine_2010.pdf)

8 — **European Commission**. *Green Paper on mobile Health ("mHealth")*. 2014. Available online: <http://ec.europa.eu/digital-agenda/en/news/green-paper-mobile-health-mhealth>

FROM THE HOSPITAL ROOM  
TO THE LIVING ROOM



HEALTHY  
LIVING

Support people to live a healthy life based on personal hygiene and nutrition in a healthy home environment.

PREVENTION

Provide digital solutions to measure, monitor, and motivate people to manage their own health.

DIAGNOSIS

Drive definitive diagnosis, ensuring the right diagnosis is delivered the first time.

TREATMENT

Create new clinical procedures for safer and more effective adaptive therapies.

RECOVERY

Support recovery through monitoring that improves health quality at a lower cost.

HOME CARE

Connect hospital to home to support transitions, independent living and aging in place.

## CASE STUDY

### FROM HOSPITALS TO HOME - HEALTHY LIVERPOOL

#### CONTEXT

The English NHS has undergone significant reform in recent years, with objectives to maximise efficiency, improve quality and create a greater level of integration between the sub-sectors of healthcare and social care. An important element of this has been the drive for patient-centered integrated care. A number of initiatives have sought to shift care from acute hospitals into other settings including primary care, community care and patients' homes.

#### ACTION

Liverpool Clinical Commissioning Group (CCG) has an annual budget of £750m and is responsible for coordinating care for patients in the city of Liverpool.

Liverpool CCG increasingly places emphasis on prevention and community-based care as part of its 'Healthy Liverpool' strategy. The objective is to support elderly or chronically ill patients to look after themselves in their homes allowing the hospitals to dedicate resources to emergency and acute surgical procedures.

The CCG works with Philips Healthcare on the Delivering Assisted Lifestyles Living At Scale (DALLAS) programme which aimed to transform the lives of people through the development and use of innovative technology products, systems and services to improve well-being and increase independence.

#### OUTCOME

The Liverpool project is one of the largest and most successful DALLAS programmes. It has grown steadily to around 700 hundred patients who are elderly or who suffer from chronic conditions such as Chronic Heart Failure (CHF) and Chronic Obstructive Pulmonary Disease (COPD). In 2015 an estimated 1,600 people will be enrolled in the programme.

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RECOMMENDATIONS

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INTEGRATED CARE  
BASED ON PATIENT  
PATHWAYS AND  
CARE DELIVERY  
SHIFTED FROM  
HOSPITALS  
CAN COMMUNITIES  
AND HOMES TO  
FOSTER GREATER  
EFFICIENCIES AND  
BETTER HEALTH  
OUTCOMES

**ACTING AT EU LEVEL,  
THE ESG CALLS ON:**

The European Commission, building on the learnings from the European Innovation Partnership on Active and Healthy Ageing, to define recommendations for national performance indicators for healthcare sustainability. Built into a balanced scorecard, indicators would provide information about the core components of an efficient healthcare system, such as health results and risk factors, direct and indirect costs, quality of care and perceived quality of life. Operational indicators could be added, such as the level of integration of delivery of care at home, the efficiency of use of ICT tools and the share of healthcare budgets dedicated to prevention.

The European Commission to create a platform of exchange for European and non-European countries' experiences in transforming healthcare systems established for acute care into systems fit to address chronic care.

**ACTING AT NATIONAL LEVEL,  
THE ESG CALLS ON:**

Member States to develop guidelines and funding mechanisms to incentivise the development of community care and home care.

Member States to develop integrated care models for major chronic diseases which efficiently link and leverage chronic disease registries.

Member States' governments, healthcare insurers and providers to conduct frequent performance audits in hospitals to identify opportunities for efficiencies, thereby improving the performance outcome of their services.

Member States, along with appropriate training programmes for healthcare professionals, to develop and implement national health information technology (ICT) strategies and action plans — including the deployment of eHealth and mHealth applications — to improve treatment and care efficiency and outcomes.



# CONCLU- SION



PART 7

CONCLUSION  
PART 7



## SUMMARY

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This White Paper has outlined the significant challenges facing European healthcare systems. The combination of ageing populations, rising rates of chronic disease and increasing healthcare costs could lead to healthcare rationing if tangible actions are not taken and paradigm shifts are not made from acute care to chronic care.

Building on the work of country affiliates of AbbVie and Philips, the ESG has formulated a set of recommendations based on concrete pilot projects that have had demonstrably positive impacts and that can be scaled up to create sustainable improvements across Europe.

The main recommendations of this White Paper are as follows:

1. *Smart health expenditure can be an investment rather than a cost: investment in prevention and early intervention is essential for healthcare sustainability and socioeconomic development and stability;*

2. *Empowered and responsible citizens are the main players contributing to healthcare sustainability;*
3. *Integrated care based on patient pathways as well as shifting care delivery from hospitals to communities and homes fosters greater efficiencies and better health outcomes.*

## THE NEXT STEP

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While these are apparently logical changes, they are not necessarily easy to implement. They will require concerted efforts from governments and key stakeholders. The conversation cannot stop here—we are just at the beginning of the journey to transform European healthcare systems so as to preserve them for future generations.

And while this White Paper serves as a starting point, it does not and cannot solve the potential crises ahead. The ESG would like to encourage governments, social insurers, healthcare professionals, patient organisations, academia, non-governmental organisations, the pharma industry and other stakeholders to work in partnership, to continue to seek innovative ideas that will drive positive changes.

One of the most important lessons we have learnt from the pilot programmes across Europe is that quite often the best ideas come from the bottom up. Therefore we must encourage those who are face-to-face with patients, their families and carers to share their best practices and to drive change by putting their experience and knowledge to use.

## THREE KEY LESSONS

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Aside from the recommendations that the ESG has formulated, there are three other fundamental points that must be remembered:

1. *Health is wealth*: supporting healthy citizens to have access to high-quality care must remain a top priority for Europe. We must never lose sight of our primary goal: ensuring the well-being of citizens and securing healthcare systems for those that need them
2. *There is no one-size-fits-all solution*: rather than wait for the one magic formula or solution, governments and policymakers should actively encourage and support innovative initiatives, reward excellence and achievement, and scale up successful projects.

3. *Success will require testing, learning and refining:* Not every idea will work in every country; however every country can and should contribute its own ideas, pilot programmes and innovations to the larger conversation. Exchanges between different countries on successes and lessons learnt will lead to broader positive impacts across European healthcare systems.

The ESG is confident that by acting together and applying the recommendations, we will be able to make a concrete contribution and positive impact on the sustainability of our healthcare systems. We look forward to continuing the conversation and witnessing the preservation of the outstanding healthcare systems that have driven prosperity for European citizens in the past, and are certain that with careful thought and reflection these systems can continue to ensure the well-being of citizens for generations to come.

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## GLOSSARY OF ABBREVIATIONS

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**AS:** Ankylosing Spondylitis

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**BMI:** Body Mass Index

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**CHF:** Chronic Heart Failure

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**CCG:** Clinic Commissioning Group

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**CEIS:** Centre for Economic and International Studies

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**CMS:** Centers for Medicare and Medicaid Services

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**COPD:** Chronic Obstructive Pulmonary Disease

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**CSA:** Childhood Sexual Abuse

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**CSO:** Central Statistical Office

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**CSRs:** Country Specific Recommendations

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**DALLAS:** Delivering Assisted Lifestyles Living At Scale

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**EIC:** Early Intervention Clinic

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**ESG:** European Steering Group

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**ESRI:** Economic and Social Research Institute

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**GDP:** Gross Domestic Product

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**GP:** General Practitioner

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**ICT:** Information and Communication Technologies

<b>MSDs:</b> Musculoskeletal Disorders
<b>NHS:</b> National Health Service
<b>OECD:</b> Organisation for Economic Cooperation and Development
<b>PGNP:</b> University Hospital of Patras, Greece
<b>PROMs:</b> Patient Reported Outcomes Measures
<b>RA:</b> Rheumatoid Arthritis
<b>ROI:</b> Return On Investment
<b>SRQ:</b> Swedish Rheumatology Quality
<b>TCD:</b> Trinity College Dublin
<b>TILDA:</b> Irish Longitudinal Study on Ageing
<b>TWD:</b> Temporary Work Disability
<b>WHO:</b> World Health Organization

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