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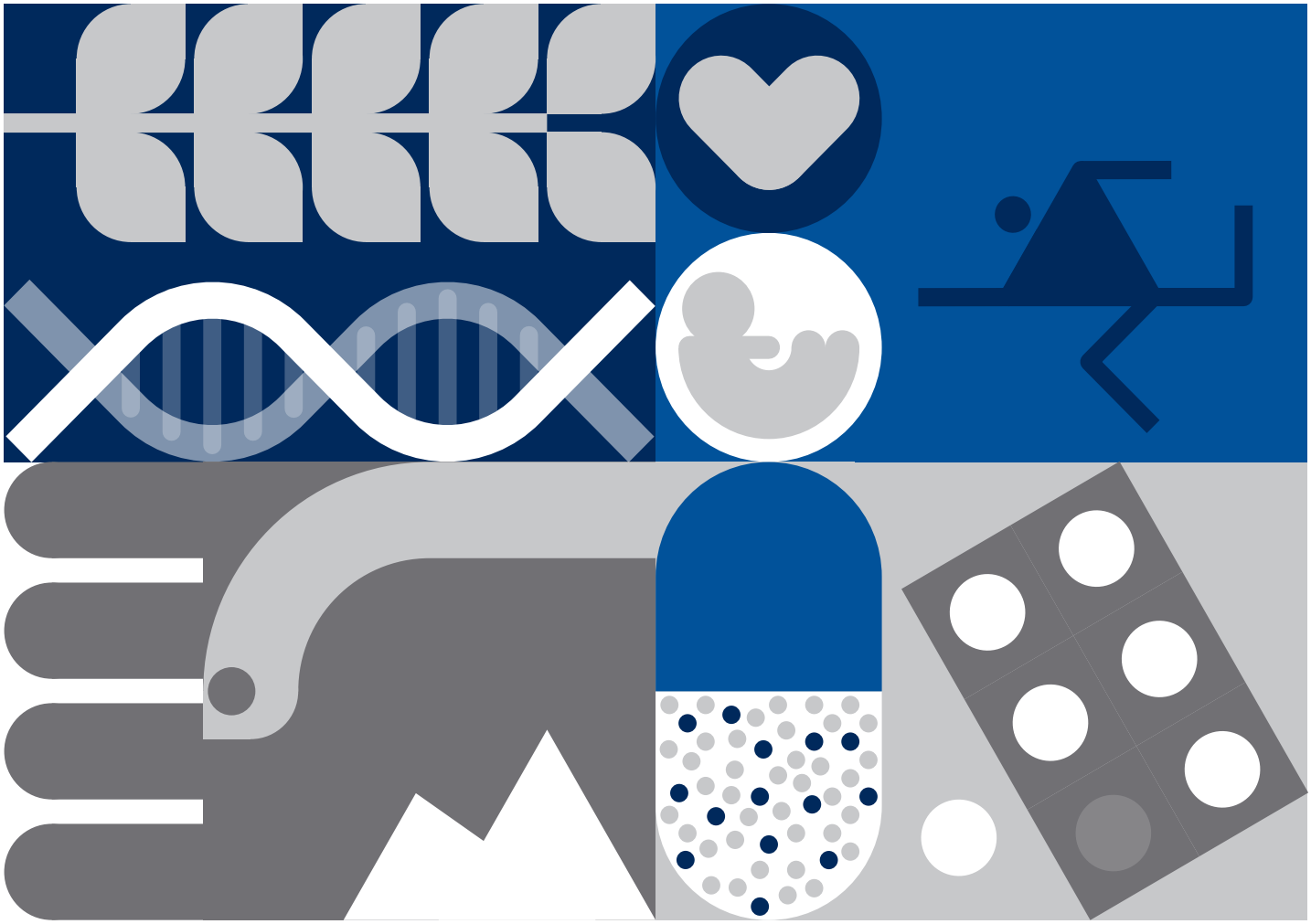
Healthcare Industry 2013

A vision for the Dutch health care system in 2040

Towards a sustainable, high-quality health care system

A report from the World Economic Forum
Prepared in collaboration with McKinsey & Company

March 2013



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Summary

The costs of health care in the Netherlands are soaring. So rapidly, in fact, that if we do nothing to curb them then by 2040 we will be utilizing roughly one quarter of our GDP and one quarter of our working population to ensure provision of curative health care ('cure') and long-term health care ('care'). According to over fifty health care managers and experts consulted, the primary causes of this scenario will be:

- On the **demand side**: an increase in chronic diseases and those related to Western lifestyles, (supposed) right to the best health care, mobilization of latent demand through the introduction of individual budgets ('PGBs') and an ageing population.

- On the **supply side**: expensive new technologies and treatment methods, volume incentives for health care providers and sluggish growth in productivity.

Consequently, Dutch health care will have to become more sustainable. Although health care is one of the reasons behind our improving health, unchecked increases in health care expenditure will not only strain the budget, but will also harm solidarity and social cohesion.

The objective of this report is to contribute to a constructive debate on the future of health care, not by stressing the differences but by showing that there is a high degree of consensus amongst managers in the health care sector. This pertains to both the mechanisms contributing to rises in costs and the **vision of the future of health care in 2040: a high-quality, sustainable health care system.**

Based on interviews and a workshop with over fifty health care experts and managers from the government, insurance companies and health care institutions, the report sets out how health care in the Netherlands might look if we adopt **seven strategies relevant to the Netherlands**: rewarding value rather than volume; making performance transparent; encouraging awareness and independence among consumers; outlining the range of collective services and revision financing; reshaping the health care landscape; focusing efforts on prevention; and showing political leadership

It is a fact that there will continue to be **significant challenges** and uncertainties. Responses to these will partly determine the degree to which we succeed in accomplishing this shared vision:

- Will we remain capable of innovation?

- Will we be able to generate criteria and data in order to manage quality?

- Will we manage to engender sufficient solidarity?

- Will new technologies lead to lower expenditure?

- Will our political leadership be strong enough?

The **high degree of consensus** about the main problems in the current system, and about the ultimate goal aspired to, make it clear that the debate on health care needs to focus not so much on the '**what**' as the '**how**'. After all, not losing sight of our shared vision (as presented in this report) will be an important prerequisite if we are ever to be able to achieve this vision.

1 Introduction

The costs of health care are going through the roof. In the majority of developed countries, health care expenditure has been growing faster than GDP for decades. Even without the pressures presented by an ageing population and the economic crisis, if this trend continues, health care expenditure will reach undesirable and unsustainable levels, somewhere between 30 and 70% of GDP in the second half of this century. If we want to prevent our health care systems from collapsing under the weight of their own success, we will need to temper the increase in health care expenditure to become more in line with the rate of economic growth.

This is not an easy task: changes to health care systems are politically sensitive and complex in terms of policy. Fundamental differences of opinion are quickly encountered when it comes to incremental changes in policy. As a result, we frequently lose sight of the shared vision of the future that often lurks under these ostensibly divergent ideas.

In order to be able to arrive at a widely supported long-term vision of health care, the World Economic Forum convened an international group of thirty experts and leaders from the world of health, based on the guidance of the 'Healthcare Industry Global Agenda Council' in 2011. They drew up an analysis of significant cost drivers in health care, accompanied by a vision on the basis of which we could transform our current health care into a more financially sustainable system, without sacrificing health care quality.

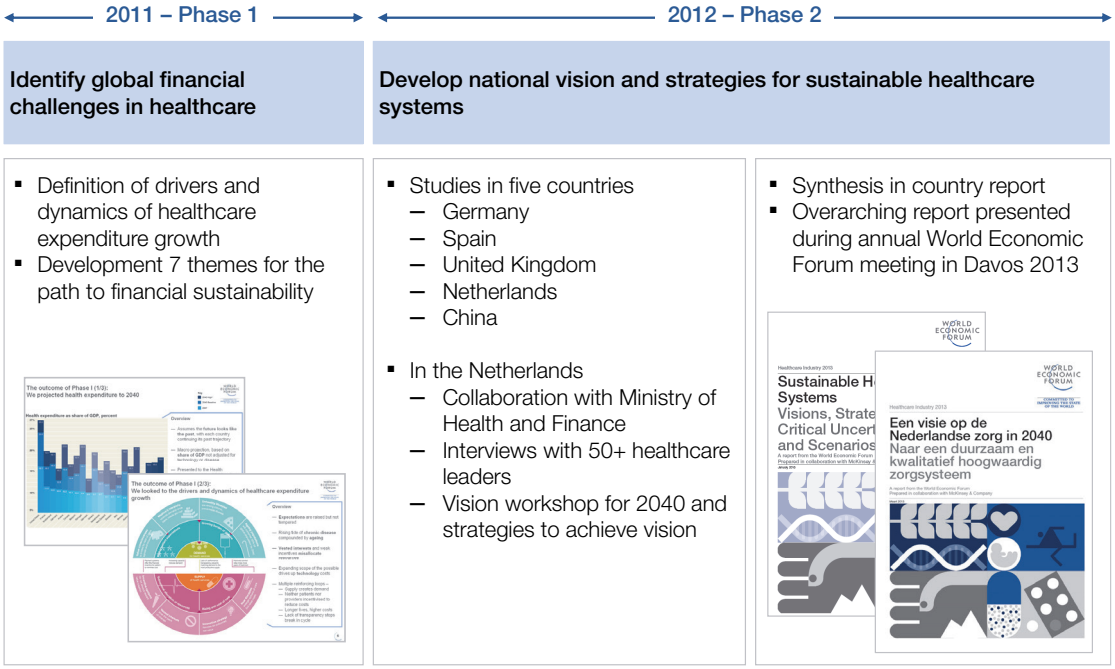
As a follow-up to the 2011 work product that was presented at the Davos Summit, 2012 saw a number of case studies carried out in order to formulate national visions vis-à-vis health care in the year 2040. McKinsey & Company supervised the Dutch study, in which more than fifty health care managers and experts from the health care sector participated. Similar exercises and reports were conducted for Germany, Spain, England and China. The results of this work were presented and discussed at the Annual Meeting of the World Economic Forum in Davos in January 2013 (see figure 1).

Over fifty interviews and a workshop were held, examining the mechanisms in the Netherlands that contribute the most to increasing costs in health care as well as the development of a vision of our health care system in 2040. The interviews and workshop form the basis of this Dutch study.

The objective of this report is to contribute to a constructive debate on the future of health care. It is not a reflection of individual opinions, but reveals the remarkably wide-ranging consensus that evidently exists among government, insurers and health care institutions with regard to what the Dutch health care system

Figure 1

Approach of World Economic Forum study: from global to national



Source: The Financial Sustainability of Health Systems - A Case for Change, WEF 2012

should look like in a few decades' time. As such it offers a shared framework in respect of the 'what' of health care, which could ensure that short-term decisions on the 'how' are made with an eye on a wider perspective.

Dutch health care: successful, but unsustainable

The worldwide trend of rising health care expenditure can also be witnessed in the Netherlands: since 1975, health care expenditure has, on average, increased by 1% more than GDP. Since 2000, Dutch expenditure in health care has increased by an average of 4.5%[1] per annum. This is almost three times more than the growth of our economy. In 2011 we spent 12% of GDP on health care (excluding public welfare: home care and non-medical geriatric care), and a total of 15% of GDP on care (including public welfare).

These expenditures have produced great benefits for us. We fall ill less often, we live longer and we can remain in our homes until an older age. Research and innovation have helped to make once fatal diseases treatable. And if we do end up being admitted to hospital, we are quicker to be discharged: the average length of stay in the Netherlands over the past decade has decreased by 2.5 days, from 8.2 days to 5.8 days[2].

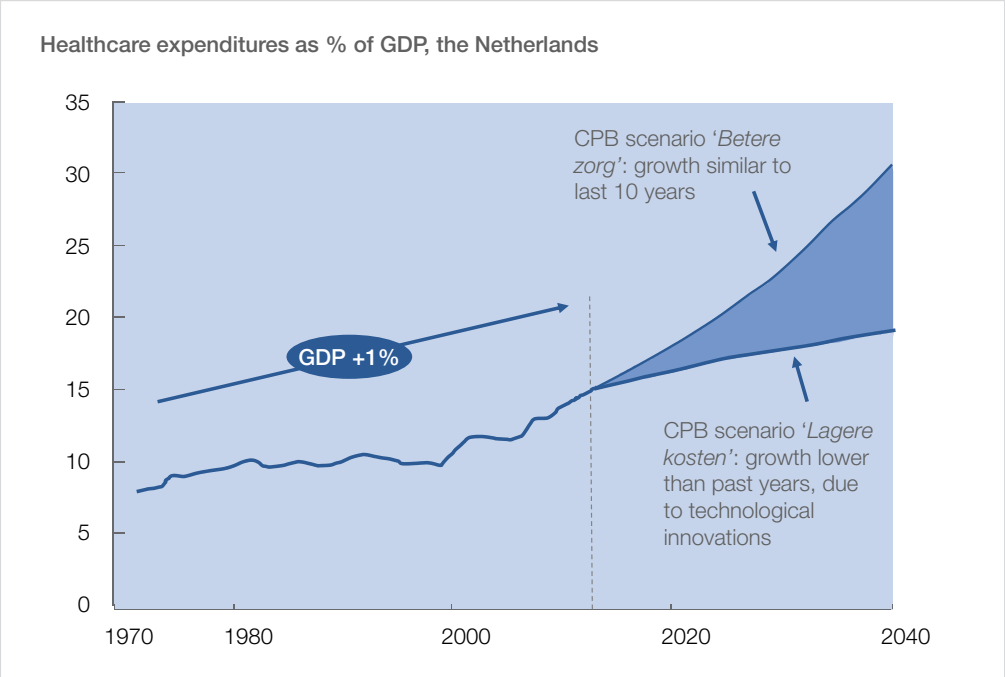
Even in comparison with other developed countries, the Netherlands is performing exceptionally well. The Netherlands has been number one on the Euro Health Consumer Index for years now and is among the top OECD countries when it comes to waiting lists, patient rights and scope and availability of services. Due to the fact that the Dutch health care system was given a radical shake-up with the introduction of regulated market forces in 2006, waiting lists to see specialists are now shorter than four weeks in 77% of cases (the Treek norm for access to polyclinic and diagnostic care) and the waiting time for emergency care is less than an hour in three quarters of cases[3].

However, there is a downside to this success story: our current health care system is not sustainable in the long-term, due to the high costs involved as well as the resources (human and otherwise) needed to provide ever more health care.

According to the CPB (Netherlands Bureau for Economic Policy Analysis), if current trends continue, we will be spending roughly a quarter (20-30%) of the country's GDP on health care by 2040 or 35-50% of disposable income per family, as shown in figure 2. Not everyone will be funding this to the same extent, which will have an adverse effect on solidarity and social cohesion. In its report 'De prijs van gelijke zorg' ('The Price of Equal Health Care'), the CPB observes that the young will pay

1 Adjusted for inflation
2 Coppa Consultancy (2012), *Ligduur monitor 2011*
3 Faber et al. (2011), *International Health Policy Survey 2010*

Figure 2
(Expected) increase in healthcare expenditures in the Netherlands



for the old, the educated will pay for the uneducated and the healthy will pay for the sick. This trend will only be reinforced in the future. At present, for example, four people of working age are paying for each person aged over 65, and due to an ageing population, by 2040 these same costs will have to be borne by only two people of working age.

Not only will a quarter of GDP be needed for health care expenditure, roughly a quarter of the working population will also have to be employed in the health care sector if we continue on our current path. Over the past decade, we have seen a 35% increase in the number of health care providers, amounting to more than one in eight people (13%) working in health care in 2010. Between 2025 and 2030 another 400,000 people will be needed in the health care sector and ultimately, by 2040, at least a quarter of the working population will have to be employed in this sector in order to be able to respond to the demand for health care.

Therefore, it is no surprise that there is already intense reflection in the Netherlands about ways to restore health care costs to a more sustainable level, which is consistent with economic growth. The covenants signed between government, health care providers and insurers in 2012[4] are a case in point. Several stakeholders have also already undertaken initiatives to increase the awareness of this problem and develop solutions towards a more sustainable health system. In their report ***'The medical specialist of 2015'***, the association of medical specialists ('Orde van Medisch Specialisten') describes the role of the medical specialist in the years to come and the clear role they see for them as a controller of healthcare services. A large number of healthcare stakeholders, including providers of cure and care, insurers and patient associations, jointly developed ***'The agenda for healthcare'*** with 9 elements towards a more sustainable health system that balances quality and costs

A special task force for managing health care expenditure has also been created by officials from the Ministry of Health, Welfare & Sport and the Ministry of Finance. A number of its proposed efficiency measures was incorporated into the 'Lenteakkoord' (budgetary agreement) of 2012 and the 'Miljoenennota' (explanatory notes on budgetary forecasts) for 2013: of the €12.4 billion in austerity measures in government expenditure in 2013, €1.4 billion will involve the health care sector. This amount will rise structurally each year, up to €1.6 billion in 2017. This will help to reduce increases in health care expenditure to approximately 2.5% per year. However, this still remains 1% higher than economic growth, which means expenditure will not yet return to a sustainable level.

4 Hoofdlijnenakkoord ziekenhuizen 2012-2015, Bestuurlijk akkoord toekomst GGZ 2012-2015, Convenant huisartsenzorg 2012-2013

2 The current scenario: rising costs in 'cure' and 'care'

It seems obvious that increasing health care costs are linked to the changing composition of the population and rising prosperity. However, this fails to account for a sizeable chunk (€8 billion) of the increase in health care expenditure in the Netherlands between 2001 and 2010.

So what is pushing up health care expenditure? Several developments can be observed on both the supply side and the demand side that offer an explanation. In order to effectively analyze the mechanism responsible for increasing costs, a distinction has been made between two types of health care: on the one hand ***'cure'*** (curative care) and on the other hand ***'care'*** (long-term care under the Exceptional Medical Expenses Act, or AWBZ). ***Cure*** and ***care*** (the latter including ***care*** for the elderly, care for people with disabilities and chronic psychiatric care) involve different cost drivers and thus require different solutions for cost management.

The rise in curative health care expenditure in the Netherlands is similar to the trend in other countries; in terms of long-term ***care***, however, the Netherlands provides a much more extensive collective package and a relatively inclusive set of criteria for patient assessment and subsequent allocation of health care. This has caused costs for ***care*** in the Netherlands to increase rapidly, and for the country to spend considerably more (collectively) on ***care*** than other countries: around €950 per capita in 2009, nearly twice the OECD average Only Denmark and Luxembourg spend more than this (€1140 and €1060 per capita respectively).

The cost of ***care*** are generally driven up by the mobilization of latent demand, partly due to the introduction of individual budgets ('PGBs'), an ageing population and sluggish growth in productivity.

In ***cure***, in terms of the demand side, the consulted health care managers point to an increase in the number of chronic diseases and diseases related to Western lifestyles, more demanding patients who claim health care as an entitlement and an ageing population. The supply side has changed due to more expensive treatment methods, a lack of substitution from old to new treatment methods and the more or less unopposed volume incentives for health care providers.

2.1 Increasing demand for health care

More chronic diseases and diseases related to Western lifestyles

At present, the five main chronic diseases[5] in the Netherlands constitute 15% of overall health care expenditure. The prevalence of these diseases and the associated costs are expected to increase by more than 50% between 2007 and 2025, largely as a result of unhealthy lifestyles. Furthermore, new chronic diseases are developing. These are diseases that were once fatal but that are now treatable (or will soon be treatable) though incurable, whereby people can live longer after contracting them. Examples include COPD, Alzheimer's disease, HIV/AIDS and some cardiovascular diseases.

A good example of a chronic disease that is exerting more and more pressure on our health care system is obesity. Over the past thirty years the prevalence of obesity has increased by 15% and this trend is set to continue. The economic burden of this is substantial. An article in the *Lancet* estimates around €2.5 billion per annum in extra health expenditure in England in the period up to 2030, due to 11 million new obese patients and their associated diseases (diabetes, cardiovascular diseases, stroke and cancer).

(Supposed) entitlement to the best health care

Introduction of greater market forces in the new health care system in 2006 helped to reinforce the position of more demanding patients, and allowed them to opt for the best available health care. In addition, patients are better informed due to the internet and are more actively involved in decisions about their treatment. In this regard they are more prepared to discuss matters with the doctor and ask more readily for a certain treatment

> ***"In the Netherlands, cancer patients with a good level of education and above-average income receive more intensive care and survive longer"***
>
> – Epidemiologist Mieke Aarts, Eindhoven Cancer Registry, NRC 20 June 2012

5 Diabetes, coronary heart diseases, problems with vision, stroke and dementia

or diagnosis. Patients (particularly the more educated among them) see health care as a right and want value for money, which they generally end up receiving. They believe that paying their monthly premium entitles them to all available health care. Whether a (perhaps more expensive) treatment really is worthwhile and will lead to extra health benefits is no longer always the predominant factor when deciding whether or not to deliver it. This is further reinforced by the fact that only a quarter of health care costs is visible to patients by means of their health insurance premiums.

As a result, the volume of health care services is increasing. Thus according to data from the OECD, the number of GP appointments per capita has risen from an average of five to six per year and the number of per annum dentist's appointments has risen from one and a half to two and a half. The number of treatments went up too: a fourfold increase in the number of knee replacements, a twofold increase in the number of cataract operations, 40% more hip replacements and 50-100% more gall bladder removals over the past 15 years. The number of diagnostic tests performed (CT/MRI) also increased by 20-25%.

Mobilization of latent demand, partly due to individual budgets (PGBs)

The initial aim of the Exceptional Medical Expenses Act (AWBZ) was to cover the costs of uninsurable health care, including care for people with disabilities. These costs have risen due to the mobilization of latent demand after the introduction of individual budgets ('PGBs') for health care provision to next of kin in 1996: a growth of 28% per annum between 2005 and 2008. Furthermore, the increase can be partly attributed to the lenient qualification criteria and the generous expenses (also compared to other countries). Prior to the introduction of PGBs, some health care was not paid for, because it was inadequate or not wanted, or because it was provided for free by the social network. The introduction of PGBs enabled people to spend a preset budget on health care themselves, bringing formal health care more within reach, thereby boosting demand. As a result, the total number of people formally requesting health care (via health care in an institution or via a PGB) has risen dramatically: it is estimated that two thirds of the health care costs via the PGB would not have been incurred had the PGB not existed

This system costs a great deal of money, but is also considered a sign of civilization: society cares for people who cannot care for themselves. At the same time many people feel that the PGBs give rise to waste due to money being spent on unnecessary activities

(e.g. 'magicians for the autistic') and that there is potential for savings to be made in such areas.

Ageing population

The number of people aged over 65 will rise by around 70% between 2010 and 2040, but most analyses show that this trend will have a relatively limited impact on health care expenditure: around 20-25% of the overall increase[6]. This is down to the fact that the costs for the elderly still only constitute a limited proportion of overall health care expenditure. Naturally, if we only examine the costs of ***care,*** this impact will be much greater: around 50%. The rest of the increase in health care expenditure is due to the other developments outlined.

Nonetheless, the health care managers do note that in comparison with other countries a substantial proportion of care for the elderly in the Netherlands is paid for through collective services, while in other countries the onus tends to be rather on the individual to save or make other arrangements for old age.

2.2 Increasing supply of health care

Expensive new technologies and treatment methods

Technological developments and innovations increase the number of options available and constantly lower the threshold for receiving treatments. Furthermore, new treatments are often less invasive, resulting in shorter admissions with better outcomes. However, the health benefits that are subsequently realized are diminishing compared to the associated costs (the law of diminishing returns). A few examples:

- Whereas it used to be that treatment of a hip fracture consisted of an X-ray and traction or a screw in the hip joint, nowadays a CT/MRI scan is also performed and the patient is sometimes given a fully prosthetic hip.

- Whereas it used to be that treatment of a heart attack consisted of an ECG, a few blood tests and ultimately cardiac bypass surgery, nowadays it also includes an echocardiogram, heart examination using radioactive substances (cardiac scintigraphy), a CT/MRI of the heart, balloon angioplasty or insertion of a stent.

- Whereas it used to be that treatment of a gall bladder infection or gall stones consisted of an abdominal x-ray with blood tests, a wait-and-see approach and ultimately (sometimes) open abdominal surgery, nowadays an ultrasound or ERCP[7] is also performed, or the stones are removed by means of laparoscopic cholecystectomy.

In addition, the industry is increasingly focusing on 'niche markets', e.g. by developing individual diagnostic tests and treatments for every specific form of cancer. Due to the lower volumes in each of the niches, the costs of these new treatments are often exceedingly high.

When it comes to their introduction, new treatments and diagnostic tests are subject to a policy that is not particularly selective. They seldom replace existing options, but instead come to supplement them, which exerts upward pressure on price.

Volume incentives for health care providers

Macro-level budgets were abandoned when changes to the health care system were made in 2006. On the one hand, this resulted in higher productivity and thus the desired reduction in waiting lists. On the other hand, it introduced structural volume incentives into the system, particularly for doctors. In the past, doctors had to consider options within the bounds of limited, set budgets. Now, they are rewarded for increases in expenditure or volume. This means there is no longer any financial stimulus to say 'no' to a patient.

The pharmaceutical and medical equipment industries, too, are encouraged to develop new treatments and diagnostic tests in order to increase their turnover. Without clear standards for what constitutes an acceptable ratio between health benefits and extra costs, little can be done to stop this. Patients and health care professionals have little or no insight into what health care costs, and have no reason to incorporate price in the doctor-patient dialogue when deciding whether or not to proceed with a diagnostic test or treatment

The various stakeholders in health care, including medical specialists and the current minister of Health, Welfare and Sport, acknowledge that the volume incentives in the current system are undesirable. Nevertheless,

6 Ministry of Health, Welfare & Sports (2012), *De zorg hoeveel extra is het ons waard?*

7 Endoscopic retrograde cholangiopancreatography: an examination to image the biliary ducts

incentives to limit increases in expenditure don't (yet) form a sufficient countervailing force against increased volume incentives.

In the Netherlands, insurers were given a key role in managing health care expenditure, but until recently they were hampered in this role by all kinds of factors and regulations (a limited share of freely negotiable case mixes, providers' entitlement to reasonable compensation without having a contract with the insurer, ex-post settlement of expenses, little transparency in terms of differences in costs and quality between providers). Neither were they yet prepared for their new task during the first few years following the introduction of the new health care system, with the exception of limiting expenditure on medicines.

Sluggish growth in productivity

Although in curative health care the incentives presented by the new health care system in 2006 and technological developments led to growth in productivity, this was much less the case in long-term health care. This is due to the fact that this health care segment is more labor intensive and the role of technology is less significant. Moreover, the benefit from an improvement in productivity for both ***cure*** and ***care***, to the extent that there is any, is not yet being sufficiently converted into lower expenditure or structural budgetary cuts.

3 A widely supported vision of health care in 2040: high-quality and sustainable

The current scenario, with various mechanisms giving rise to increases in costs, is not the only conceivable or desirable scenario for health care. The fifty health care managers interviewed outlined a clearly defined and, to a significant extent, shared vision for the future of health care in the Netherlands as a high-quality, sustainable system, as shown in figure 3. According to this vision, by 2040 the Netherlands should have:

- The **best possible health care system** in the world, one that delivers in terms of quality, accessibility and costs and that contains sufficient incentives for further innovation and continuous improvement
- A system that **maintains a fair balance between costs and returns**, in a way that also preserves solidarity and social cohesion in the long run.
- A system that **provides health care efficiently** in a cost-effective manner, that does the most it can to ensure health benefits, and that entails differentiation according to segments of the population and their specific needs
- A system that **emphasizes health and staying healthy**, with sufficient attention (more than is presently the case) to efficient, effective preventive measures rather than an excessively narrow emphasis on cure

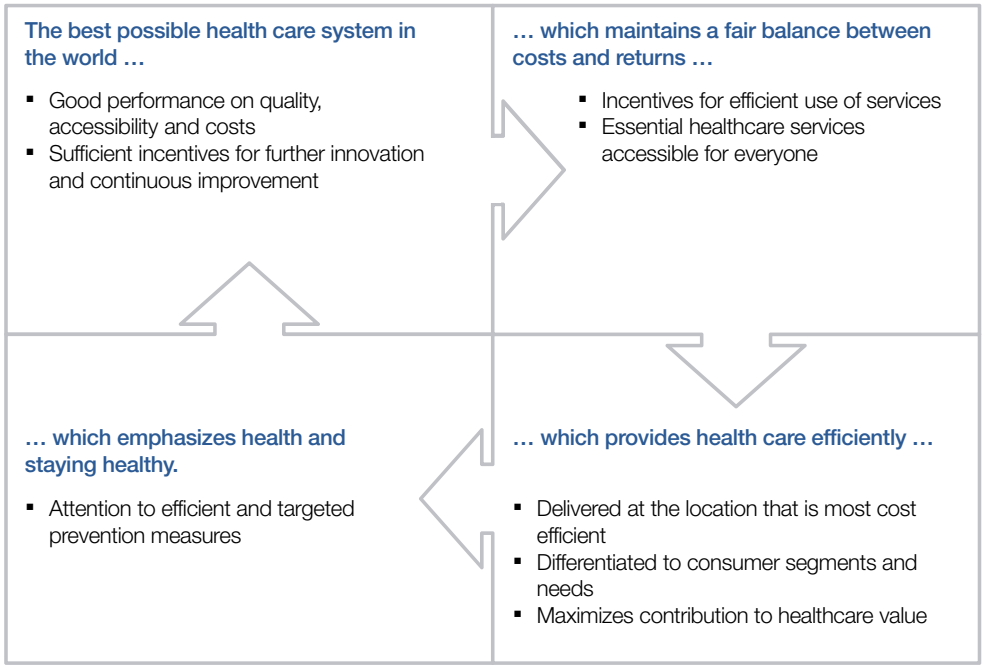
Describing and developing such a vision of the future constitutes a thought experiment in which radical changes need not be shunned. Nevertheless, (nearly) everyone consulted regards new, far-reaching changes to the system as undesirable. The system introduced in 2006 will first have to prove itself, and as is the case for a great many system changes, this will require time for all parties to adapt.

Furthermore, other countries with different health care systems are struggling with similar increases in expenditure for curative health care, so it would appear that the system in itself is not the crux of the issue.

Instead of a new change of system, the interviewees feel that the current system needs to be optimized and concrete problems and obstacles need to be remedied. In order to achieve this, seven strategies can be identified, as shown in figure 4. Some of these strategies are

Figure 3

A vision on the Dutch healthcare system in 2040



Source: Interviews

consistent with the findings of the umbrella report by the World Economic Forum, while a number of them are specific to the Dutch context. Each of the seven strategies directly supports one of the four facets of the vision. For each strategy an outline of the effect of its use on health care in 2040 is presented, based on the input of participants in the workshop and interviews. The initial action steps for each strategy have also been identified.

Strategy 1: Rewarding health benefits instead of volume

By 2040 the Netherlands will have educated **a new generation of health care professionals** who realize that the current increase in health care expenditure is no longer sustainable. The development of clinical leadership and professionalism will already have been part of during their education and training. They will not pass the buck when it comes to responsibility for health care expenditure. Rather, they will be proactive in coming up with solutions in conjunction with other parties in the sphere of health care.

Doctors will be given (or given back) the freedom to determine how a limited budget can best be used to achieve health benefits. This will be possible, because by 2040 it will be more transparent which treatments produce health care benefits and which do not. Discussions on this – including discussions on the use of medical interventions at the end of a person's life – will be held openly and will result in standards that are drawn up and applied collectively and which enjoy more widespread support. When explaining their decisions to articulate patients, health care providers will also be supported by evidence-based guidelines drawn up in conjunction with the **academic world** and the **Quality Institute**[8], from which they will be able to deviate when justified.

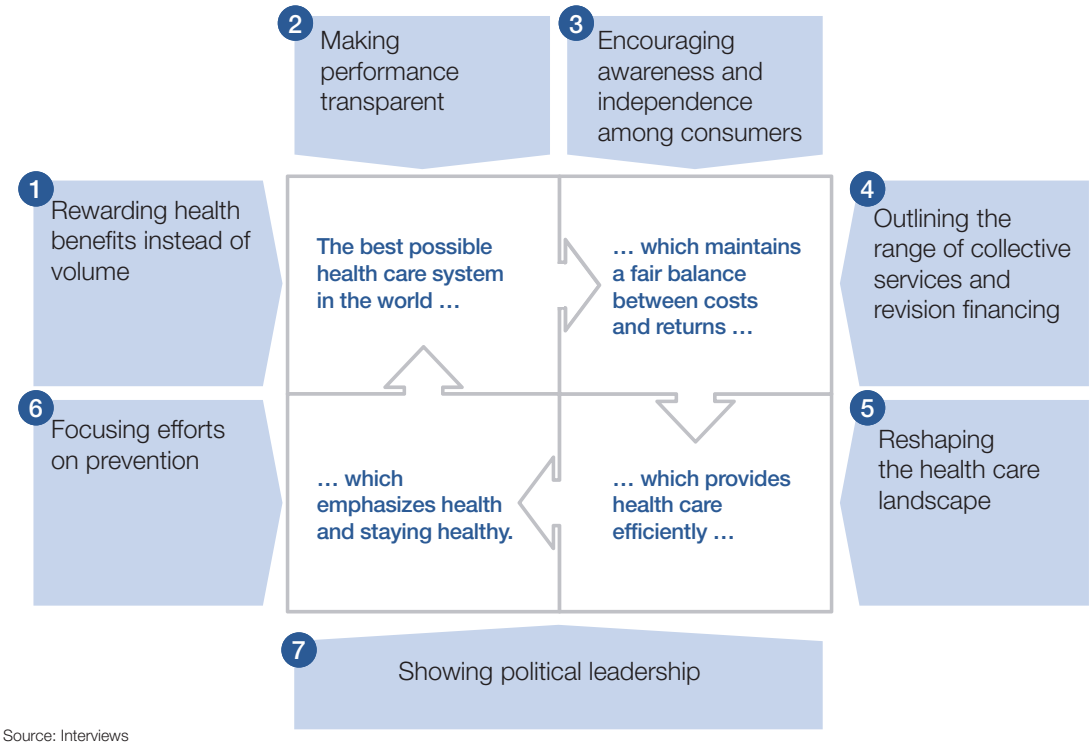
> ***"There needs to be more trust in the professionalism of the health care provider when making decisions, with him being supported by better standards of quality which enjoy more widespread acceptance"***
>
> – Interviewee

The system will reward doctors who select treatments which have sufficient effect in proportion to the costs. Consequently, health care professionals will take on

8 Division of the CVZ which is to be absorbed into the Zorginstituut Nederland by mid 2013

Figure 4

There are seven strategies to achieve the four elements of the vision



Source: Interviews

more of a patient support role, having a great deal of responsibility when it comes to the use of health care that provides maximum health benefits for the individual. They will be given freedom in this respect, but in exchange for this freedom they will need to be able to demonstrate the expected health benefits. This could mean that doctors will be less quick to recommend surgical procedures, or not recommend them at all.

In addition, a proportion of **doctors** have started to work in a more commercially minded manner. This group has concentrated on perfectly executing a limited set of treatments, instead of being a generalist or highly specialized. They will have been able to do this because processes will have been standardized and optimized. This will make the quality of these treatments among the best in the world.

The emphasis on cost-effectiveness will have spurred the **medical industry** to develop more cost-effective treatments and diagnostic tests.

Hospitals will be driven more by (long-term) health results and quality instead of (short-term) developments in terms of volume. **Management** in health care will have dedicated themselves to process improvements and conveying to their staff the need to change. The ultimate changes will have come from health care professionals themselves, after identifying where changes are possible and how these changes might be implemented.

Strategy 1: ***Concrete next steps***

- Modify the **education of doctors** and other health care providers and offer appropriate training about:
  - The purpose and use of quality indicators and evidence-based guidelines
  - Awareness of health care expenditure by offering an insight into the costs of treatment and diagnostics
  - The role of a 'case manager' in managing demand for care
  - Clinical leadership and the implementation of changes on the work floor
- Give a **mandate to the Quality Institute,** as independent and authoritative body (like NICE in the United Kingdom), to create clear standards and frameworks (for example, costs per QALY), with contributions from professional organizations and other stakeholders. Differentiate standards based on cost-benefit analyses for specific patient groups

Strategy 2: Making performance transparent

The availability of reliable data is crucial for the purposes of making accurate assessments as to what the optimum health care is for each patient. The **government, care providers and insurers** will have subsequently invested in creating infrastructure and skills for registering, managing and analyzing data: also referred to as the '*Bloomberg of Health'*. The **government** will have obviated privacy issues using specific regulations.

Uniform standards of quality, guidelines and benchmarks will have been drawn up to enable quantification of quality and costs. As far as possible, these will be evidence-based. The **Quality Institute** will fulfill an important role in this regard in conjunction with **health care providers** and **academic institutes**. They will have allowed themselves to draw inspiration from examples of how measuring costs and quality works in practice in leading clinics in the USA, or closer to home (e.g. the Schön Klinik in Germany)[9]. The standards and criteria have been attuned to those in other European countries, whereby performance and quality-based comparisons have become possible.

> ***"We've got to create the 'Bloomberg' of the health care world to ensure we have the infrastructure, skills and methods to systematically record, analyse and use data to improve health care"***
>
> – Quote during the workshop

The data thus gleaned will be used to make the performance of **health care providers** transparent and accessible to health care professionals and patients alike. This will initially be done at the level of the institution, and later on at the level of the individual health care provider. The majority of interviewees hope that doctors will for the most part be employed by a hospital. Not for the sake of lower salaries (although the current Diagnostic Treatment Combination rates have given rise to

9 There, for example, corrections are made for differences in severity of health care between patient populations by using such frameworks as the ASA physical status classification system (for assessing the fitness of patients prior to surgery) and the NYHA functional classification (for classifying the extent of heart failure in patients and consequent limitations).

unbalanced growth between different specialisms), but because a hospital setting enables a link to be created between salary (or a proportion thereof) and the quality of the performance of health care providers. Improved insights into performance, by analyzing data, will not simply be used to judge doctors but to learn from one another via *benchmarking* and the exchange of *best practices*.

Strategy 2: ***Concrete next steps***

- Within a year, develop a **clear set of quality indicators that are result-oriented wherever possible,** as is the case in England and Sweden, and use them to:
  - Support health care insurers in decisions about contracting health care institutions and the introduction of pay for performance components
  - Offer analysis data to health care providers and information to compile requirements for doctor accreditation
  - Enable the government and companies to offer clear quality-related information to patients
- Invest in **setting up data infrastructure -** *the Bloomberg of Health* - and draw up the corresponding privacy legislation in order to use performance and quality-related data

Strategy 3: Encouraging awareness and independence among consumers

By 2040 the **patient** will be better informed with regard to health and health care. Patients will have information at their disposal about the cost of health care, about where good-quality health care is being provided and about what constitutes unhealthy behavior. This will enable them to make better-informed decisions as to their health care and perhaps to decide to invest their money differently.

Patients will have been given a role in generating and making available data on their health, the quality of their treatment and the extent of their health care expenditure. This will be done by means of a system developed with simplicity and customer focus in mind. Patients will thus have greater insight into their medical files, and will be more involved in the medical treatment plan, similar to the way that internet banking now enables people to have direct access to their financial situation.

With improved provision of information and options comes increased responsibility, both for one's own health and for managing the costs of care. Owing to differences in insurance premiums or compensation due to healthy lifestyle (e.g. membership of a gym or sports club) as well as information and measures to effect changes in behavior, people will feel that they are being rewarded by **insurers** for leading a healthy lifestyle. Consequently, by 2040 they will be living a more healthy life (more exercise, not smoking, moderate consumption of alcohol, healthier diet). This will have resulted in a significant decrease of the incidence of disease such as type II diabetes, cardiovascular diseases, depression and cancer.

In general it holds that by 2040 patients will reflect more on their own future health care expenses and on how they will be able to generate the requisite financial means to fund these, e.g. through 'health care savings schemes'. Consumer involvement in health care will have been further enhanced by **government, insurers** and **health care providers** having enabled new models of ownership. A cooperative model, in which consumers are co-owner or supervisor of the health care providers, will have increased individual interest and involvement in the provision of good-quality health care at an affordable price.

Even the idea that health is an unrestrained entitlement will have been adjusted. It will be less self-evident that patients are entitled to any treatment that happens to be available. The fact that certain treatment options are, technically speaking, available will not provide adequate justification for providing them. There will be increased differentiation on the basis of need and necessity. Patients will be encouraged to consume health care services more sensibly because **health insurance firms** will not reimburse treatments that are deemed ineffective by the protocols or the involved doctors.

With the assistance of health care professionals, patients will reason starting from the perspective of what they are still able to do instead of their infirmities. This will have a beneficial effect on their perceived quality of life. **Health care professionals** will not act primarily or exclusively as a party administering and managing treatment, but will support patients in their efforts to become and stay healthy. They are supported in this by decision support systems. Smart technologies will enable patients and health care professionals to communicate and share information on health efficiently. This will allow senior citizens to continue living at home if offered the required support, and for some patients with psychiatric or behavioral problems to receive better support by being able to follow courses and activities that teach them to cope with their illness or disorder,

rather than immediately being prescribed medication. For the purposes of implementing this, we will have studied successful examples abroad, e.g. the American disease management programs at Kaiser Permanente and Dutch initiatives such as 'VitaValley' and the 'Welzijn op recept' ('Welfare on Prescription') program introduced in Nieuwegein.

> ***"The 'follow-my-leader' effect has led to people claiming the right to utilize all available health care options, even if this doesn't always result in optimum health benefits"***
>
> – Interviewee

Strategy 3: ***Concrete next steps***

- Facilitate **independence and responsibility** among patients by offering an insight into personal Electronic Patient Files, medical files and the aforementioned quality information
- **Introduce (financial) incentives** (rewards for healthy behavior, own contribution) in order to regulate the demand for health care

Strategy 4: Outlining the range of collective services and revision financing

By 2040 decisions will have been made about the (possibly more limited) package of health care that will be covered by the basic insurance. Services that should not actually be covered by the health care insurance or which individuals can easily afford themselves, such as affordable antibiotic treatments, have been removed from the collective funds (with a safety net for those in genuine need). **Health care insurers, pension funds** and financial institutions will have developed ways in which private capital can be mobilized and utilized for funding health care.

In terms of care, there will have been a shift from insuring to saving. A considerable proportion of the costs incurred for care for the elderly can be foreseen. Consequently, these costs shouldn't be considered an unpredictable risk for which an insurance policy would be required. Rather, **health care insurers** and **financial institutions** will have designed new financial solutions. Financing a proportion of health care for the elderly will be separated from health care for people with disabilities, being subsumed to a savings system similar to a pension. As far as possible, elements of health care that do not actually fall under the rubric of health care (such as domestic help, living expenses) will be borne by the people themselves. Considering individuals ultimately differ in the extent to which they will have to make use of health care services, this savings system will include a safety net for those who were unable to make sufficient savings.

> ***"Medicines that make living with the disease possible don't actually belong in the home care insurance package"***
>
> – Interviewee

In terms of curative health care, cost savings will have been achieved by continuing the line adopted by the Health Care Insurance Board (CVZ) in 2012 and 2013. Together with **regulators** and the **Quality Institute**, the insured package will have been limited, the criteria for assessment and admission will have been honed, and exit from the package encouraged. This will ensure that by 2040 the collective insured package of services in the Netherlands will have been brought into line with neighboring countries.

A clear definition will exist for the threshold for including medicines and treatments in collective services, e.g. based on consensus with regard to the value for each 'quality adjusted life year' (QALY). This will also give **pharmaceutical companies, equipment manufacturers** and resource suppliers clarity in advance as to whether or not their products will be included in the basic insurance. Consequently, the **industry** will no longer view the development of advanced treatments as an end in itself but as one of the possible means to deliver better, cost-effective health care.

In addition, **health care insurers and the CVZ will, in consultation with health care professionals,** further specify under which circumstances particular sections of the health care range will be reimbursed. An example of this could be a redefinition of when to carry out percutaneous angioplasty (angioplasty with stent). A distinction could be made between patients who will genuinely benefit from the procedure on the one hand (patients treated within 12 hours of a heart attack) and, on the other hand, patients who will gain little or no benefit (patients with chest pain symptoms, stable

angina pectoris). By no longer providing this treatment to the second group (which is many times larger) from the collective purse, the health benefit per treatment will return from nil or negative to positive territory. By 2040 this will have resulted in greater health benefit per euro invested.

Strategy 4: ***Concrete next steps***

- Make **clear package choices** for cure (in the same way as NICE in the United Kingdom, based on QALYs) and care
- Investigate the feasibility of **alternative financing models** for cure and care (for example, health care saving plans)

Strategy 5: Reshaping the health care landscape

By 2040 there will have been explicit reflection on what kind of health care infrastructure we need for cost-effective provision of health care and where it is needed most. In order to ensure this reshaping of the health care landscape continues to be sustainable in the long run, when issuing credit **financiers** will look critically at whether the new infrastructure is sufficiently flexible to fulfill tomorrow's changing demand for health care (such as the expected increase in the proportion of day treatments).

> ***"We're going to have to get back to having 50 networks instead of the current 100 hospitals offering everything under the sun. We don't have any spare capacity; resources just have to be mobilized differently"***
>
> – Interviewee

In 2040, technological resources will be deployed to deliver a significant proportion of the health care to the increasingly large number of chronically ill patients in or close to their own homes. Local health centers will support people to become and stay healthy, providing an integrated range of services from such professionals as GPs, physiotherapists, dieticians, district nurses and specialists. Consequently, the **health care industry** will have an interest in offering solutions for providing health care close to home.

Consideration will have been given to what minimum integrated health care is necessary in different regions. For example, a hospital in an area that is sparsely populated will require a broader range of health care services to be able to provide the right health care swiftly, but conversely will probably perform less well in some areas. This contrasts with hospitals in densely populated areas, where there is room for more specialized institutions. Complex health care, which requires expensive infrastructure and specialist knowledge, will have been concentrated at national level into a limited number of specialized centers. This will enable resources and medicines to be utilized more efficiently. **Health care insurers** will encourage this differentiation by using available data on quality as a basis for selective contracting.

The general principles, which will have been fundamental when reshaping the health care landscape, include:

- **Concentrating on highly specialized and complex health care** which requires expensive infrastructure and specialist knowledge. At the same time, targeted reduction of hospital capacity (e.g. accident and emergency wards) in areas where this is possible. In this regard, the availability of adequate acute health care (such as accident and emergency and obstetrics) could be taken as a minimum guideline. Simultaneously, cross-border collaboration with European hospitals will result in the exchange of *best practices* and in regeneration within the health care sector
- **Organizing health care for chronically ill patients closer to home** by reinforcing the first line (e.g. integrated health centers with close cooperation between GP, practice support worker, physiotherapist, dietician, district nurse, any public health care service) and increased cooperation and integration with the second line (e.g. more consultation hours with specialists in the first line)
- **Standardizing elective health care services** with specialist or focus clinics impelled by mutual competition to provide the same health care as efficiently as possible
- **Use of technology and resources in the home**, enabling people to take over part of the health care themselves, providing the health care professional with information without this professional having to visit straight away, and allowing proactive action to be taken should there be grounds for doing so. This would enable people to function independently in their

own home for longer and enable specific intervention where necessary

- **Cooperating with health care providers in networks** which are jointly responsible for the health care for a group of patients within their region

> ***"In the future, health care will be available via your mobile phone: important parameters can be sent to care providers, and remote contact with care providers will be cheaper to implement"***
>
> – Interviewee

Strategy 5: *Concrete next steps*

- Use **hospital mergers to re-design** the health care landscape
- Support **specific downsizing or conversion of surplus capacity**
- Focus on **e-Health** in order to offer cost-effective services

Strategy 6: Focusing efforts on prevention

By 2040, the use of gene technology and other technological means will have improved insight into the health risks of individuals and the way in which their health develops. This will enable earlier intervention when there is a risk of a disease or disorder deteriorating. Furthermore, it will enable better forecasting with regard to who is running what health risks and to take action to prevent disease. For example, patients whose condition is deteriorating will be actively approached.

> ***We have to choose a "bottom-up" approach and compile a book of the best examples of prevention so as to feed local authorities with ideas***
>
> – Quote during workshop

A significant proportion of the increase in chronic diseases is caused by consumer behavior and can be influenced by devoting more attention to primary, secondary and tertiary prevention. By 2040 the **government** will have bolstered healthier lifestyles (in relation to diet, exercise, smoking and alcohol consumption) among the populace by means of information and incentives for consumers. Partly as a result of this, numerous successful initiatives will have been rolled out in the Netherlands by 2040, which will have been launched by local authorities and will contribute to the management of health care expenditure.

Cooperation with the **food industry** will have resulted in modifications to the range of foods offered in schools and sports clubs to ensure healthy alternatives are available. Incentives and taxes will encourage producers to invest more in the development of healthier products.

Employers will actively contribute (partly in their own interests) to increasing their staff's health and immunity by playing a role in prevention programs.

Improved understanding of prevention will have made it easier for **investors (e.g. health care providers)** to develop a business case in which it is possible to recover the costs of investments in preventive intervention.

Guidelines for prevention

In the follow-up workshop about this specific topic that we held, health care managers and experts identified a number of guidelines and ideas which could accelerate the process:

- Focus on those conditions that generate the highest costs and develop a differentiated approach
- Look carefully at what measures and approach have what effects and give people access to this information; create a library of best practices
- Mobilize and combine citizen-led initiatives stemming from the community which could produce great benefits from limited investment, and involve the business community in these. In this regard, address them about making communities healthy
- Award a label to schools and local authorities that encourage healthy behavior by promoting healthy eating and exercise. In addition, use the media to generate publicity for prevention
- Ban products that are bad for health or make them much more expensive (incl. smoking, alcohol, sugar, salt, fat)

Strategy 6: *Concrete next steps*

- Develop a **database of proven cost-efficient prevention measures** and make it widely accessible to the public and municipalities
- Start an **education program about healthy behavior** in schools and reduce the availability of unhealthy foods in schools and sports clubs

Strategy 7: Showing political leadership

Politicians avoid that each problem related to health care is raised to the status of a discussion about the system. Instead, by 2040 and together with the various stakeholders in the health care sector, they will have built a widely supported vision about important themes like affordability, accessibility, quality and privacy. This will guide continuity in policy concerning the main topics in health care.

> ***"We need a long-term vision from politicians which we can use like a speck on the horizon to orient ourselves"***
>
> – Interviewee

The role of **government** will be to set the rules of play for the system and to make important decisions for the system. In addition, government will play a significant role in driving the shift in consumer attitudes and behavior. This will be done by informing them about the costs of health care and the importance of a healthy diet and lifestyle.

Important decisions the government will have made will include:

- What health care services will have to remain in the collective insurance package?
- What proportion will patients have to pay for themselves either by means of an excess or self-funding? On what elements of health care are financial incentives effective?
- How should long-term health care be organized?
- How do we expand the role of insurers by means of such things as rewarding efficiency and benefits in terms of quality and increasing financial risk for factors that are under our own control?
- How do we foster the quality of health care and set standards for this?
- How do we boost investment in prevention?
- How do we increase patient responsibility and understanding of the costs of health care among patients and health care professionals?

Strategy 7: *Concrete next steps*

- **Develop a long-term vision** for Dutch health care together with relevant health care stakeholders
- **Do not deviate from the long-term vision** under pressure from lobby groups

4 Five major challenges

Even the greatest degree of consensus regarding the future does not detract from the fact that considerable uncertainty and challenges will remain to achieve the shared vision. A vision can be useful to channel our thoughts towards the most important changes, instead of the most pressing ones. This does not alter the fact that political considerations have an effect on the extent to which any strategy can be implemented (politically or otherwise) and will meet with acceptance. Moreover, health care expenditure is naturally difficult to predict.

For that reason, several factors are put forward by the health care managers as being particularly relevant for consideration, with decisions on these being necessary (where possible). We discern five major issues for politicians and the health care sector, for which the health care sector will have to find an answer in order to realize the vision for health care in the Netherlands in 2040, as shown in figure 5.

Will we be able to generate criteria and data in order to manage quality?

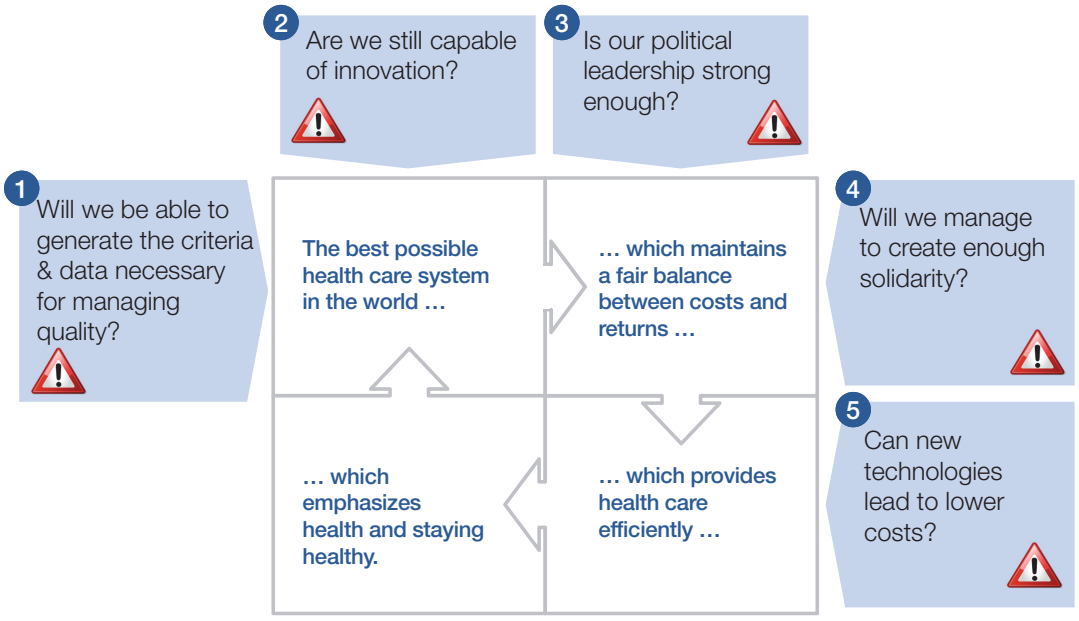
The extent to which it is possible to curb the current, sometimes perverse, volume incentives in health care will (partly) determine the extent to which costs will be driven up further. In this regard it would be logical to make the quality of health care the primary factor, but this will entail certain facilities turning out to be superfluous. One major challenge is to develop quality criteria that establish good health care outcomes and that enjoy widespread support and use in practice. Privacy legislation needed to use the data will also have to be modified.

Will we remain capable of innovation?

Technological developments, insight into genetic factors and research into new treatment methods will make it possible to cure or manage diseases and disorders for which treatment is currently impossible or inadequate. This could exert a great deal of influence on health care expenditure if this is achieved for those diseases or disorders that cost a lot at present or will go on to cost a lot in the near future (e.g. dementia and Alzheimer's, diabetes mellitus type II and coronary heart diseases).

Figure 5

Five important challenges that can prevent the vision to come true



Source: Interviews

Nevertheless, decisions will have to be made in order to manage the rise in health care expenditure. An important question is whether or not investment in innovation will come under pressure as a result. Will enough budget and subsidies be left over in order to support innovations? A balance will have to be found between continuing to stimulate the development of new treatment methods and health care services on the one hand and curbing innovation that produces too little in terms of health benefits proportionate to costs on the other.

In addition, barriers to entry for new players in the market will have to be kept to a minimum, because they are able to offer the much needed innovative capacity.

Will our political leadership be strong enough?

The changes to the system instigated by the introduction of the Health Insurance Act ('Zvw') in 2006, the abolition of the ex-post settlement of expenses for health insurance firms in 2012 and the recent changes to performance-based funding for hospitals require time for the players in health care to adapt. In order to give the sector security and stability, political continuity will have to be offered by following the line of existing policy.

This does not alter the fact that political courage and leadership continue to be necessary: difficult decisions must be made over the next few years, which will be unpopular with the electorate, but which are necessary to keep health care expenditure under control. Examples of this are the curtailing of what is perceived to be an acquired right to the basic insurance package (cf. the famous example of the withdrawal of compensation for walking frames) and changes to and restrictions of long-term health care.

Another example involves the reorganization of the health care landscape, with more networks and greater differentiation in services offered. Health care providers will not be keen to consider themselves superfluous, but the power and influence of government and insurers has, to date, been somewhat limited on this front. It may be that mergers and moves towards partnership between hospitals could offer a solution, provided that the decisions made in this regard can be steered in the direction that offers the best balance for the overall range of services at nationwide or regional level.

Will we manage to engender sufficient solidarity?

The costs and benefits of health care vary considerably from individual to individual, and it is anticipated that these differences will only increase. In consequence, the healthy will be paying for the sick, the young will be paying for the old and those on high incomes will be paying for those on low incomes. If these differences become too marked and the costs take up an increasingly large proportion of disposable income, then the solidarity and social cohesion engendered by the system will be put under increased pressure. In order to maintain good health care for all, then, the majority of the interviewees believe that adequate management of health care expenditure is a precondition.

At the same time it holds that the more services transferred from the collective domain to the individual domain (e.g. from the basic insurance package to supplementary insurance packages), the more chance there is of a social divide coming into being between those who are able to afford more health care and those who cannot.

Will new technologies lead to lower expenditure?

At present, new technologies are (as described earlier) often still used in addition to existing procedures, thereby increasing health care expenditure. If in the future we will be capable of developing technological innovations that are more cost-efficient on the one hand and making existing, more expensive procedures redundant on the other, then this could have a significant impact on cost management. Even the use of more ICT (for example) could generate savings in terms of costs, provided that health care organization and incentives are adapted and the use of technical resources is adequately differentiated according to the needs and options of various patient groups.

Figure 6

Actions for a sustainable health system

	Concrete next steps	Key initiators
1 **Rewarding health benefits instead of volume**	▪ Adapt the education of doctors and other health care providers ▪ Give a mandate to the Quality Institute, as independent and authoritative body, to create clear standards and frameworks	▪ OMS, NFU, VWS, VSNU ▪ Government and providers
2 **Making performance transparent**	▪ Within a year, develop a clear set of quality indicators that are result-oriented ▪ Invest in setting up data infrastructure - *the Bloomberg of Health* - and the accompanying privacy legislation	▪ Quality Institute ▪ Government, providers
3 **Encouraging awareness and independence among consumers**	▪ Facilitate independence and responsibility among patients by offering an insight into personal Electronic Patient Files, medical files and quality ▪ Introduce (financial) incentives to regulate the demand for health care	▪ Providers, payors ▪ Payors, government
4 **Outlining the range of collective services, and revising financing**	▪ Make clear package choices for cure and care ▪ Investigate the feasibility of alternative financing models for cure and care	▪ CVZ, government ▪ Payors, financial institutions
5 **Reshaping the health care landscape**	▪ Use hospital mergers to re-design the health care landscape ▪ Support specific downsizing or conversion of surplus capacity ▪ Focus on e-Health in order to offer cost-effective services	▪ Hospitals ▪ Government, payors ▪ Providers
6 **Focusing efforts on prevention**	▪ Develop a database of proven cost-efficient prevention measures and make it widely accessible to the public and municipalities ▪ Start an education program about healthy behavior in schools and reduce the availability of unhealthy foods in schools and sports clubs	▪ Payors, providers ▪ Government
7 **Showing political leadership**	▪ Develop a long-term vision for Dutch health care together with relevant stakeholders ▪ Do not deviate from the long-term vision under pressure from lobby groups	▪ Government ▪ Government

5 Conclusion

The complexity of the health care debate, the sometimes barely veiled partisan interests and the attendant discord mean we are all too readily distracted from the consensus that does exist between health care managers in the Netherlands on a great many primary points. This report shows that plenty of health care managers are in agreement in their analysis of the cost drivers in contemporary health care. Moreover, a vision of the future nature of health care in the Netherlands is widely shared. This in itself is quite remarkable.

In view of the consensus on both the causes of cost increases in health care and the vision of the future in mind, the question of 'what' we want is less urgent than the question of 'how' we are going to get there.

It is clear that change on the part of all those involved in health care will require steps to be taken in the short and long term. Figure 6 again provides a brief summary of the main short-term initiatives. Forming coalitions and drawing up joint covenants could be a useful way obliging one another to do what is necessary.

The vision rendered explicit in this report, the seven strategies that might be followed, and the scenario of health care in 2040 to which these could give rise could be used to hold debates in as constructive a manner as possible. Not losing sight of the shared goal of a sustainable, high-quality health care system in the Netherlands is an important precondition for achieving such a system.

6 Acknowledgements

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We would like to offer special thanks to Mickey Schoch from the Ministry of Finance and Patrick Jeurissen from the Ministry of Health, Welfare and Sports for their help in preparing and executing this study.

7 Appendix

7.1 Methodology

This study was commissioned by the World Economic Forum and carried out free of charge by McKinsey & Company. To this end, 42 interviews were held with representatives from all significant stakeholder groups in health care during the period May-August 2012. In addition, interviews were held with several representatives from sectors related to health care (incl. the consumer goods industries, medical technology and urban planning/design). During the interviews McKinsey acted in the capacity of neutral discussion leader, with the participants being asked about such matters as their vision of the future for health care and the strategies that could help us to make this vision a reality.

Secondly, a 'fact base' pertaining to the current situation and future developments in terms of health care expenditure was compiled on the basis of publicly available sources and additional analyses carried out by McKinsey & Company.

The insights garnered from the interviews and the analysis were used as input for a vision and strategy workshop in The Hague on 31 August 2012. All those interviewed during the first phase were invited to attend, and around 25 of them took part in the workshop. The workshop was facilitated by the World Economic Forum and McKinsey & Company.

Based on the interest shown in a follow-up discussion, an additional workshop was held at the end of November 2012. This involved further discussing the subject of prevention with a small group of participants.

Finally a report was compiled summarizing the most important insights garnered from the interviews and workshops and formulating the concord and discord found in terms of vision. Input from both the World Economic Forum and several participants in the draft report was incorporated into the final version.

A concise summary of the findings served as input for the overarching report issued during the World Economic Forum meeting in Davos in January 2013. An electronic version of this report entitled *'Sustainable Health Systems - Visions, Strategies, Critical Uncertainties and Scenarios'* can be found on the website of the World Economic Forum (www.weforum.org).

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