



COCIR White Paper Towards a sustainable healthcare model

COCIR represents the European Medical Diagnostic and Imaging, Electromedical and Healthcare IT Industry.

In the face of continuously mounting pressure, Europe's current healthcare systems are unsustainable. Because European prosperity is dependent on the health of its citizens we need changes in our healthcare systems to improve patient outcomes and maximise economic value. The pressures we see today are set to rise as a result of ageing populations and the changing patterns of disease. Not only are our healthcare systems ill equipped to deal with this shift in demographics and behavioural change, they are also faced with increased public scrutiny and demand for more and better quality services.

If we continue with today's treatment-based healthcare model, the predictions of an unprecedented escalation in costs and demand are formidable. It is therefore incumbent on all healthcare stakeholders to act now together to develop new health strategies that can drive healthcare efficiencies and improve clinical benefit for people and to ensure economic prosperity.

This White Paper sets out COCIR's 5 priority objectives for improving healthcare and which will form the basis for COCIR's engagement with healthcare stakeholders. The focus is to accelerate the adoption of a value-based outcome focused healthcare system built on preventative medicine and earlier diagnosis, utilising best practice and information technology. It is COCIR's intention to drive a work plan to support healthcare reform. This work will support the European Commission's strategic approach for the EU outlined within its "Together for Health" White Paper.

COCIR's 5 Priority Objectives for Improving Healthcare are:

- 1. Focus on disease prevention**
- 2. Encourage 'best practice' patient-focused processes**
- 3. Leverage information technology**
- 4. Speed-up the adoption of new medical methods and technologies**
- 5. Implement value-based outcome focused reimbursement systems**



General information about COCIR:

Founded as a non-profit trade association in 1959, COCIR represents the Radiological, Electromedical and Healthcare IT industry in Europe. As such, our members play a driving role in developing the future of healthcare both in Europe and worldwide. COCIR is committed to supporting its members and communicating with its partners in Europe and beyond on issues which affect the medical technology sector and the health of EU citizens. COCIR also works with various organisations promoting harmonised international standards and fair regulatory control that respects the quality and effectiveness of medical devices and healthcare IT systems without compromising the safety of patients and users. We encourage the use of advanced technology to support healthcare delivery worldwide. COCIR's key objectives include promoting free worldwide trade of medical devices and maintaining the competitiveness of the European health sector.

COCIR Company Members: Agfa-Healthcare, Aloka, Bosch, Canon Europe, Dräger Medical, GE Healthcare, Hitachi Medical Systems Europe, IBA Ion Beam Applications, IBM, Intel, iSoft, Carestream Health, Fujifilm, Elekta, Medison, Philips Healthcare, Healthvision, Siemens Healthcare, Toshiba Medical Systems Europe

COCIR National Associations Members: AGORIA (Belgium), Assobiomedica (Italy), SNITEM (France), ZVEI (Germany), SPECTARIS (Germany) HHT (Netherlands), FENIN (Spain), Swedish MedTech (Sweden), AXREM (UK), FIHTA (Finland), TipGorDer (Turkey)



DETAILED BRIEFING

Healthcare – Vital to Europe’s Prosperity

Worldwide people regard good health as one of life’s most important assets, but it is also essential to the health of a country’s economy. Healthy individuals lead to a healthy society, which in turn leads to higher productivity, an increased supply of labour and sustainable long-term growth. There is therefore a strong case for policymakers to regard expenditure in healthcare as an investment in the health of people, rather than simply a cost, and stimulate investment in healthcare as a means of achieving long-term public health, social and economic objectives.

Healthcare - Current Challenge

Statistics from the World Health Organisation (WHO) document the rise in chronic diseases, in particular, as a significant healthcare challenge. Unhealthy lifestyles, limited health education and social and economic inequalities are all factors driving the increase in obesity and hypertension, which in turn are leading to higher incidences of cardiovascular disease and type-2 diabetes. The long-term treatment of chronic disease is already putting a tremendous strain both on healthcare providers and economic resources. In Europe, chronic disease treatment accounts for over 70% to 80% of healthcare costs¹. But it is not just healthcare systems that will suffer, if action is not taken to address the underlying causes, it is predicted that deaths from chronic disease will increase by 17% over the next 10 years^{1a}. The WHO estimates that if the risk factors associated with chronic diseases were eliminated, at least 80% of all heart disease, stroke and type-2 diabetes and 40% of cancer would be prevented.

Europe’s citizens and policymakers are also becoming ever more concerned about ‘patient safety’. The human and economic cost of avoidable deaths and injuries due to professional error are a dimension that is unheard of in any other industry. Compensating people for avoidable errors diverts scarce funding from the healthcare system.

As the demand for more and better health services increases, spending on healthcare will continue to grow significantly faster than GDP. It has already reached 9% of GDP in Europe², and in OECD countries (a large proportion of which are European) it has been estimated that it will reach 16% of GDP by 2020³. Today the vast majority (97%) of the health services budget spend, across the OECD Member States is devoted to healthcare and treatment, with only a mere 3% spent on areas concerning prevention and protection. DG Sanco also recently recognised this disparity in their White paper outlining the health strategy for the coming years, and called for the close cooperation between Member States to advance the health sector which has importance not only to the wellbeing of citizens but also national economies^{2a}.

These figures represent a very serious challenge to the sustainability of current health and social welfare systems in all European countries, and the need to take counterbalancing action to improve the quality, productivity, effectiveness and efficiency of healthcare delivery has never been more imperative.

¹ WHO, Gaining Health, The European Strategy for the prevention and control of noncommunicable diseases

^{1a} World Health Organization, 2006

² European Commission DG Information Society & Media, eHealth Taskforce report 2007 Composed in preparation for the Lead Market Initiative: Accelerating the Development of the eHealth Market in Europe

^{2a} EU Commission, Together for Health: A Strategic Approach for the EU 2008-2013, 2007

³ Price Waterhouse Coopers, HealthCast 2020: Creating a Sustainable Future, 2006



Healthcare – Paradigm Shift Needed

Move to preventive and integrated care delivery. In the long term, the traditional healthcare delivery model, built around dealing with acute episodes and paying proportionately little attention to prevention, will no longer be sustainable. Prevention, early detection and the development of patient centric integrated care models will be the key to helping citizens enjoy healthier lives, and to boosting economic growth.

Prevention means more than following 'healthy living' ideals such as avoiding obesity, eating a Mediterranean style diet, being physically active, drinking alcohol in moderation and not smoking. It includes the early detection of major illnesses such as cardiovascular disease and cancer, the reduction of acute care associated with complications in chronic diseases, and a much more comprehensive approach to addressing medical/medication risks and adverse events.

Despite being vital to the future health of our society, prevention is only one phase in a care cycle that also includes diagnosis, therapy, rehabilitation, long-term care and monitoring. Each of these care cycle phases, as well as the continuum of care as a whole, needs to be optimised with citizens/patients placed firmly at the centre of things. Working towards such a continuum of care will require a major shift from delivering treatments to the sick to maintaining the health of the well.

Citizens and patients need to be put at the centre of all future care initiatives. Just as importantly, they need to be empowered to take an active part in managing their own health. On the healthcare provision side of the equation, healthcare providers and payers need to be rewarded for keeping people healthy rather than having their role restricted to the delivery of (acute) care to the sick that is paid for on the basis of procedures performed rather than outcomes achieved.

Successful examples of healthcare systems that are adopting this approach include the 'Kaiser Permanente' integrated managed care organisation in the US and some of the physician networks currently operating in Valencia/Spain, Switzerland and Germany. Another example of very successful preventive medicine comes from Finland where reductions in mortality among men attributed to cardiovascular disease of ~65% and lung cancer of ~60% have been achieved.⁴

At the same time, the potential to improve quality of care and drive cost efficiencies through the use of new and innovative technologies in areas such as imaging, healthcare IT/eHealth, minimally invasive surgery and molecular medicine has never been greater.

Through focusing on 5 priority objectives for healthcare, each representing major areas of opportunity, it is COCIR's intention to drive a work plan to support healthcare reform. This work will support the European Commission's strategic approach for the EU outlined within its "Together for Health" White Paper.

COCIR's 5 Priority Objectives for Improving Healthcare:

1. Focus on disease prevention
2. Encourage 'best practice' patient-focused processes
3. Leverage information technology
4. Speed-up the adoption of new medical methods and technologies
5. Implement value-based outcome focused reimbursement systems

⁴ Pekka Puska, Successful prevention of non-communicable diseases: 25 years experiences with North Karelia Project in Finland, Public Health Medicine 2002, 4 (1) 5-7



1. Focus on disease prevention

Invest in and incentivise disease prevention programs, on the basis that prevention is better, and nearly always cheaper, than cure. Health promotion and prevention will become vital and the role of the primary care physician as the care co-ordinator and gatekeeper of more targeted care will be furthered by the introduction of better screening and IT.

The priorities of value-based outcome focused healthcare systems should be disease prevention and earlier detection. First, because it encourages individual ownership and imparts a sense of responsibility for health, secondly it eliminates patient suffering and thirdly it maximises economic benefits.

The concept of preventive medicine entails: programs for population disease risk stratification, (Dr. Vilmundur Gudnason analysis about "stratification for risk prediction", Iceland Heart Association,) leading to appropriate screening and early detection of disease; avoidance of medical errors; improved management of chronic conditions to avoid costly acute intervention; and better health education and promotion to enable people to take more control and responsibility for living healthy lifestyles. All these initiatives need to become an integral part of overall healthcare and should be reimbursed according to their level of success.

Greater emphasis on prevention and earlier diagnosis is key to increasing people's quality of life and to delivering economic benefits of healthcare. A healthy workforce contributes substantially to GDP, (Marc Suhrcke analysis "The economic argument for investing in health" from WHO), and therefore helps to boost the economy. Employers have a vested interest in efficient healthcare systems, particularly in relation to prevention, firstly because in many countries they make a significant financial contribution to the cost of their employee's healthcare, and secondly because a healthy workforce has a positive impact on productivity. A 2007 PriceWaterhouseCooper study, presented at the World Economic Forum in Davos, stated a likely annual return of investment in prevention for their workforce of three to one or more^{3a} due to increased productivity. A greater coherent engagement of employers in prevention would not only make financial sense but importantly send a strong message of commitment to healthcare authorities and potentially increase employers' influence on healthcare spending decisions.

2. Encourage 'best practice' patient-focused processes

Integrate clinical excellence and technological innovation into disease-specific care pathways - Stroke, Cardiovascular, Diabetes, Cancer etc that address the entire cycle of patient care, from prevention, diagnosis, treatment, rehabilitation and after-care, Establish, measure and communicate 'best practice' at every step in these care pathways to enable continuous optimisation based on the latest clinical knowledge and the availability of innovative new medical methods and technologies.

As pressures on healthcare systems grow from having to cope with acute infections and communicable diseases, to having to cope with more chronic disease management, so the approach to caring should evolve. Much of today's healthcare remains fragmented, comprising islands of information and clinical excellence but lacking the interfaces needed to seamlessly link them into effective care cycles. More emphasis on patient-centred care with a focus on multidisciplinary team approach with the creation of more appropriate integrated care practices might be part of the solution, but would require greater integration of healthcare provision.



Any improvement in information transfer, combined with a reduction in professional barriers, would greatly assist the exploration of new models of integrated care. These changes would require better models for payment schemes to be devised and evaluated to foster better integration of care to transform today's fragmented health-care delivery.

3. Leverage information technology

On the basis that clinical care needs to be disease and patient specific, we need to build an IT infrastructure in every European country for patient records, clinical decision support and disease management programs. Such systems, when in place, must have the capability of exchanging data with each other, certainly at least at the country level.

The January 2006 AHO Report on "Creating an Innovative Europe"⁵ explicitly acknowledged the importance of information and communication technologies (ICT) in tackling specific challenges within the healthcare sector, and thus identified eHealth (also referred to as ICT for Health) as an example of a key area where a market for innovation can operate and public policy can have a significant role. The EU Commission subsequently proposed a new Lead Market Initiative aimed at accelerating the development of eHealth

eHealth applications and infrastructures have been developed and tested throughout Europe for at least a decade in isolation (creating today's interoperability challenges). In some countries, notably the Nordic countries and the UK, applications such as e-prescribing, electronic patient record systems and IT-supported screening and disease management programs are already up and running, achieving good results. However while the potential benefits of eHealth are enormous, a number of barriers continue to hinder the introduction of Health IT and eHealth solutions, or prevent them from achieving optimal benefits.

Defining a coherent vision of eHealth and overcoming eHealth governance fragmentation at all levels are crucial. This would need to address sustained financing as well as new business models and reimbursement mechanisms for eHealth, introducing financial accountability across the complete care cycle.

It is also extremely important that all of these eHealth programs are of immediate, tangible and significant benefit to clinical staff and patients. Providing clinical evidence, documenting outcomes, and understanding how technology affects the relationship of confidentiality and trust between physicians and their patients are all essential requirements.

Ultimately these programs must also be rolled out and interoperable across countries and regions, and Europe-wide. **Firstly**, because the increased mobility of Europe's citizens (for example, enabled by the free movement of labour within the EU) will require patient records to be available anywhere in the European Union. **Secondly**, because increased competition between regions in the provision of high quality healthcare services, brought about by greater transparency in the quality and cost of care, will result in much greater movement of patients between different countries' healthcare systems. **Thirdly**, because best-practice clinical pathways will need to be universally adopted throughout Europe. **Fourthly**, because the lack of demand for interoperability the market in Europe is fragmented, resulting in many small, differentiated markets and inevitably results in a lack of economies of scale for companies which offer eHealth-related goods and services. This in turn leads to higher costs for all concerned, and a slow take-up of eHealth solutions as experience is transmitted slowly between markets in different countries. **Last but not least**,

^{3a} World Economic Forum, in cooperation with PriceWaterhouseCooper, Working towards Wellness, 2007

⁵ Esko Aho, Creating an Innovative Europe: Report of the Independent Expert Group on R+D and Innovation Appointed Following the Hampton Court Summit, available at: http://ec.europa.eu/invest-in-research/pdf/download_en/aho_report.pdf



resolving the interoperability challenge requires convincing medical professionals of the benefits of Health IT. The medical profession needs to agree on a common way to describe diseases and workflows, and politicians must set frameworks for incentivising and funding Health IT.

4. Speed-up the adoption of new medical methods and technologies

Innovative methods, technologies and IT-supported processes have proven their ability to enhance the efficiency of medical care. Yet the pace of technological change now far outstrips the pace with which new technologies enter into clinical practice and benefit patients.

Industry and Government departments responsible for regulation and reimbursement policy need to explore new initiatives directed at more rapid translation of technological innovation into patient benefits and healthcare efficiency

The positive impact that technologies such as CT (Computed Tomography) and PET/CT (Positron Emission Tomography/Computed Tomography) are now having on cardiac care and cancer care is evident. Other technologies with similar patient benefits are being developed and the speed at which they can be adopted requires dramatic acceleration. An environment where it takes ten or more years to derive the clinical benefits and economic efficiencies from new methods and technologies is a concern to patients, healthcare providers, and innovative industries alike.

Speeding up the translation of new methods and technologies into clinical practice will benefit:

- patients, because of earlier diagnosis, less disease burden and better outcomes;
- healthcare professionals, because of higher patient throughput and faster/safer decision-making;
- healthcare systems implemented by payers and governments, because of the potential to drive cost efficiencies.

The EU also has a long-term role in establishing minimum standards in areas relating to patient safety. There is existing legislation and standards in areas such as drug safety, clinical trials and medical devices and these will continue to evolve. One area however, that COCIR sees as requiring some scrutiny relates to the standards of maintenance and servicing of installed medical equipment. This equipment must meet rigorous safety tests to be manufactured and used, but there are no qualifications or requirements imposed upon the persons responsible for servicing and maintaining it in the hospitals or clinics.

5. Implement value-based outcome focused reimbursement systems

Establishing a move to preventive medicine and more integrated care delivery is hampered by today's fragmented healthcare systems and procedure-based reimbursement mechanisms (fee for service).

Today's healthcare professionals are incentivised mainly on the basis of the individual services they deliver or the individual procedures they perform. In some cases, this has led to the over-deployment of services rather than the optimum use of resources. In order to allocate the resources of physicians and healthcare professionals in a way that optimises patient outcomes, a greater transparency in the quality and cost of medical services is essential.



Reimbursement schemes that recognise the necessity of optimizing processes throughout the continuum of care will encourage technological innovations, and incentivise faster adoption of techniques. Techniques that provide better patient outcomes should be implemented, instead of continuing with a system where remuneration is based on individual services/procedures. Priority should be given to schemes that transfer more of the long-term morbidity risk to physicians, by basing payment on the planning and implementation of comprehensive treatment paths per case, or to schemes that offer up-front payments including incentives for keeping specific populations healthy.

Healthcare – Forward Together

The impact of adopting preventative medicine will be broad. Health is an individual's most important asset as well as being an economic growth driver. Investing in value-based outcome driven healthcare systems, focused on prevention and early diagnosis, will be a source of competitive advantage. With the potential to progress both of these major political goals all stakeholders in the healthcare chain (from policymakers to end users) need to adopt initiatives that will provide the necessary organisational, financial, legal and technical frameworks.

Key to meeting the challenges described in this paper is the need to change and re-engineer processes in healthcare. Such a re-engineering can only be accomplished if the respective incentives are defined. Only by providing the relevant incentives will healthcare leaders drive the desired, and necessary, improvements in efficiency and patient outcomes.

Healthcare Industry's contribution to the change process

COCIR Members have been active in the healthcare market for over 120 years. In clarifying the position of COCIR Members - based on 5 priorities - this White paper aims to outline a dialogue with stakeholders who share the desire, and recognise the need, to create sustainable healthcare across Europe.

COCIR advocates the development and deployment of sustainable healthcare models, and recognises such moves as being crucial for improving safety, quality, accessibility and efficiency of healthcare in Europe, but also notes that the enormous potential benefits afforded by such actions are being hindered by a number of barriers.

COCIR Members have considerable knowledge in healthcare operations and related processes, and are well positioned to provide a valued contribution to discussions relating to future development of healthcare systems across Europe, balanced between specific care user needs and general requirements of common interest.