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Netherlands

Health system review

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a partnership hosted by WHO

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Health Systems in Transition

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The Netherlands:

Health System Review 2016

The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Sweden, the United Kingdom and the Veneto Region of Italy, the European Commission, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. The European Observatory has a secretariat in Brussels and it has hubs in London (at LSE and LSHTM) and at the Technical University of Berlin.

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Contents

Preface

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health-care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policymakers and analysts in different countries; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including

the World Health Organization (WHO) Regional Office for Europe's European Health for All database, data from national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, data from the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to info@obs.euro.who.int.

HiTs and HiT summaries are available on the Observatory's web site (http://www.healthobservatory.eu).

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The HiT on the Netherlands was co-produced by the European Observatory on Health Systems and Policies and the Netherlands Institute for Health Services Research (NIVEL), which is a member of the Health Systems and Policy Monitor (HSPM) network. The HSPM is an international network that works with the Observatory on country monitoring. It is made up of national counterparts that are highly regarded at the national and international level and have particular strengths in the area of health systems, health services, public health and health management research. They draw on their own extensive networks in the health field and their track record of successful collaboration with the Observatory to develop and update the HiT.

NIVEL is a key research and knowledge institute in the Netherlands, distinguished by the quality and broad scope of its health services research and its contribution to policy and to the body of scientific knowledge in this domain. NIVEL carries out research at national and international level with a focus on the need for healthcare (health status, lifestyle, social environment, norms and attitudes), the supply of healthcare (volume, capacity, organizational structure, quality and efficacy), the healthcare process (doctor–patient interaction, patient-centredness, compliance) and healthcare policy (legislation, regulations, financing and insurance). NIVEL has a statutory obligation to publish the results of all its activities.

This edition was written by Madelon Kroneman (NIVEL), Wienke Boerma (NIVEL), Michael van den Berg (RIVM, the National Institute for Public Health and the Environment), Peter Groenewegen (NIVEL) and Judith de Jong (NIVEL). It was edited by Ewout van Ginneken (Observatory), working with the support of Reinhard Busse of the Observatory's team at the Berlin University of Technology. Angela Verleun, Mieke Rijken, Sanne Snoeijs, Francois Schellevis, Willemijn Schäfer and Ronald Batenburg (all of NIVEL) also contributed to one of the chapters.

The basis for this edition was the previous HiT on the Netherlands, which was published in 2010, and written by Willemijn Schäfer, Madelon Kroneman, Wienke Boerma, Walter Devillé, all of NIVEL, Michael van den Berg and Gert Westert of RIVM (National Institute for Public Health and the Environment) and Ewout van Ginneken then of the Berlin University of Technology.

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The European Observatory on Health Systems and Policies is a partnership, hosted by the WHO Regional Office for Europe, which includes the Governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Sweden, the United Kingdom and the Veneto Region of Italy, the European Commission, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science (LSE) and the London School of Hygiene & Tropical Medicine (LSHTM). The European Observatory has a secretariat in Brussels and it has hubs in London (at LSE and LSHTM) and at the Technical University of Berlin.The Observatory team working on HiTs is led by Josep Figueras, Director, Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors), Richard Saltman, Ellen Nolte, Ewout van Ginneken and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Gabriele Pastorino. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White, Sarah Cook (copy-editing) and Steve Still (design and layout).

List of abbreviations

List of abbreviations	
ACM	Consumers and Markets Authority
ADR	Adverse Drug Reactions
AFM	Netherlands Authority for the Financial Markets
AWBZ	Exceptional Medical Expenses Act
AWZ	Medical insurance Act
BIG	Individual Health Care Professions Act
BKZ	Health Care Budget
BOPZ	Psychiatric Hospitals Compulsory Admissions Act
CAK	Central Administration Office
CAN	Certified Nursing Assistant
CBG	Medicines Evaluation Board
CBP	College for the Protection of Personal Data
CBZ	Board for Healthcare Institutions
CCMS	Central College of Medical Specialists
CIZ	Centre for Needs Assessment
CPB	Netherlands Bureau for Economic Policy Analysis
CPD	Continuous professional development
CVZ	Healthcare Insurance Board
DBC	Diagnosis Treatment Combination
DHCPR	Dutch Healthcare Performance Report
DKG	Diagnostic Cost Group
DNB	Dutch Central Bank
DRG	Diagnosis Related Group
EPD	Electronic Patient Record
EVS	Electronic Prescription System
FKG	Pharmaceutical Cost Group
FMS	Federation of Medical Specialists
FTO	Pharmacotherapy Consultation Group
GGDs	Municipal health services

List of abbreviations

GVS	Medicine Reimbursement System
HALE	Health-adjusted life expectancy
HAP	GP out-of-hours centres
HSMR	Hospital Standardized Mortality Rate
IGZ	Health Care Inspectorate
IJZ	Dutch Inspectorate for Youth Care
IKG	Health Care Information and Complaints Service
ISIS	Infectious Diseases Surveillance Information System
KNGF	Royal Dutch Society for Physical Therapy
KNMG	Royal Dutch Medical Association
KNMP	Royal Dutch Association for the Advancement of Pharmacy
KNOV	Royal Dutch Association of Midwives
Kzi	Quality of Health Facilities Act
LBZ	National Basic Registration Hospital Care
LHV	National Association of GPs
NHG	Dutch College of GPs
NIVEL	Netherlands Institute for Health Services Research
NJI	Netherlands Youth Institute
Nma	Dutch Competition Authority
NWO	Dutch Organization for Scientific Research
NPCF	Patient Federation
NVPG	Dutch Association for Disease Prevention and Health Promotion
NVZ	Dutch Hospitals Association
NZa	Dutch Healthcare Authority
OMS	Association of Medical Specialists
OOP	Out-of-pocket payments
RIVM	National Institute for Public Health and the Environment
RN	Registered Nurse
ROS	Regional Support Structures
RVP	National Immunization Programme
RVS	Council for Public Health and Society
SCP	Netherlands Institute for Social Research
SDR	Standardized death rate
SHI	Social Health Insurance
SKGZ	Foundation for Complaints and Disputes In Health Care Insurances
SVB	Social Insurance Bank
SZW	Ministry of Social Affairs and Employment
UWV	Social Security Implementation Body
V&VN	National Association of Nurses and Carers
VHI	Voluntary health insurance

List of abbreviations

VTV	Public Health Status and Forecasts
VWA	Dutch Food and Consumer Product Safety Authority
VZVZ	Association of Care Providers for Care Communication
WBO	Screening Act
Wbp	Personal Data Protection Act
WFZ	Foundation Healthcare Sector Guarantee Fund
WGBO	Medical Treatment Agreement Act
WGP	Medicine Prices Act
Wkkgz	Act on Quality, Complaints and Disputes in Care
Wlz	Long-term Care Act
WMCZ	Client Representation Act
WMG	Health Care Market Regulation Act
Wmo	Social Support Act
WPg	Public Health Act
WTG	Health Care Tariffs Act
WTL	Termination of Life on Request and Assisted Suicide Review Procedures Act (the "Euthanasia Act")
WTZ	Act on Access to Health Insurance
WTZi	Health Care Institutions Admission Act
WVG	Health Care Facilities Act
Wzt	Health Care Allowance Act
ZBCs	Independent treatment centres
ZFW	Sickness Fund Act
ZiNL	National Healthcare Institute
ZKN	Independent (day care) clinics
ZN	Health Insurers Netherlands
ZonMw	Netherlands Organization for Health Research and Development
Zvw	Health Insurance Act

List of tables, figures and boxes

Tables

Figures

Boxes

Abstract

This analysis of the Dutch health system reviews recent developments in organization and governance, health financing, healthcare provision, health reforms and health system performance. Without doubt, two major reforms implemented since the mid-2000s are among the main issues today. The newly implemented long-term care reform will have to realize a transition from publicly provided care to more self-reliance on the part of the citizens and a larger role for municipalities in its organization. A particular point of attention is how the new governance arrangements and responsibilities in long-term care will work together.

The 2006 reform replaced the division between public and private insurance by one universal social health insurance and introduced managed competition as a driving mechanism in the healthcare system. Although the reform was initiated almost a decade ago, its stepwise implementation continues to bring changes in the healthcare system in general and in the role of actors in particular. In terms of performance, essential healthcare services are within easy reach and waiting times have been decreasing. The basic health insurance package and compensations for lower incomes protect citizens against catastrophic spending. Out-of-pocket payments are low from an international perspective. Moreover, the Dutch rate the quality of the health system and their health as good. International comparisons show that the Netherlands has low antibiotic use, a low number of avoidable hospitalizations and a relatively low avoidable mortality. National studies show that healthcare has made major contributions to the health of the Dutch population as reflected in increasing life expectancy. Furthermore, some indicators such as the prescription of generics and length of stay reveal improvements in efficiency over the past years. Nevertheless, the Netherlands still has one of the highest per capita health expenditures in Europe, although growth has slowed considerably after reverting to more traditional sector agreements on spending.

Executive summary

Introduction

The Netherlands is a small but densely populated country; it is the most densely populated country in the European Union after Malta. Life expectancy is good (81.8 years in comparison to 80.9 for the EU as a whole), though not one of the very highest in Europe. As in other countries, there are inequalities in health, in particular by socio-economic status (with a six-year gap in life expectancy between people with low and high educational attainment), and poorer health for immigrants from outside the EU. Mental disorders represent both the greatest burden of disease and one of the only groups of conditions with rising mortality rates in recent decades.

Most health challenges are similar to those in other European countries, such as rising levels of obesity and ageing of the population. Lifestyle-related policies have been developed on smoking and alcohol use. Since 2008 there is a smoking ban in pubs and restaurants. Since 1990 the percentage of smokers in the population has halved. In 2013 measures were taken to reduce the use of alcohol among teenagers. The state vaccination programme is comprehensive and has a very high coverage. Population screening programmes are available for cervical cancer, breast cancer and (since 2013) colon cancer. Efforts to improve coordination in birth care have resulted in a reduction of perinatal- and neonatal mortality rates. Future health challenges are partly related to demographic developments, which will bring more chronic disease, but not necessarily more dependency. One of the environmental health challenges is air pollution; in this densely populated country, European limits on air quality are not met in all places, and despite recent improvements current levels of pollution are still estimated to reduce average life expectancy by 13 months.

Organization and governance

Before 2006 the Dutch health system was a hybrid system based on social insurance, combined with a long-standing role for private insurance covering the better-off. Until 2006 the focus of reforms was on the supply side, with rationalization of provision and strengthening of primary care. The 2006 reforms shifted the focus to the demand side, introducing three managed markets for a defined universal health insurance package, plus healthcare purchasing and provision. The government stepped back from direct control of volumes and prices to a more distant role as supervisor of these markets (though planning of medical professionals remains by limiting the number of doctors trained). Both insurers and providers have been consolidating, in part to strengthen their position within the market. Currently, four insurer groups have 90% of the insurance market. The government provides a web site to help patients choose healthcare providers; other independent web sites are also available. Nevertheless, opportunities to make choices during the care process are limited, as is the extent to which patients exercise their notional choice.

Long-term care was reformed in 2015 in order to contain costs (and was the subject of an EU recommendation through the European Semester). Care at home, preferably by informal carers, is now given greater priority over institutional care, which was seen as having become over-used. Municipalities became responsible for social care – and with a reduced budget, on the assumption that locally organized care will be more efficient. Health insurers took over responsibility for home nursing, with district nurses playing a key role in integrating different aspects of care and support.

The Netherlands has a wide range of public bodies in the health field. Some oversee different aspects of the health system, such as the content of the basic health insurance package and care quality (Care Institute Netherlands), and fair competition between insurers and providers (the Dutch Healthcare Authority). Others provide advice and evidence on different aspects of health, including several scientific research institutes such as the National Institute for Public Health and the Environment, which produces four-yearly reports on the state of public health in the Netherlands. The integration of health across all policies is fragmented, although there is increasing interest in the topic at the municipal level.

Most healthcare providers use some form of electronic patient records. All general practitioners (GPs) use an electronic patient record system; this includes an electronic prescription system. However, the national roll-out of an electronic

patient record system to interconnect these practice-based systems failed, mainly for reasons of privacy; a more limited system is being implemented in its place.

Financing

The Dutch health system is among the most expensive in Europe although growth has flattened since 2012 after reverting to more traditional sector agreements on spending. Yet it is also in the top five of best valued systems by its users in terms of quality. The high expenditure is a marked change since the early 2000s, before which Dutch expenditure was around the average for the EU. As a result of the 2006 reform, and with that the abolition of the private insurance scheme for the better-off, the balance of expenditure has shifted substantially from private to public expenditure (which has risen from 64.7% of the total in 2005 to 79.8% in 2013). Unlike a number of other European health systems, Dutch health expenditure as a proportion of GDP has not fallen since the 2009 financial crisis.

Healthcare is principally (72%) financed through the compulsory health insurance contributions from citizens, with an additional 13% from general taxation. Adults pay a community-rated premium to their insurer (the government contributes the premium for children), plus an income-dependent premium into a central fund that is redistributed amongst insurers on a risk-adjusted basis. The basic benefits package includes GP care, maternity care, hospital care, home nursing care, pharmaceutical care and mental healthcare. The first €385 (in 2016) must be paid out of pocket, except for GP consultations, maternity care, home nursing care and care for children under the age of 18. Care that is not covered under the basic package can be insured via VHI, such as glasses and dental care.

Health insurers and providers negotiate on price and quality of care, although competition on quality is still in its infancy. For care for which negotiation is not feasible (around 30% of hospital care), such as emergency care (not plannable) or organ transplantation (too few providers), the Dutch Healthcare Authority establishes maximum prices. Healthcare providers are independent non-profit entrepreneurs. Hospitals are paid through an adapted type of diagnosis-related group (DRG) system: Diagnosis Treatment Combinations. GPs are paid by a combination of fee-for-service, capitation, bundled payments for integrated care, and pay-for-performance (focused on issues such as accessibility and referral patterns).

From 2015 long-term care is principally the responsibility of municipalities, apart from home nursing (which comes under healthcare) and residential long-term care (which is financed through a specific scheme funded by an income-related levy). This reform has come with a great deal of social unrest, because the reform also includes substantial savings targets, and with greater pressure on long-term care seekers to first try to find a solution within their social network. It remains unclear how this will work in practice and whether the savings targets will be met.

Physical and human resources

The number of acute beds per person in the Netherlands has long been well below European averages (currently 332 per 100 000 people in comparison to the EU average of 356), although Dutch population density means that nearly all Dutch people live less than 25 minutes' drive from a hospital. Unlike other countries, though, the number of acute beds has been rising in recent years, since the abolition of central planning in 2008, and bed occupancy rates have been falling. The number of hospital sites has remained stable over this period, but the number of outpatient clinics has strongly increased (from 61 to 112) as more hospitals open outpatient clinics on the edge of their catchment area to better compete with surrounding hospitals. The availability of diagnostic imaging is unusual in international terms, with relatively few MRI and CT scanners by EU standards but proportionately many PET scanners. The long-term care sector is seeing a steady reduction in bed supply and an increasing overlap of functions between nursing homes (providing nursing and rehabilitation care) and residential homes (for people who cannot live at home). The number of physicians per head has been rising; it used to be relatively low in comparison to other EU countries, but at 329 per 100 000 people it is now nearing the EU average of 347. There are no signs of significant shortages or oversupply of healthcare professionals; human resources is one area where central planning remains in place. The traditional work settings and division of labour between medical professions have changed over the years. Professionals in primary care increasingly work in larger organizational settings (such as primary healthcare centres), where they are supported by allied staff and managers, and increasingly work in multidisciplinary teams. Community pharmacists increasingly work in structured collaboration with GPs in their catchment area. Some tasks are being transferred from doctors to nurses. As a result new occupations exist, such as practice nurses, nurse practitioners, nurse-specialists (who can also prescribe

medicines, in an ongoing pilot) and physician assistants. Furthermore there is a focus on shifting care from secondary care to primary care, mainly for chronic diseases and for simple, low risk treatments, such as minor surgery.

Provision of services

Public health services are primarily the responsibility of municipalities and include services such as prevention, screening and vaccination.

The gatekeeping principle is one of the main characteristics of the Dutch system and means that hospital care and specialist care (except emergency care) require referral from a GP (or some other primary care practitioners, such as midwives or dentists). Primary care in the Netherlands is strong in comparison with primary care in many other European countries, and Dutch GPs have broad service profiles compared to GPs in many other countries. Around 93% of all patient contacts with a GP are handled within primary care; only 7% of the contacts result in a referral to secondary care. After receiving a referral, patients can choose in which hospital they want to be treated, but reimbursement may depend on the type of health policy they have. Benefits-in-kind policies are unlikely to reimburse full costs for care from a provider that does not have a contract with that insurer; reimbursement policies enable freer choice and will reimburse all 'reasonable' costs.

Extra attention is now being paid to integrated care for chronic diseases and care for people with multi-morbidities, and the shift of care to lower levels of specialization: from hospital care to GP care to practice nurse to self-care. A programme of experimental models of integrated care for the elderly going beyond the boundaries of existing legislation and financing structures is in place, with 125 specific projects taking place between 2008 and 2016.

Access to residential care for those needing 24/7 supervision depends on an assessment by the Centre for Needs Assessment. Patients have the option to receive care in a residential home or at their own home. There have been concerns about the quality of care in residential homes, in particular regarding the skills of the caring staff. Long-term care at home for patients who do not need 24-hour supervision is assessed and coordinated by the district nurse. Assessments of needs for domestic care and social support are mostly carried out by employees of the municipality or social district teams that are coordinated by municipalities. These assessments (frequently called "kitchen table dialogues") first explore the options for support from the patients' social network before

considering professional care. In 2012 approximately 1.5 million people (12% of the population) provided informal care to ill or disabled people. Although recent reforms envisage a more central role for informal carers in caring for the sick and disabled, financial compensation and facilities for carers are limited and have recently been reduced.

Mental healthcare is in a process of deinstitutionalization. The number of mental care beds is planned to be one-third lower in 2020 in comparison to 2008, while care should be provided at home as much as possible; most recent figures suggest that the Netherlands has about twice the number of psychiatric hospital beds than the EU average (per 100 000 people). GPs have the first responsibility for mental healthcare, often with the help of a specialized mental care practice nurse (around 80% of GP practices employ such a specialist nurse).

Since 2002 Dutch law allows euthanasia under strict conditions: amongst others, there has to be a situation of hopeless suffering, a second opinion from another physician should confirm that and the patient should be legally capable; another condition is that physicians must know the patient well, meaning that patients from other countries cannot come to the Netherlands for euthanasia.

Principal health reforms

The Dutch health system has for many years been characterized by a large number of reforms, both large and small, on all levels of the health system.

The 2006 reform introducing a single healthcare insurance scheme and managed competition aimed to promote efficiency, to reduce central governance and to improve access at acceptable societal costs. However, the reform has not led to sustainable cost-containment, which became an even more pressing issue after the 2008 financial crisis. Instead the Minister reverted to more traditional consensus-based agreements with umbrella organizations of provider, insurers and patients on spending to curb costs, since when expenditure growth has slowed. Quality is not yet a leading principle in the purchasing processes; the focus is mostly on price and volume, though quality is becoming more important due to the introduction of quality indicators and the development of professional guidelines.

The implementation of the long-term care reform of 2015 has thus far been rocky, with many open questions relating to the adequacy of funding and staffing and the adoption of new roles. As with the 2006 healthcare reforms, it will take time before its full impact becomes clear. A reform of the mental

healthcare sector in 2014 aimed to shift mental healthcare out of secondary care into primary care and the community, and gave GPs and mental healthcare practice nurses a central role in providing mental healthcare. So far, this shift from specialist to generalist mental healthcare seems to have been successful, but has not resulted in lower costs.

Assessment of the health system

The Dutch government has three main goals for the healthcare system: quality of care (effective, safe and patient-centred), accessibility to care (reasonable costs for individuals, travel distance and waiting times) and affordability of care (overall cost control). Although healthcare providers are primarily responsible for the quality of care they provide, the Dutch minister of health bears a 'system-responsibility' and is primarily responsible for the good functioning of the system as a whole, including the conditions for high-quality care, accessibility for all and the efficient use of resources.

Accessibility of Dutch healthcare is good. Essential healthcare services are within easy reach for almost the entire population, and waiting times for most services have been decreasing and in most cases meet national standards for reasonable waiting times (four weeks for initial hospital consultation and for diagnostics, seven weeks for treatment). The system protects Dutch citizens against catastrophic spending and out-of-pocket payments remain low compared to most other European countries, and well below both the EU and OECD averages.

The Netherlands is among the five wealthiest countries in the Eurozone, and the Dutch population has high expectations in terms of the quality of healthcare services. The numbers of so-called avoidable hospital admissions for asthma, COPD and acute complications of diabetes mellitus are lower than in most other Western countries, indicating that primary care and outpatient secondary care help to prevent serious symptoms from developing. The numbers of admissions for heart failure and chronic diabetes complications are less favourable, with the Netherlands scoring in the middle range. For people diagnosed with the types of cancer for which Dutch screening programmes are in place – breast, cervical and colorectal cancer – five-year relative survival ratios remained stable or increased mildly in the 2000–2011 period; in international comparison, Dutch survival ratios for these forms of cancer are in the middle range. Mortality after admission for strokes shows a comparable pattern: a decrease over the years but still higher rates than Scandinavian countries, Spain and Austria, for example.

Health expenditure has been increasing in the Netherlands since 2000. In the period 2000–2013, the average increase was around 5.5% per year. However, in recent years the increase has slowed considerably. Some indicators, such as the prescription of generics and length of stay indicate improvements in efficiency over the past years, but the Netherlands is still the European country with some of the highest health expenditure per capita.

To enable patients and consumers to make choices between insurers and providers, the availability of relevant information is essential. Transparency has been high on the political agenda for several years. Currently, some initiatives have contributed to this transparency but much remains to be done. Key concerns are the lack of reliable quality indicators that are available to citizens and the fragmentation, inadequacy, inaccessibility and lack of clarity of record systems.

Conclusion

The Dutch healthcare system has not lacked decisiveness over the past decade – a trait that continues to be needed for troubleshooting and maintenance. A particular point of attention is how the new governance arrangements and responsibilities in long-term care, particularly those of municipalities and health insurers, will fit together, without pushing away care to each other. The position of the 2006 reform is much more stable, but fine-tuning will be needed and solutions found where current market-based solutions are not yet effective. Yet friction seems to be growing between competition as the driver of the healthcare system and reforms that demand cooperation and integration among actors. Specialization among hospitals; substitution between secondary and primary care; integration within primary care and between primary care and social care; and seamlessly provided long-term care organized by municipalities are all examples of changes that require harmony and mutual trust. It may prove challenging to create these conditions in a system where competition is the ruling principle.

1. Introduction

The Netherlands is a small but densely populated country. One fifth of the population has a foreign background. Although formally headed by a king, the executive power is with the parliament and the government, which is usually based on coalitions. Important demographic trends are ageing, decreasing growth of the population and urbanization. Life expectancy and mortality rates are favourable, but among OECD countries, the Netherlands has ceded its top ranking in this respect. Malignant neoplasms and diseases of the circulatory system are, by far, the main causes of death. As in other countries, inequalities in health occur in the Netherlands as well, for instance along educational lines, but also non-western immigrants have a higher burden of disease than native Dutch people. Overall, the most prevalent disease burden is from mental disorders, followed by cardiovascular disease and cancer.

Lifestyle-related policies have been developed on smoking and alcohol use. Since 2008 there is a smoking ban in pubs and restaurants. Since 1990 the percentage of smokers in the population has halved. In 2013 measures were taken to reduce the use of alcohol among teenagers. The state vaccination programme is comprehensive and has a very high coverage. Population screening programmes are available for cervical cancer, breast cancer and (since 2013) colon cancer. Efforts to improve coordination in birth care have resulted in a reduction of perinatal- and neonatal mortality rates. Future health challenges are partly related to demographic developments, which will bring more chronic disease, but not necessarily more dependency. A broader societal issue with consequences for health is the inequalities in life expectancy and health status among population groups. Specific challenges can be identified as well, for instance overweight and obesity (or poor physical exercise), mental disorders and air pollution in highly urbanized areas.

1.1 Geography and sociodemography

The Netherlands is situated in western Europe where the rivers Rhine, Meuse and Scheldt flow into the North Sea. The coastal lowlands and areas of reclaimed land in the west dominate the image of the country abroad, but the eastern and southeastern parts are more hilly. To the east, the Netherlands is bordered by Germany and to the south by Belgium (see Fig. 1.1). The moderate maritime climate brings cool summers and mild winters. With an area of 41 543 km^2, of which almost 20% is water, the Netherlands is a relatively small country, but its population of almost 17 million makes it very densely populated (Statistics Netherlands, 2015a).

Among the 21% of the population in 2014 whose parents were born outside the Netherlands, a small majority are non-western immigrants, especially people from the Antilles and Aruba, Morocco, Surinam and Turkey. Most frequently occurring religions in 2014 were Roman Catholic (26%), Dutch Reformed (7%), Calvinist (6%), Dutch Protestant (5%) and Muslim (5%) (Statistics Netherlands 2015a). Regular (at least monthly) attendance at a church or other religious service has dropped remarkably over the past decades, from 37% in 1971 to 17% in 2012.

Important demographic trends are ageing and decreasing growth of the population and urbanization. Since the 1980s the proportion of children has steadily decreased, while the proportion of seniors increased (see Table 1.1). In the same period the annual population growth fell strongly to 0.3% in 2014, which is half the average growth among high-income OECD countries. While in 1980 35% of the population still lived in rural areas, this figure has dropped to 10% in 2014, which is also below the average of 20% among high-income OECD countries (World Bank, 2015).

Fig. 1.1
Map of the Netherlands

Source: Ministry of Foreign Affairs 2009b.

Table 1.1
Demographic indicators, 1980–2014 (selected years)

Indicator	1980	1990	2000	2005	2010	2014
Population, total (millions)	14.2	15	15.9	16.3	16.6	16.9
Population, female (% of total)	50.4	50.6	50.5	50.5	50.5	50.4
Population aged 0–14 (% of total)	22.3	18.2	18.6	18.4	17.6	16.9
Population aged 15–64 (% of total)	66.2	68.9	67.8	67.4	67	65
Population aged 65 and above (% of total)	11.4	12.7	13.6	14.1	15.6	17.7
Population growth (annual %)	0.8	0.7	0.8	0.2	0.5	0.4
Population density (people per km^2)	419.1	442.9	471.7	483.4	492.6	500.9
Fertility rate, total (births per woman)	1.6	1.6	1.7	1.7	1.8	1.7
Birth rate, crude (per 1000 people)	12.8	13.2	13	11.5	11.1	10.4
Death rate, crude (per 1000 people)	8.1	8.6	8.8	8.4	8	8
Age dependency ratio	51.3	44.6	47.1	47.8	49.1	52.5
Rural population (% of total population)	35.3	31.3	23.2	17.4	12.9	10.1

Source: World Bank, 2015.

1.2 Economic context

With a world top 20 ranking of GDP, the Netherlands is a wealthy country. A location near the sea and a good logistic infrastructure that serves as the gateway to the German hinterland importantly contribute to the Netherlands' top 10 position in export. Key drivers of the Dutch economy are financial and commercial services (Ministry of Foreign Affairs, 2009). Major industrial activity concerns intensive agriculture, food processing, chemicals and petroleum refinery and electronic machinery (European Commission, 2009).

An episode of prosperity and low unemployment in the 1990s and the beginning of the new century was followed by a reversal in economic growth in the years after. The global economic crisis that started in 2008 resulted in an economic standstill. Although the first signs of economic recovery have occurred since 2010, the unemployment rate continued to rise, up to 7.4% in 2014 (see Table 1.2). In 2015 economic indicators show that the period of economic downturn has been left behind. Not only are investments and related profits growing strongly, almost to the pre-crisis level, but also household incomes have grown and unemployment is starting to decrease (Statistics Netherlands, 2015a). The IMF (2015) expects the unemployment rate in the Netherlands to drop further in 2016 and the years ahead.

Table 1.2
Macroeconomic indicators, 2007–2014 (selected years)

Macroeconomic indicator	2007	2014
GDP, PPP (current international $) (millions)	715 283	803 312
GDP per capita PPP (constant 2011, international $)	46 852	45 691
GDP growth (annual %)	3.7	1.0
Industry, value added (% of GDP)	24.0	21.2
Agriculture, value added (% of GDP)	2.0	1.8
Services, etc, value added (% of GDP)	74	77
Working and available labour force (total x 1000)*	8 533	8 858
Unemployment, total (% of total labour force)*	4.2*	7.4
Real interest rate (%)	3.4	0.2**

Sources: World Bank, 2015; * Statistics Netherlands, 2015a. ** 2012.

1.3 Political context

The Dutch political system is a parliamentary democracy with the king as the formal head of state. Provided by the Constitution, the legislative power is exerted by two chambers: the First Chamber ("*Eerste Kamer*" or Senate) and the Second Chamber ("*Tweede Kamer*" or House of Representatives). The primate is with the Second Chamber, whose task it is to amend and approve bills put forward by the government. The First Chamber has a supervisory role as it can only approve or reject laws that have been passed by the Second Chamber. The 150 members of the Second Chamber are directly elected by Dutch nationals over 18 years; in principle every four years but earlier if a government has fallen. The 75 members of the First Chamber are elected for four years by the 12 provincial councils. The head of state, currently King Willem Alexander, has no executive power (overheid.nl, 2016; den Exter et al., 2004).

A consequence of the fragmented political landscape in the Netherlands is that governments are normally based on a coalition of parties that jointly can rely on a majority in the parliament and that have agreed on a programme for the coming four years and how to fill the posts in the government. The formation of such an agreement can be a complex and time-consuming process (Tweede Kamer der Staten-Generaal, 2016). Members of the Cabinet (the Ministers and Secretaries of State) cannot be members of the parliament.

In addition to the members of the Second Chamber, the Dutch population also directly elects (four yearly) the members of the 12 provincial councils, as well as the members of their local municipal council. Provinces are primarily

in charge of land-use planning, water and environmental management, social work and culture (overheid.nl, 2016). Municipalities have broad and growing responsibilities, including housing, roads and road safety, education, public health, social work, youth care, culture and sport (overheid.nl, 2016). From the beginning of 2015 major tasks in the area of social protection and support, self-care, social participation and sheltered living have been decentralized to the municipalities (see Section 2.4).

Lastly, the Netherlands is an active member of the international community, first and foremost the European Union, of which it has been one of the founders. Furthermore, it is a member of international organizations, including the United Nations (since 1945), the North Atlantic Treaty Organization (NATO), the World Trade Organization (WTO) and the Council of Europe. The country has ratified international treaties with relevance to healthcare, including the General Agreement on Trade in Services (GATS), the Convention on the Rights of the Child; the Convention on the Rights of Persons with Disabilities; the European Human Rights Convention and the International Bill of Human Rights.

1.4 Health status

One aspect of the ageing Dutch population is the growing life expectancy. Between 1980 and 2013 it has increased from 75.7 to 81 years. The consistently higher life expectancy of women continues to exist but the gap with men has decreased over the years (World Bank, 2015). Despite this growth in life expectancy, the Netherlands has moved from a top ranking on this indicator to a more intermediate position among OECD countries. Mortality rates provided in Table 1.3 show these are declining for all age groups. Not only has the general life expectancy of the Dutch population increased, but the health-adjusted life expectancy (HALE) has as well; since 2000 by two years, reaching 71 in 2013 (see Table 1.4).

Table 1.3

Mortality and health indicators, 1980–2013 (selected years)

Indicator	1980	1990	2000	2005	2010	2013
Life expectancy at birth, female (years)	79.2	80.1	80.6	82	83	83
Life expectancy at birth, male (years)	72.5	73.8	75.5	77	79	79
Life expectancy at birth, total (years)	75.7	76.9	78.0	79	81	81
Mortality rate, adult, female (per 1 000 female adults)	72.1	67.1	67.2	61	n/a	n/a
Mortality rate, adult, male (per 1 000 male adults)	136.7	116.5	100.1	83	75 *	n/a
Mortality rate, infant (per 1 000 live births)	8.7	7.2	4.6	4.6	4	4
Mortality rate, under 5 years of age (per 1 000)	10.7	8.8	6.2	5.5	4	4

Source: World Bank, 2015. * 2009.

Note: n/a = not available.

Table 1.4

Health-adjusted life expectancy (HALE), 2000–2013 (selected years)

	2000	2013*
Healthy Life Expectancy (HALE) at birth	69	71
Healthy Life Expectancy (HALE) at birth, male	67	70
Healthy Life Expectancy (HALE) at birth, female	70	72

Source: World Health Organization, 2015.

Note: * Figures for 2005 and 2010 not available.

Malignant neoplasms and diseases of the circulatory system are, by far, the main causes of death in the Netherlands. Table 1.5 shows decreasing trends of standardized death rates for these groups over the years; however, in absolute numbers death rates are growing due to population ageing. As deaths caused by malignant neoplasms (cancer) declined more slowly than other causes, it became the main cause of death since 2007. In the decades before 2007 diseases of the circulatory system were the main cause of death in the Netherlands. Of the total number of deaths in 2011, 32.4% died of cancer and 28.1% of heart- and vascular diseases (Centraal Bureau voor de Statistiek, 2013). In the EU27 diseases of the circulatory system continue to be the main cause of death (WHO Regional Office for Europe, 2015). In contrast to most other causes of death in the Netherlands, standardized death rates (SDRs) from mental and behavioural disorders have steadily increased over the past decades.

Table 1.5

Main causes of death, 1980–2012, standardized death rates per 100 000, (selected years)

Causes of death (ICD-10 classification)	1980	1990	1995	2000	2005	2010	2012
Communicable diseases							
All infectious and parasitic diseases (A00–B99)	4.4	4.9	6.3	8.2	8.3	8.3	8.3
Noncommunicable diseases							
Circulatory diseases (100–199)	358.8	291.1	269.3	233.8	187.4	146.7	136.4
Malignant neoplasms (C00–C97)	221.3	214.9	206.8	198.5	189.5	182.8	178.5
Diabetes (E10–E14)	9.3	20.8	15.9	16.1	16.6	11.7	10.3
Mental and behavioural disorders (F00–F99)*	14.3	21.4	31.21	37	41.7	44.42	48.4
Ischaemic heart diseases (120–125)	173.9	130.2	110.5	85.6	59.5	40.6	36.2
Cerebrovascular diseases (160–169)	82.5	67.3	62	56.1	43.5	32.7	29.6
Diseases of respiratory system (J00–J99)	48.8	58.1	62.7	67.3	60.1	48.1	50.7
External causes							
Transport accidents (V01–V99)	14	8.9	8	6.9	4.6	3.9	3.6
Suicide (X60–X84)	10.6	9.3	9.2	8.9	9	8.8	9.6

Sources: World Bank, 2015; WHO Regional Office for Europe, 2015; *Statistics Netherlands, 2015a.

Perinatal mortality

Perinatal and neonatal mortality rates have been a point of concern, as these used to be high compared to other high-income countries. In 1980 the neonatal death rate in the Netherlands (5.7 per 1000 live births; see Table 1.6) was still well below the level in the EU15 (the EU Member States that joined before May 2004) (8.7 per 1000 live births). In 2005, however, the Dutch rate (3.7) was higher than in the EU15 (2.7). Since then, intensive efforts to strengthen the chain of care among hospitals, midwives and other health professionals have resulted in better performance, both at process and outcomes level. For instance, the percentage of pregnant women who had their first prenatal visit before 10 weeks of pregnancy rose from 35% in 2005 to 81% in 2012 (van den Berg et al., 2014a). In 2012 the neonatal death rate in the Netherlands (2.6, as shown in Table 1.6) has neared the EU15 average (2.4). Similarly, in 2000 perinatal mortality in the Netherlands (9.1 per 1000 live births) was well above the EU15 level (6.4). Outcomes have improved since then, however: in 2012 the Dutch rate (3.7) was even lower than in the EU15 (6.4).

Table 1.6
Reproductive and sexual health indicators, 1980–2012 (selected years)

	1980	1990	2000	2005	2010	2012
Neonatal deaths per 1 000 live births	5.7	4.8	3.9	3.7	2.8	2.6
Post neonatal deaths per 1 000 live births	2.9	2.3	1.2	1.3	1.0	1.1
Perinatal deaths per 1 000 births	n/a	n/a	9.1	5.2	4.1	3.7
Maternal deaths per 100 000 live births	8.8	7.6	8.7	8.5	2.2	3.4
Abortions	n/a	18 366	27 205	28 738	27 794	26 871
Syphilis incidence per 100 000	n/a	3.3	n/a	4.3	4.0	3.8*
Gonococcal infection incidence per 100 000	n/a	247.5	n/a	9.3	17.0	21.4*

Source: WHO Regional Office for Europe, 2015.

Notes: * 2011. n/a = not available.

Inequalities

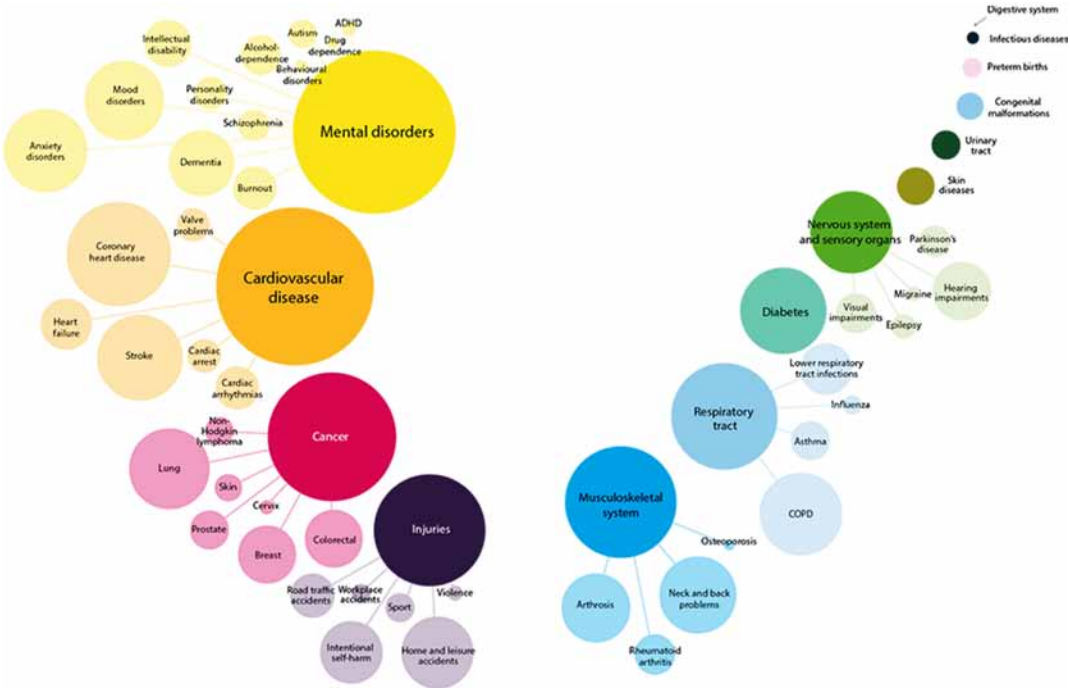
As in other countries, inequalities in health are a known phenomenon in the Netherlands. People with a lower socioeconomic status (SES) are in poorer health than those with a higher SES. Likewise, less well educated people are generally less healthy than people with a higher level of education, in particular when physical impediments, self-perceived health and musculoskeletal disorders are concerned. Differences can be explained inter alia by unhealthier lifestyles among people with lower SES and lower levels of education (de Hollander et al., 2006). This also applies to dental health. In 2011, 57% of 5-year-old children of mothers with a low SES had a perfect set of milk teeth, while this was 70% among similarly aged children of mothers with a high SES. At age 11, these percentages were 79 and 81 respectively (Schuller et al., 2013). Another inequality is in the burden of disease, which is higher among groups of immigrants than among native Dutch people. Non-western immigrants spend 23% more years of their lives with disabilities than other citizens (Antilles/ Aruba +25%; Surinam +26%; Turkey +31%, but Moroccans only +3%), which is mainly ascribed to the 26% higher prevalence of diabetes mellitus among these immigrants (Kunst et al., 2008).

Burden of disease

Contributions to the burden of disease of the Dutch population are mapped in Figure 1.2. It shows that the most prevalent disease burden is from mental disorders, followed by cardiovascular disease and cancer.

Fig. 1.2

Contributions to the burden of disease (2011)



Source: National Institute for Public Health and the Environment, 2015b.

Risk factors

Discouraging smoking has been a priority in the Netherlands since 2004, when a law came into force that guaranteed every citizen a smoke-free work environment. Mid-2008 the law was extended to also include cafés and bars (except the very small ones). As shown in Table 1.7, the proportion of regular smokers in the population has halved between 1990 and 2012. Another public health target has been the reduction of alcohol consumption among teenagers. To that end, in 2013 the age to legally buy alcohol was raised from 16 to 18 years. Already prior to that measure, the consumption of alcohol started to decline. Over the period 2007– 2011 the number of young people between the

age of 12 and 15 years who had ever used alcohol declined from 74% to 62%. The proportion of that age group who used alcohol monthly fell in that same period from 41% to 30% (de Looze et al., 2014).

The growing prevalence of colon cancer in the Dutch population is being combated by the introduction, in 2013, of a nationwide screening programme for colon cancer.

Table 1.7
Morbidity and factors affecting health status, 1990–2012 (selected years)

	1990	2000	2005	2010	2012
% of regular daily smokers in the population, age 15+	36.7	32.4	25.2	20.0	18.4
% overweight (self-reported)**	34.9	44.1	44.9	48.2	47.9
Pure alcohol consumption, litres per capita*,**	9.9	10.1	9.7	9.3	8.9**
% diabetes (total) (self-reported)	1.9	2.1	2.8	n/a	n/a
Cancer incidence per 100 000	407.1	483.2	554.4	653.7	691.6
Hospital discharges, ischaemic heart disease per 100 000	543.1	523.1	539.3	527.7*	n/a

Sources: Trimbos Institute, 2015; WHO Regional Office for Europe, 2015; Statistics Netherlands, 2015a.
Notes: n/a = not available; * 2009 ** 2011.

Prevention

A longstanding public health measure has been the National Vaccination Programme (see also Section 5.1). The Programme provides vaccination free of charge to all children up to 13 years for 12 infectious diseases. With the exception of the vaccination against HPV (Human Papillomavirus), the Netherlands is among the countries with the highest vaccination rates in Europe (https://www.volksgezondheidenzorg.info/). In 2009 vaccination coverage in all immunization categories in this programme showed national-level uptake rates well above the lower limit of 90% (van Lier et al., 2009). HPV vaccination for 12-year-old girls has been included in the Programme since 2010. The percentage of children receiving this vaccination is growing; in 2015 it amounted to 61% (van Lier et al., 2015).

Three other important preventive programmes are screenings on cervical cancer, breast cancer and colon cancer. In 2013, 65% of the women invited for cervical cancer screening (aged 30–60) showed up for the test (National Institute for Public Health and the Environment, 2015a). This participation rate is lower than in the UK, Norway and Finland, but higher than in Belgium and considerably higher than in Ireland, Italy and France. Participation in breast

cancer screening, among women between the ages of 50 and 75, was 80% in 2012. This rate is well above the EU standard; only Finland has a higher participation rate (van den Berg et al., 2014a).

Major health challenges

As in many other countries, some of the health challenges in the Netherlands are related to trends which are basically favourable, such as the rising life expectancy. As a consequence of demographic developments and better diagnostic and treatment options (e.g. cancer is becoming more and more a chronic disease instead of a lethal illness), the share of people with chronic illnesses will grow from 32% of the population in 2011 to 40% in 2030. These people will increasingly have multi-morbidity (two or more chronic conditions). For many diseases, relatively expensive new treatments have become available (Public Health Status and Forecasts, 2014). These developments may challenge the affordability of the healthcare system.

Most people with chronic conditions will be able to participate normally in the community and have paid jobs (Public Health Status and Forecasts, 2014). Participation will increasingly be a must in the future. Governmental policies stress autonomy and self-activation, including for people with chronic conditions. However, not all people in this group – for instance, the elderly and those with complex problems – have this capacity and these people need support (Public Health Status and Forecasts, 2014).

Socio-economic differences in life expectancy are large and are likely to grow. The life expectancy for those with low educational attainment is currently six years shorter than for people with a high educational attainment. For Health Adjusted Life Expectancy (HALE) the difference is as much as 19 years (Public Health Status and Forecasts, 2014).

Overweight and obesity are growing threats to the health of the Dutch population. From self-reported data on obesity, an increase of more than 20% can be observed between 1990 and 2012. Almost half of the population now appears to be overweight.

Mental disorders are the largest contributors to the burden of disease in the Netherlands. Mood- and anxiety disorders and burn-out and depressions have a high impact as they bring severe limitations for a relatively long period of time. The epidemic of Alzheimer's disease among elderly people is a great challenge to both informal and professional care providers.

Another health threat is the quality of the atmosphere in this highly populated country. Currently, European limits on air quality cannot be met in all places, especially in highly urban areas. Although health risks are lower now as a result of decreasing concentrations of harmful substances, it is estimated that current levels of pollution still cause an average reduction in life expectancy of 13 months (Maas et al., 2015).

2. Organizational structure

Today's healthcare system in the Netherlands can be characterized as hybrid. Rooted as it is in the Bismarckian tradition of social health insurance, shared governance among the government, professional organizations and health insurers is a known phenomenon. The introduction, in 2006, of regulated competition has brought new actors and the government has adopted an even more distant role as supervisor and facilitator of the health markets. The trend of increasing decentralization of healthcare and social services, especially those for elderly people and patients with chronic conditions, has created a more prominent role for the municipalities.

The Dutch healthcare scene, with its numerous interdependent actors, relies on evidence and expert advice for decision-making. Advisory bodies can be distinguished by their focus: scientific, societal or related to the insurance benefit package. Research and knowledge institutes are either semi-dependent on the government, part of a university or fully independent. The health sector lobby consists of many associations representing health professionals, patients or employers in the sector.

Concentrations among health insurers and hospitals and decentralized organization of health and social services have been visible since the 1990s. Concentration largely occurred to strengthen positions in anticipation to the regulated healthcare market. For the government, the introduction of market forces meant less central planning and a focus on regulatory frameworks, the specifics of which are carried out by local agencies, or by self-regulation. Among the exceptions is the tight planning of medical professionals via a *numerus clausus* at the medical faculties. "Health-in-all-policies" is fragmented and not well developed, especially at the national level.

Information is a lubricant in the Dutch healthcare system. The health policy agenda of the Dutch government is partly based on scientific evidence: for instance, from health forecasting studies. Furthermore, specific notification registers and intelligence from the Health Inspectorate provide information on the state of healthcare. As a means of patient empowerment the government is actively providing information enabling patients to choose among healthcare providers. For decisions concerning the admission of treatments and procedures in the benefit package, health technology assessments are important. The information basis in primary care is at a high level. All general practices in the Netherlands use advanced electronic medical record systems. The national roll-out of a system to interconnect these practice-based systems is complicated, mainly for reasons of privacy.

The complex and extensive field of regulation in healthcare in the Netherlands can be divided into regulations regarding public health; quality of healthcare services; and health insurers and healthcare providers (including self-regulation). A special category concerns legislation and regulation on rights, complaints, and participation of patients and users. Cross-border arrangements in line with EU regulation can strengthen the purchasing position of health insurers, but a disadvantage is that the quality, necessity and costs of care may not be well controlled

2.1 Overview of the health system

The social insurance background of the healthcare system in the Netherlands, with dominant roles for not-for-profit sickness funds, independent providers and a modest role for the government, fits in a Bismarckian tradition. Special features of the Dutch system, however, are GPs in a gatekeeping position and independent community-based midwives responsible for uncomplicated deliveries. From its inception in 1941, social health insurance covered only the two-thirds of the population with lower incomes. For the other one-third a private health insurance scheme applied. In the later 1960s a social insurance scheme was also introduced for long-term care and later extended to elderly care and mental health services.

The major healthcare reform of 2006 not only brought the long-desired unified compulsory insurance scheme, it also drastically changed the roles of actors in the healthcare system. For example, multiple private health insurers now had to compete, in a regulated environment, for insured persons, and relatively independent bodies, rather than the government, became largely

responsible for the management of the system. Social support was delegated to the municipalities. In 2014 a stricter separation between generalist and specialist mental healthcare services was introduced, with a central role for general practice as care provider and point of referral to other services and institutions.

Sustainability was a major driver of the long-term care reform in 2015. A new law only covered the most severe cases, while support for home-bound patients and the elderly became a municipal responsibility. Home nursing and part of mental healthcare were included in the basic health insurance package. The organizational structure of healthcare is depicted in Fig. 2.1.

2.2 Historical background[1]

2.2.1 Government involvement in public health

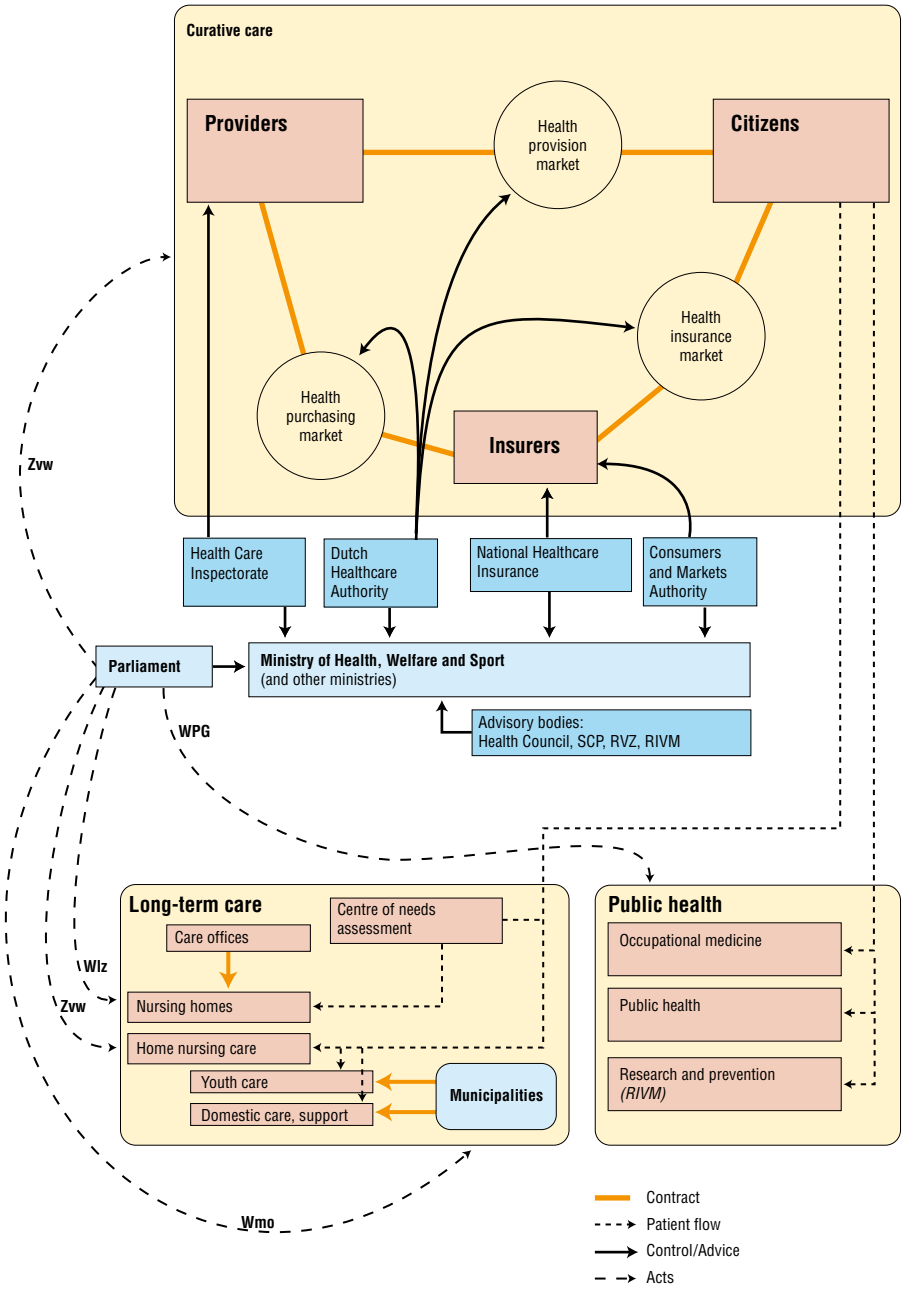
An early involvement of the government in the actual organization of public health was the gradual development of municipal health services (*Gemeentelijk Gezondheidsdienten*, GGDs) at the beginning of the twentieth century. Much later, in the 1980s, municipal health services were made a legal obligation and the municipalities became responsible for their management and funding.

Vaccination and screening are public health tasks of the national government. The National Vaccination Programme (*Rijksvaccinatieprogramma*) started in 1957 and was gradually expanded, while several cancer screening programmes have been introduced since the mid-1980s.

A system of state medical inspection was already established in 1865, following the Health Act (*Gezondheidswet*). In the twentieth century, four inspection areas were distinguished: healthcare, pharmaceutical care, mental healthcare and veterinary care. In 1995 the first three areas merged to become the Health Care Inspectorate (*Inspectie Gezondheidszorg*, IGZ), which is an independent advisory body to the Ministry of Health, Welfare and Sport.

[1] For more historical details, see Schäfer et al., 2010.

Fig. 2.1
Organizational overview of the Dutch healthcare



Source: Authors' compilation.

2.2.2 Development of health insurance

Early predecessors of the sickness funds were mutual funds founded in the first half of the nineteenth century by charities, physicians, pharmacists and other private individuals, and in the late nineteenth century also by labour unions. Gradually, fragmented voluntary arrangements were replaced by obligatory state health schemes (de Swaan, 1989; Veraghtert & Widdershoven, 2002). The adoption in 1913 of the Sickness Act (*Ziektewet*) marked the start of government interference, but it took until the Second World War before the Germans occupying the country installed a compulsory insurance system with sickness funds for employees earning less than a certain income level.

The benefit package was uniform, and relatives of employees were also covered. Contributions were paid by employees and employers in equal proportions. Services were provided on a benefit-in-kind basis. Those not employed could join a sickness fund on a voluntary basis (called "voluntary insurance"). Others, including those earning more than a defined income level, had to rely on one of the various private health insurance schemes (Boot & Knapen, 2001; Kappelhof, 2005; Veraghtert & Widdershoven, 2002).

A new Sickness Fund Act (*Ziekenfondswet*, ZFW) entered into force in 1966. The new Act continued the scheme of compulsory, voluntary and private health insurance, but added a new compulsory insurance for the whole population to cover severe medical risks (*Algemene Wet Zware Geneeskundige Risico's*, AWZ). The AWZ was replaced in 1967 with the Exceptional Medical Expenses Act (*Algemene Wet Bijzondere Ziektekosten*, AWBZ), which had a narrower scope.

The voluntary health insurance system, which disproportionately included (older) persons with unfavourable risks, was abolished in 1986 by the Act on Access to Health Insurance (*Wet op de Toegang tot Ziektekostenverzekeringen*, WTZ). People insured in the voluntary scheme were re-allocated either to the compulsory sickness fund scheme, or to private health insurance. Additional legislation was needed to prevent undesired effects.

The 1987 report of the government's Dekker Committee, entitled "Preparedness for change" (*Bereidheid tot verandering*), proposed a basic health insurance for the whole population and a smaller role for the government in the healthcare sector. On the basis of the principles of the Committee, successive cabinets made proposals but these were not accepted. It was not until 2004 that the Health Insurance Act (Zvw) was proposed, and it was introduced in 2006.

2.2.3 Developments in service provision

The provision of healthcare services in the Netherlands has a tradition of private initiative, often with roots in charity along religious or ideological lines. Home nursing, hospital care, nursing home care and care for the elderly were available in facilities with a Protestant, Roman Catholic, Jewish or humanistic orientation. These signatures gradually disappeared, but today most providers are still private and not for profit (den Exter et al., 2004).

Since 1965 the numbers of medical specialists, as well as the number of acknowledged specialties, have strongly increased and medical specialists outnumbered GPs (Boot & Knapen, 2005). Dutch medical specialists traditionally work independently within the hospital organization for both inpatient and outpatient care. In the past some had their own private practice outside the hospital, but this no longer exists. Their position in the hospital is unique. Most are formally self-employed and work in partnerships that are organized according to specialty and contracted to one of the hospitals. Nowadays, medical specialists and hospitals have become more integrated, which has been enhanced by financing by chain of care rather than by single service (see Section 3.7). Gradually more medical specialists are on the payroll of hospitals. Another trend has been that more specialists participate in independent treatment centres (*Zelfstandige Behandel Centra*, ZBCs). ZBCs are clinics for elective services which are permitted to provide care included in the basic insurance package (Companje, 2008).

General practitioners (GPs) are at the core of primary care. As a consequence of their gatekeeping function, patients need a referral from their GP before a medical specialist can be consulted. Single-handed practices used to be dominant, but since the 1970s partnerships, group practices and multidisciplinary health centres have become increasingly numerous, and more recently larger and more complex care networks have developed. Until the late 1990s out-of-hours primary care was organized by relatively small groups of GPs on a rota basis. Since the early 2000s larger-scale and well equipped out-of-hours GP centres (*huisartsenposten*) have been introduced throughout the country. Telephone triage can result in a visit by the patient to the centre or by a GP to the patient's home (Boot & Knapen, 2005).

Regionalization in the 1980s and mergers since the 1990s have ended fragmentation in mental healthcare and resulted in more integrated supply of services (Boot & Knapen, 2005). Today, mental healthcare is provided by large-scale institutions that offer a range of mental health services (van Hoof et al., 2008). In 2014 tasks in mental healthcare were reorganized. Basic services

are provided in primary care by GPs and mental health practice nurses and, after referral, by psychologists and psychotherapists. More severe mental health problems can be treated in secondary services, on referral by a GP.

2.2.4 Since the 1970s: a growing willingness to change

Continuing economic growth and a "laissez-faire" health policy from the early 1960s resulted in growing health expenditures. However, the oil crisis of 1973 required action to stop this trend. A White Paper issued in 1974 on the Structure of Health Care (*Structuurnota Gezondheidszorg*) (Boot & Knapen, 2005) expressed concern about the sharply increasing cost of healthcare and for the first time formulated a coherent vision for the healthcare sector. The government intended to have a greater influence on healthcare; to reorganize the planning of healthcare facilities combined with more community involvement; and the substitution of care in hospitals by primary care. Substitution had to be realized by a strengthened primary care sector (Sixma, 1997). However, a unified health insurance scheme for all citizens, also proposed by the White Paper, was rejected. Measures such as the Health Care Tariffs Act (*Wet Tarieven Gezondheidszorg*, WTG) of 1981 could not stem the rise in costs in the years after.

The strengthening of primary care continued to be a priority. The 1983 White Paper on Primary Care (*Nota Eerstelijnszorg*) proposed the promotion of efficiency in the healthcare system through a more coherent provision of primary care services. This document and the rise of the patient movement, asking for influence and participation, underlined the need for structural reforms (Kappelhof, 2005). The 1987 Dekker Plan, called "Willingness to change" (*Bereidheid tot Verandering*), was one answer. As well as attempting to realize the desired single health insurance scheme for all citizens, this plan was also innovative in that it was based on market principles. In a regulated environment, health insurers would compete for insured persons, and, to a limited extent, negotiate contracts with healthcare providers. Ideas from the Dekker Plan were the basis of the Simons Plan in 1992, which eventually failed in 1993. In those days, opinions about the feasibility and desirability of a regulated market in healthcare strongly differed (Maarse, 2001).

2.2.5 Recent reforms

After the reform failures of the 1980s and 1990s, exemplified for instance in the poorly implemented 1982 Health Care Facilities Act (*Wet Voorzieningen Gezondheidszorg*, WVG), a policy of small and feasible steps was adopted.

However, this policy could not solve the ongoing financial problems, and structural reforms were inevitable. The 2001 policy paper called "A question of demand" (*Vraag aan bod*) combined elements of the previous plans with new ones. From 2003 the policy paper resulted in a series of new Acts, such as the 2007 Social Support Act (*Wet Maatschappelijke Ondersteuning*, Wmo), which together were the overture to a systemic reform, characterized by managed competition and a single compulsory health insurance scheme. The landmark piece of legislation for this new system was the Health Insurance Act (*Zorgverzekeringswet*, Zvw), which came into force on 1 January 2006.

To reduce unnecessary specialist care, from 1 January 2014 mental healthcare in the Netherlands has been split in three compartments: GP-based mental care, Generalist Basic Mental Health Care (*Generalistische Basis GGZ*) and Specialist Mental Health Care (*Gespecialiseerde GGZ*). People with mental health problems go first to their GP, who provides mental healthcare in collaboration with a mental health practice nurse (*POH-GGZ*). When a DSM-IV disorder is suspected, the GP may refer a patient to Generalist basic care, which is primarily provided by psychologists and psychotherapists. For more complex mental problems GPs will refer patients to specialist services.

Since 1 January 2015 major parts of long-term care have been fundamentally reorganized and largely decentralized. The broad range of care that used to be covered by the Exceptional Medical Expenses Act (AWBZ) has been reallocated and the AWBZ does not exist any more. Home nursing, most personal care and long-term mental healthcare are now covered by the Health Insurance Act (Zvw), while support care, day care and elements of youth (mental health) care services have been delegated to the municipalities as part of the Social Support Act (Wmo). Finally, intensive care for vulnerable elderly and disabled people is provided under the new Long-term Care Act (*Wet Langdurige Zorg*, Wlz). Domestic care will only be covered if it cannot be organized via the recipient's social network or cannot be paid privately. More details are provided in Section 6.1.

2.3 Organization

2.3.1 Policy formation, implementation and evaluation

Health policy development in the Netherlands is complex and sometimes capricious. There are many actors involved and, although the final responsibility for the health sector lies with the government, it has only limited opportunities

to act autonomously on the basis of this responsibility. The tradition of self-regulation, private provision of services and financing via a system of social health insurance created a healthcare sector that is dominated by many mutually dependent actors with different backgrounds. Since the 2006 reform, through which three markets (for the delivery, purchasing and insurance of care, respectively) have become the heart of the healthcare system, this interdependence has only been strengthened while the role of the government became less dominant (van der Grinten, 2006).

The government still has an important role in health policy development and implementation. For example, via the budget for health and the content of the basic benefit package, the government has a major influence on cost development in the healthcare sector. Besides, the government has a major role in setting the health policy agenda, for instance on disease prevention. The four-yearly reports on the state of public health in the Netherlands provide important inputs to health policy and also enable an evaluation of policies in previous years (*Volksgezondheidstoekomstverkenning*, VTV). By providing the market parties with information and feedback, the government fulfils its responsibility for the system. Furthermore, the government may use observations and monitoring information on the delivery of services from its Health Inspectorate (IGZ).

Advisory bodies (see Section 2.3.5) and research institutes (see Section 2.3.9) play an intermediate role. Different actors in the healthcare system can commission reports either on the state of knowledge in certain policy areas or to clarify the consequences of different policy options. Such information can be used in the debates among stakeholders (Council for Health Research, 2008). Using advisory bodies is not only supposed to improve the quality of policy decisions but is also seen as a way of gaining support in the complicated decision-making processes of Dutch governing coalitions. Apart from that, it should be stressed that the health policy process is by no means fully evidence-based. In general, evidence is not the most important determinant of health policy decisions.

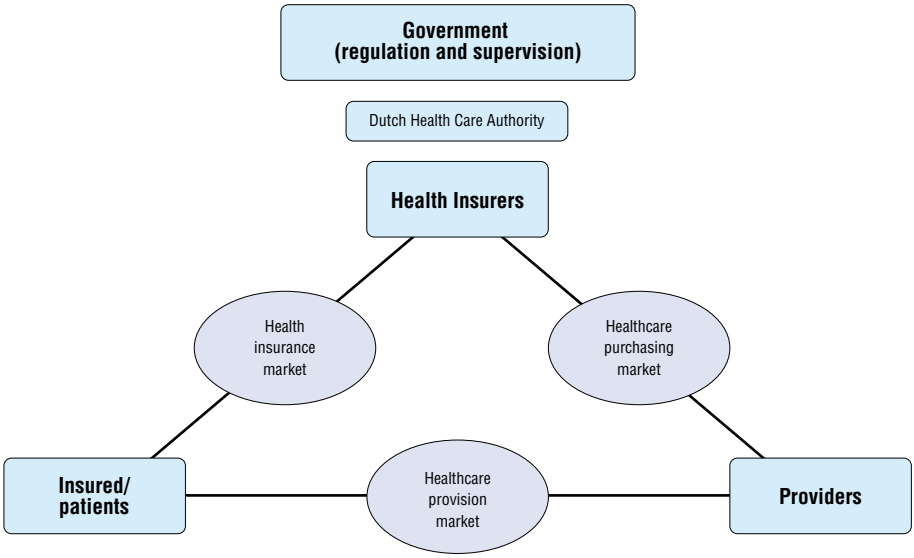
2.3.2 Managed competition as a driving mechanism

The 2006 Health Insurance Act (Zvw) and the Health Care Market Regulation Act (*Wmg*) introduced managed competition among actors as a new driving mechanism in healthcare. This implied a role change for the government from direct control of volumes and prices to rule-setting and overseeing a proper functioning of the markets. The actual market players – health insurers,

insured people and healthcare providers – operate in three markets: (1) for health insurance, (2) for health services provision and (3) for healthcare purchasing (see Fig. 2.2). In the health insurance market, health insurers offer the basic insurance package, which is obligatory for all citizens. The healthcare purchasing market is where health insurers can negotiate with providers on price, volume and quality of care. In the health services provision market, providers offer care that patients can choose to use. In their policies, health insurers may impose restrictions on the patients' free choice of provider (usually in return for a lower premium).

Fig. 2.2

Actors and markets in the Dutch healthcare system since 2006



Source: Authors' compilation.

Freedom of choice is essential in this system. To freely choose their health insurer and providers, patients need to be reliably informed about insurers and providers. Therefore, the government has put increased effort into making information available on waiting lists, quality and prices of care through the Internet (see also Section 2.9). The content of the basic health insurance package is fixed, but insurers can compete on the price of policies and the quality of care offered, as long as they observe both the obligation to accept applicants and the ban on premium differentiation. They have freedom in the content of the complementary voluntary health insurance (VHI) that they offer. Based

on considerations of quality and cost of services that providers offer, insurers may or may not decide to contract healthcare providers (selective contracting). However, at all times they must fulfil their duty to offer adequate care. Negotiation on price and quality is regulated by the supervisory bodies and is being introduced gradually. Providers can compete for patients by offering good quality of care and for insurers by offering attractive (e.g. integrated) care arrangements. The Dutch Health Care Authority (*Nederlandse Zorgautoriteit*, NZa) is in charge of monitoring the proper functioning of the healthcare markets.

The Dutch healthcare system is structured on several levels. Public health is provided by services for occupational medicine, institutions for youth healthcare and municipal health services (*GGDs*). Primary care comprises a broad range of personal curative and preventive services, at the heart of which is general practice in which GPs hold a gatekeeping position. In the general and university hospitals medical specialists provide both inpatient and outpatient specialist care. Long-term care can be institutional, in nursing homes, or community-based as home nursing care.

The next sections provide an overview of the responsibilities of central and decentral governmental bodies, and the various other organizations that play a role in healthcare, including those representing patients.

2.3.3 Ministries involved in healthcare

Primary responsibilities for health and healthcare lie with the Ministry of Health, Welfare and Sport. It develops policies and measures to promote the health and well-being of the Dutch population and to safeguard access to a high-quality system of healthcare (den Exter et al., 2004). Increasingly, these responsibilities are shared with local authorities. The operational role of the government in the delivery of services is very limited, as this is largely delegated to private initiative and non-governmental organizations.

The Ministry of Finance has a direct responsibility for healthcare via the Tax and Customs Administration (*Belastingdienst*) that not only levies social health insurance contributions via employers but also pays out the so-called "healthcare allowance" (*zorgtoeslag*). This is a tax subsidy introduced with the 2006 reform to compensate lower-income groups for an excessive premium burden for basic health insurance.

Among other things, the Ministry of Social Affairs and Employment (*Ministerie van Sociale Zaken en Werkgelegenheid*, SZW) has a responsibility for health-related social security schemes covering sickness and disability benefits. These are outside the health insurance scheme and they are funded by contributions jointly paid by employers and employees.

2.3.4 Supervision and inspection

Health Care Inspectorate (IGZ)

The Health Care Inspectorate (IGZ) is independent from the Ministry of Health, Welfare and Sport in its supervision of the quality and accessibility of healthcare. The Inspectorate enforces statutory regulations on public health; it investigates accidents and complaints about healthcare; and it takes appropriate measures. Furthermore, IGZ is an advisory body to the Minister (den Exter et al., 2004). In the case of youth (health) care and protection, IGZ collaborates with the Dutch Inspectorate for Youth Care (*Inspectie jeugdzorg*, IJZ) and the Safety and Justice Inspectorate (*Inspectie Veiligheid en Justitie*).

Dutch Health Care Authority (NZa)

The Dutch Health Care Authority (NZa) is independent, although it is funded by the Ministry of Health, Welfare and Sport. Overall, the NZa supervises the core principles of the Health Insurance Act, namely the obligation of insurers to accept any applicant and offer proper care and to respect the ban on differentiation of insurance premiums. More specific tasks of the NZa, as defined in the Health Care Market Regulation Act (*Wet marktordening gezondheidsorg*, Wmg), include supervision of the three healthcare markets and the capability to impose tariff and performance regulations. In the healthcare purchasing market, for instance, NZa defines the – negotiable – units of care that providers can declare. The NZa has the power to impose obligations on players that have obtained "significant market power", for instance to adapt prices in line with NZa rules. Furthermore, for the protection of the users of healthcare services, the NZa can set rules for care providers and health insurers to increase their transparency (Ministry of Health, Welfare and Sport, 2005). The NZa's combination of regulatory and supervisory roles is complex in the relationship with the Ministry of Health, Welfare and Sport. Currently, there is an increased awareness of these roles and how to safeguard independence[2].

[2] www.rijksoverheid.nl. Kamerbrief van minister Schippers (VWS) aan de Tweede Kamer over de voortgangsrapportage NZa. 18 December 2015 [Letter of the Minister of Health to the Second Chamber of parliament concerning the progress report NZa, 18 December 2015].

Consumers and Markets Authority (ACM)
In 2013 the previous Dutch Competition Authority (NMa) was merged into the Consumers and Markets Authority (*Autoriteit Consument & Markt*, ACM). The ACM has a general mission to enforce fair competition in all sectors of the Dutch economy, to prevent cartels and dominant market positions and protect the position of consumers. In that role it also supervises health insurers and healthcare providers. As the responsibilities of the ACM are related to those of the NZa, collaboration between them has been laid down in a protocol. In case of overlapping responsibilities in the healthcare sector, the NZa will first exert sector-specific authority.

The **Medicines Evaluation Board** (*College ter Beoordeling van Geneesmiddelen*, CBG) assesses and guards the efficacy, safety and quality of human and veterinarian medicinal products and new food products. The Board operates independently and is responsible for the authorization and monitoring of pharmaceuticals.

Other supervisors
Health insurers are also subject to supervision from the Netherlands Authority for the Financial Markets (*Autoriteit Financiële Markten*, AFM) and the Dutch Central Bank (*De Nederlandsche Bank*, DNB). The AFM supervises the activities of financial institutions and the DNB looks at the integrity and the solvency of health insurers.

2.3.5 Advisory bodies

Since the early 1990s the government has started to reduce the strong proliferation of advisory bodies.

Health Council
The Health Council (*Gezondheidsraad*) advises the government, both on request and on its own initiative, on the scientific state of the art in medicine, healthcare, public health and environmental protection. The Council is government-funded and consists of about 170 members from different disciplines that cover the six focus areas of the council: optimal healthcare, disease prevention, healthy eating, healthy living, healthy working conditions, and innovation and knowledge infrastructure (www.gezondheidsraad.nl/).

Council for Public Health and Society (RVS)
The Council for Public Health and Society (*Raad voor de Volksgezondheid en de Samenleving*, RVS) is an independent advisory body, consisting of nine members, installed by the Ministry of Health, Welfare and Sport for strategic advice on healthcare and welfare policy (den Exter et al., 2004). The Council aims to show different perspectives in a changing societal context.

National Healthcare Institute (ZiNL)
From 2014, the National Healthcare Institute (*Zorginstituut Nederland*, ZiNL) is the continuation of CVZ (*College voor Zorgverzekeringen*). ZiNL is responsible for the quality, accessibility and affordability of the healthcare system. Furthermore, it advises the Minister on the basic health benefit package and executes regulation on non-payment of premiums and uninsured people (www.zorginstituutnederland.nl/).

2.3.6 Health insurers

Dutch health insurers have a background as either a former (public) sickness fund or a private indemnity insurer. Since 2006, all health insurers have operated under private law that would allow them to make profits and pay shareholders. However, until now and for the time being they are prohibited from making such payments. The market is dominated by insurers operating on a not-for-profit basis. The umbrella organization of (currently nine) health insurers is Health Insurers Netherlands (*Zorgverzekeraars Nederland*, ZN) (https://www.zn.nl/). In 2014 there were 26 health insurers, grouped into nine business groups. The four largest companies had a market share between 13 and 32%; together these four covered 90% of the health insurance market, and only one was for-profit (Dutch Healthcare Authority, 2014b).

2.3.7 Third sector organizations

Civil society or the third sector has been abundantly developed in the Netherlands and the healthcare sector is no exception. Consultation and consensus between the government and the many lobbies are typical in the complex process of healthcare decision-making.

Organizations of health professionals
Each health profession usually has its own organization, association, college or society to advocate for professional interests as well as to contribute to scientific development and quality. Their number amounts to more than a hundred. Besides defending material interests, these organizations may be active in

professional development, continuing education, developing guidelines and, more generally, promoting the quality of care provided by members. Some examples are mentioned below.

The two oldest associations are the organizations for pharmacists and physicians. The Royal Dutch Association for the Advancement of Pharmacy (*Koninklijke Nederlandse Maatschappij ter Bevordering van de Pharmacie*, KNMP) was established in 1842, while the Royal Dutch Medical Association (*Koninklijke Nederlandsche Maatschappij ter bevordering van de Geneeskunst*, KNMG) was set up in 1849. KNMG is the umbrella for the associations of physicians (den Exter et al., 2004). For GPs there are two complementary organizations: the National Association of GPs (LHV), and the Dutch College of GPs (NHG), which is a scientific organization. Most GPs are a member of both. Medical specialists are organized in the Federation of Medical Specialists (FMS), established in 2015. The 32 scientific organizations from separate specialties work together in the Federation.

Other professional organizations include:

- For nursing professionals: the "Nurses and Carers Netherlands" Association (*Verpleegkundigen en Verzorgenden Nederland*, V&VN)
- For physiotherapy: the Royal Dutch Society for Physical Therapy (*Koninklijk Nederlands Genootschap voor Fysiotherapie*, KNGF)
- For midwives: the Royal Dutch Association of Midwives (*Koninklijke Nederlandse Organisatie van Verloskundigen*, KNOV)
- Independent (day care) clinics are represented by *Zelfstandige Klinieken Nederland* (ZKN). Members of ZKN offer both care under the basic health insurance and other forms of care
- The umbrella for public health and disease prevention is the Dutch Association for Prevention and Health Promotion (*Nederlandse Vereniging voor Preventie en Gezondheidsbevordering*, NVPG).

Employer organizations in the healthcare sector

Employers in the healthcare sectors, such as hospitals, nursing homes and home care providers, also have their own organizations. An example is the Dutch Hospitals Association (*Vereniging van Ziekenhuizen*, NVZ), whose members are both general hospitals and specialist healthcare institutions. NVZ supports its members in care as well as in economic and social issues, with knowledge development and training.

For the mental health sector, Mental Health Care Netherlands (*GGZ Nederland*) negotiates and aims to find agreement with the government, health insurers and patient organizations. It also offers financial and labour law-related services to its members.

ActiZ is the sector association for employers in the branches of care, housing, welfare, birth care and youth care. ActiZ concludes collective labour agreements and is active in knowledge development and innovation.

2.3.8 Patient organizations

Among the many patient organizations, two groups can be distinguished: generic organizations, advocating the interests of general users of health services, and categorical organizations, for patients with a specific condition. The umbrella for more than 160 organizations from both categories is the Patient Federation (*Patiënten Federatie*, NPCF). The NPCF supports patients both individually and generally in the healthcare system, inter alia by providing information that helps them to make choices in healthcare. In 2014 two-thirds of its budget was accounted for by project subsidies and 12% by grants from the Ministry of Health, Welfare and Sport (http://jaarverslag.npcf.nl/2014/). "Ieder(in)" is an umbrella association serving 250 member organizations for people with physical disabilities, learning disabilities or chronic diseases (www.iederin.nl). Ieder(in) defends the interests of its target groups, and provides support and services.

2.3.9 Infrastructure for knowledge and research

As the Dutch healthcare system, at all levels, has a high need of information and feedback, healthcare research is well developed. The demand for evidence, from both the private and the public sector, is met by a variety of institutes linked to the government and universities.

The Netherlands Organization for Health Research and Development (ZonMw) holds a unique intermediary and overarching role in this field; it funds health research and promotes the application of knowledge for the benefit of health and healthcare. ZonMw holds regular grant application rounds for projects to be carried out in its programmes. Nine knowledge themes have been identified: efficiency; mental health; pharmaceutics; youth; quality of care; elderly people; palliative care; prevention; and translational research. The main commissioners of ZonMw are the Ministry of Health, Welfare and Sport and the Dutch Organization for Scientific Research (*Nederlandse Organisatie voor Wetenschappelijk Onderzoek*, NWO).

2.3.10 Government institutes

National Institute for Public Health and the Environment (*Rijksinstituut voor de Volksgezondheid en Milieuhygiëne*, RIVM)

RIVM is a major state institute with various functions, including advising on environmental issues and policy support in key public health areas. As the central institute for infectious disease surveillance and control, RIVM manages the National Vaccination Programme. Furthermore, it is active in disease prevention, such as assessment of food quality and consumer safety. Finally, it generates knowledge on pharmaceuticals and has a role in the admission and introduction of new pharmaceuticals. Every four years RIVM publishes national health reports, called "Public Health Status and Forecasts" (*Volksgezondheid Toekomst Verkenning*, VTV), the most recent version in 2014. With inputs from many institutes and research groups, VTVs are influential as they provide a comprehensive overview of the state of disease and health, and are determinants of health and healthcare and health policy.

The Netherlands Institute for Social Research (SCP)
The Netherlands Institute for Social Research (*Sociaal en Cultureel Planbureau*, SCP) is an interdisciplinary social scientific research institute, formally subordinate to the government. The SCP describes the social and cultural situation in the Netherlands and provides forecasting of developments. Its reports are meant to feed public discussion and provide evidence for policy development. Major topics of the SCP research group on Care, Emancipation and Time Use are health and the use of care and support services, and the life situation and well-being of older people and people with disabilities (www.scp.nl/).

2.3.11 Independent research and knowledge institutes

The following institutes are formally independent, but that does not mean that they do not depend on subsidies, for instance from the Ministry of Health, Welfare and Sport.

Movisie is a knowledge institute for organizations involved in solving social problems in the field of welfare, social participation, social care and social safety.

NIVEL, the Netherlands Institute for Health Services Research (*Nederlands instituut voor onderzoek van de gezondheidszorg*), is an independent foundation, active in scientific research in all sectors of healthcare, both nationally and abroad.

NJi, the Netherlands Youth Institute (*Nederlands Jeugdinstituut*), is a network intended to generate and apply knowledge for youth care and education.

Trimbos-institute (*Netherlands Institute of Mental Health and Addiction*) is a knowledge centre for mental healthcare, addiction problems and associated physical diseases.

Vilans is an independent institute involved in development intended to promote innovation in the long-term care sector.

2.3.12 Health care research at universities

A great deal of medical research is carried out at the medical faculties of all universities in the Netherlands. In addition, institutes and research groups at universities are also active in healthcare research. Examples include:

CAPHRI, the School of Public Health and Primary Care at Maastricht University, is involved in innovative, applied, ethical and policy-related research.

EMGO Institute in the VU Medical Centre at VU University in Amsterdam predominantly conducts research in primary care and public health, in particular on chronic diseases and ageing.

iBMG, the Institute of Health Policy and Management at Erasmus University, Rotterdam, focuses on management of healthcare institutions, health economics, health law, healthcare governance and health insurance.

IQ healthcare, which is a department in the Radboud University Medical Centre in Nijmegen, undertakes scientific and applied research to improve the quality of care.

The *Social Medicine department* at Amsterdam Medical Centre (AMC), part of the University of Amsterdam, is involved in epidemiological and social-scientific research on social determinants of health, health promotion strategies and healthcare performance.

Tranzo at Tilburg University is a centre for applied research to promote evidence-based practice in the care and welfare sector.

UMC Utrecht Julius Centre, part of Utrecht University, is involved in applied clinical research and innovation in methods of clinical research. The Julius GP Centre is active in practice-based research for innovation and quality in primary care.

2.4 Concentration and (de)centralization

The balance of responsibilities in the Dutch healthcare sector has shifted repeatedly over time. In the years between 1974 and 1987 the need for cost containment resulted in a government emphasis on strictly regulating tariffs, hospital construction and the volume of care. From 1987 onwards, the government started to delegate more responsibilities to the healthcare sector. Following the proposals made by the Dekker Committee in 1987, market mechanisms took the lead in the organization of healthcare. After a few failed attempts, eventually a major step was achieved with the introduction of regulated competition in the 2006 Health Insurance Act (*Zvw*) and the Health Care Market Regulation Act (*Wmg*) under which the government adopted a more distant supervisory role.

The effects of the 2006 reform were not limited to the role of the government, but had a much broader impact on the organization of healthcare as a whole. Well before the start of the reform, the healthcare sector anticipated the increasing market elements with scale enlargement. Private insurers and sickness funds merged into large companies in order to strengthen their competitive position and to obtain sufficient countervailing power, especially in relation to healthcare providers (van der Lee, 2000). As a result, the number of health insurers decreased from 118 in 1990 to 26 in 2014 (Vektis, 2009; Dutch Healthcare Authority, 2014b). Probably more important is that most of these insurers belong to nine insurer groups, four of which held 90% of the market (Dutch Healthcare Authority, 2014b).

The merging of hospitals, an on-going process since the 1960s, was intensified for market strategic reasons and to create more countervailing power against health insurers. Moreover, government policy provided an incentive for mergers, as the budget of merged large hospitals was higher than the sum of the budgets of the smaller hospitals before the mergers (van der Lee, 2000). Between 1982 and 2005 the number of hospital organizations declined significantly, from 172 to 94 (van der Lee, 2000; MacGillavry & Zwakhals, 2005).

In 2015 long-term care and parts of youth care experienced a major decentralization as several parts were delegated to the municipalities in the Social Support Act (*Wmo*). The basic principle of this decentralization is "local as far as possible; regional where necessary". Municipalities that are too small for the new tasks are urged to collaborate or even merge in order to have the necessary expertise available and to act as the purchasers of care. In addition, health insurers have attained a new role in long-term care, nursing

care and personal care in the home situation, and the first three years of long-term mental healthcare have been transferred to the Health Insurance Act (*Zorgverzekeringswet*, Zvw).

2.5 Planning

Before the 2006 healthcare reforms, planning of healthcare services was supply-oriented with a strong influence from the government. The reforms aimed at a more demand-driven and patient-centred system powered by market incentives and reduced government interference (Ministry of Health, Welfare and Sport, 2006). Health care providers have become responsible for bringing their planning in line with patients' needs and their entrepreneurial behaviour is encouraged. Since January 2009, for instance, healthcare providers are responsible for investment in their premises and equipment (see Section 4.1). As a basic safety check, healthcare providers offering care covered by the Health Insurance Act or the Long-term Care Act need an admission according to the Health Care Institutions Admission Act (WTZi). The WTZi maintains rules of good governance for these providers.

The planning of nursing homes is characterized by attempts to improve the quality of care and to adapt the volume to the expected de-institutionalization effects of the Long-term Care Act (Wlz). The debate on nursing home quality has been nurtured by repeated publicity about poor circumstances in nursing homes. The government aims to turn the tide by setting a number of targets. Nursing homes should be: more transparent; improve collaboration with clients and relatives; pay more attention to the quality of their professionals; promote safety; and develop better governance. In the meantime, bed capacity in nursing homes is declining as a result of government policy that encourages individuals, such as the elderly and those suffering from Alzheimer's disease, to stay at home for as long as possible, supported by home care. Some nursing homes have closed already, which, in certain cases, led to financial problems with the institution that owns the property.

2.5.1 Human resources planning

Although a system of human resource planning and forecasting exists for several health professions, shortages may nevertheless occur in certain areas. For providers this may result in higher workloads. The determinants of high workloads, waiting lists, postponements and shortages are complex and highly interrelated. Health workforce planning is an important instrument

for forecasting and controlling shortages and oversupply. The Capacity Body (*Capaciteitsorgaan*) is an advisory body to the Minister of Health on the inflow into all specialized postgraduate training programmes in the Netherlands. It uses a workforce forecasting model for physicians, in which assumptions and statistics on demand and supply of the health workforce are taken into account. The volume planning of medical doctors is regulated through a *numerus clausus*. This aims to prevent the oversupply of students, to curb the costs of medical education, and also, from the perspective of the physicians, to protect their position. After a long period of central selection, since the 1960s, which was based on a combination of chance and average school grades, selection procedures are increasingly delegated to the universities.

For other healthcare personnel no such mechanisms exist. For nurses, national, regional and local organizations can monitor labour market developments and develop plans on the balance between supply and demand for nursing professionals. Basic training for nurses, midwives and allied health professionals (such as physiotherapists and speech therapists) is normally provided in vocational training institutes, financed by the Ministry of Education, Culture and Science. Institutes can set their entrance volumes, usually without external limitations. Since 2014, hospital-based follow-up specialist training for nurses (and medical support staff) is financed by the Ministry of Health, Welfare and Sport (via NZa) through "Availability contributions" (*Beschikbaarheidsbijdragen*). The available places for in-service specialized nurse training are set by the relevant healthcare institutes. For more details see Section 4.2.3.

2.6 Intersectorality

Focal points of Health-in-all-policies can be at either local, national or international level. The 2007 governmental vision "Being healthy, staying healthy" recommended promoting Health-in-all-policies but at the national level such policies have not been developed. There are examples of intersectoral cooperation between the Ministry of Health, Welfare and Sport and other ministries, as shown in Table 2.1, but these are rather fragmented.

Table 2.1
Examples of Health-in-all-policies in the Netherlands

Sector	Content of Health-in-all-policies
Life style	
Excessive alcohol consumption	Different ministries involved in alcohol misuse prevention policies, including information campaigns, prohibition on alcohol sales to people under 18, and measures on bars etc.
Smoking	Different ministries have taken a combination of measures to reduce smoking, including the establishment of smoke-free public spaces; a ban on tobacco advertisements; and taxation. Health-promoting media campaigns have been undertaken.
Physical exercise	The National Action Plan for Sport and Physical Exercise (*NASB*) was directed at those who are insufficiently active. Municipal policies regarding public health, welfare and environmental planning can promote physical exercise as well.
Body weight	In 2009 the Ministries of Health, Welfare and Sport and Education, Culture and Science signed the "Healthy Weight" covenant with eight social organizations. A sub-covenant concerns "Youth and Healthy Weight" (JOGG), in line with a French model.
Physical and social environment	
Food safety	The Ministry of Health, Welfare and Sport is collaborating with the Ministry of Economic Affairs on food safety and the policy paper on food.
Physical environment	The National Action Plan for Environment and Health is focused on: better quality of in-house environment; healthy design of the physical environment; better information for citizens on local environment and monitoring of environmental health problems.
Traffic safety	Many parties are involved in the strategic plan (2008–2020) on traffic safety; the Ministry of Health, Welfare and Sport is involved on the topics of drugs and alcohol.
	The "Healthy Districts Approach" (*Gezonde wijkaanpak*) is a collaboration of 10 ministries. At the local level housing corporations, health insurers and municipal services collaborate on activities related to: healthy lifestyle; healthy living environment; and accessibility of care.
Target groups	
People with low socio-economic status (SES)	Eight ministries are involved in the Large Cities Policy. The Ministry of Health, Welfare and Sport is coordinating the social component of this policy (concerning the health of people with low SES).

Source: Compiled from http://www.nationaalkompas.nl/preventie/.

The Netherlands seems to lag behind other countries in the implementation of Health-in-all-policies; countries such as the United Kingdom, Finland and Sweden, for example, have developed such policies, especially in the area of mental health and socio-economic health inequalities. On the municipal level, however, the attention paid to Health-in-all-policies has increased over the last few years. In the absence of central steering, however, municipalities often struggle to achieve appropriate implementation. Possibilities for public–private partnership are sparsely used.

2.7 Health information management

High-quality information on healthcare provision receives a great deal of attention in the Netherlands, not just for monitoring the performance of the healthcare system, but also to inform the actors in the healthcare system.

Patients, for instance, need information to make informed choices about where to seek care and which insurance policy best fits their situation. More on patient information systems is provided in Section 2.9.

2.7.1 Information systems

Requirements for information systems in healthcare are growing. Many hospitals are investing in new systems that allow them to share information both within the organization and with partners in care chains, such as GPs, pharmacists and laboratories. Most GPs in the Netherlands use information systems that enable them to link electronic patient files to an expert system (such as guidelines), communicate with pharmacists and generate data for disease prevention and research. For example, the NIVEL Primary Care Database (*NIVEL Zorgregistratie*, NZR) gathers data from a large representative sample of GP practices to monitor GP care in the Netherlands for health policy and epidemiological purposes.

A national roll-out of the Electronic Patient Record (*Electronisch Patiënten Dossier*, EPD) failed after vigorous debate and opposition. The national EPD was not meant to be a central database of patient data, but rather an infrastructure for care providers drawing from local databases of individual healthcare providers. It aimed to reduce the likelihood of medical errors resulting from lack of information, especially in out-of-hours care. Many GPs resisted a central exchange of patient data because they feared unqualified access to the information. Eventually the roll-out was blocked in the Senate because the privacy of patients was insufficiently guaranteed. Currently more pragmatic new initiatives seek to exchange patient data in a more feasible way. A new system called Care Infrastructure (*Zorginfrastructuur*), which is the new name for EPD, allows care providers to exchange information on patients and the use of pharmaceuticals on a voluntary basis. GPs, pharmacists and medical specialists may only exchange data from patients who have explicitly given consent. It should be noted that the current system does not allow patients access to their medical data. Since 2012, the Association of Care Providers for Care Communication (*Vereniging van Zorgaanbieders voor Zorgcommunicatie*, VZVZ) has been responsible for Care Infrastructure (https://www.vzvz.nl/).

National Basic Registration Hospital Care (*Landelijke Basisregistratie Ziekenhuiszorg*, LBZ; or before 2014 *National Medical Registration*, LMR) collects medical, administrative and financial data for the care of patients admitted to hospital, in day care, in long-standing observation, and outpatient hospital treatment. LBZ data are elaborated and analysed by DHD (Dutch

Hospital Data), which has jointly been established by the Dutch Hospital Association and the Dutch Federation of University Medical Centres. The National Information System for Diagnosis–Treatment Combination (*DIS, Landelijke DBC-informatiesysteem*) is a database including all declared care products from hospitals, mental healthcare providers and forensic care. It is based on data from these care providers.

Mortality data are collected from the population register (*bevolkingsregister*). In case of death, a death certificate (*doodsoorzaakverklaring*), produced by a physician, has to be included in the population register. The provision of these data is a legal requirement. Mortality statistics are published by Statistics Netherlands (CBS).

Data on adverse drug reactions (ADR) are collected by the Dutch Pharmacovigilance Centre (*Bijwerkingencentrum*, *LAREB*). LAREB registers ADRs notified by physicians, pharmacists and patients with the aim to prevent harm from pharmaceuticals by tracing unknown side-effects. The legal basis for this is laid down in the Medicines Act (*Geneesmiddelenwet*).

Health care providers must notify the occurrence of 43 infectious diseases, including smallpox, poliomyelitis, diphtheria, rabies, tuberculosis, variants of hepatitis, whooping cough, rubella and mumps. Voluntary reports are registered for infections with MRSA and bacterial meningitis. Infectious diseases are monitored by the Infectious Diseases Surveillance Information System (*Infectieziekten Surveillance Informatie Systeem*, ISIS). ISIS is organized by municipal public health services (GGDs) and does not have nationwide coverage.

Food contamination and poisonings are registered by the Dutch Food and Consumer Product Safety Authority (*Nederlandse Voedsel- en Warenauthoriteit*, VWA). The VWA monitors the health of animals and plants; animal welfare; and the safety of consumer products. The VWA controls the whole production chain, from raw materials to end products and consumption.

Data on victims of injuries and those who are treated in emergency departments of Dutch hospitals are registered in the Injury Surveillance System (*Letsel Informatie Systeem*). Personal data and details of the circumstances of accidents are used for epidemiological research and management purposes in the participating hospitals.

The Ministry of Health, Welfare and Sport keeps an online account of all medical information and registration systems in the Netherlands. A web site (www.volksgezondheidenzorg.info/zorggegevens) provides information on: the content of the registration system or database; the availability of the collected

data; the collectors of the data; the contractors of the data collection; and the users of the data. For steering and coordination regarding the provision of information in healthcare, the Ministry of Health, Welfare and Sport has installed an Information Committeee (*Informatieberaad*) in which relevant issues are discussed among stakeholders.

2.7.2 Health technology assessment

Evidence from Health technology assessment (HTA) is essential for policy decisions on the benefit package and on appropriate use of medical devices. Criteria of effectiveness and cost-effectiveness that guide these decisions have addressed the need for economic assessments of new and current technologies (Berg, van der Grinten & Klazinga, 2004). In the early 1990s the National Fund for Investigative Medicine (*Fonds Ontwikkelingsgeneeskunde*) was created to finance such evaluations (den Exter et al., 2004). In 1999 the fund was replaced by a programme called Efficiency Research (*DoelmatigheidsOnderzoek*), coordinated by the Netherlands Organization for Health Research and Development (ZonMw). The Ministry of Health, Welfare and Sport considers the programme a major instrument to achieve better and affordable care. In 2014 it provided almost 30 million euro to prolong the programme for the period 2016–2018.

The Medicines Evaluation Board (*College ter Beoordeling van Geneesmiddelen*, CBG) is responsible for the supervision and assessment of the efficacy, risks and quality of pharmaceutical drugs for humans and animals. Furthermore, the Board is in charge of the assessment of the safety of new human foodstuffs. The Board is an independent organization, whose members are appointed by the Minister of Health, Welfare and Sport.

Authorization of a drug by the Board does not imply reimbursement by the health insurers. The reimbursement decision is taken by the Minister on the basis of advice from the National Healthcare Institute (*Zorginstituut Nederland*), which absorbed the former *Commissie Pharmaceutische Hulp* (CFH) in 2014.

2.8 Regulation

The 2006 healthcare reform brought new regulatory mechanisms and structures to the Dutch healthcare system, including a less controlling role for the government and responsibilities transferred to insurers, providers and patients. New "watchdog" agencies should prevent undesired healthcare market

effects. The delegation of responsibilities to the municipalities has resulted in more diverse care arrangements. Furthermore, self-regulation has always been an important characteristic of the Dutch healthcare system. Professional associations are involved in periodic re-registration and quality improvement.

Obviously, a regulated market system is not perfectly compatible with central planning. Institutions must be licensed by the government but construction plans and other capital investments are largely left to the relevant actors. One remaining area of strict central planning is the health workforce. The inflow of medical students and the volume of training for medical specialties are largely set on the basis of forecasting and capacity plans.

In addition to the various advisory bodies described earlier in this chapter, the Dutch healthcare sector also relies on an extensive infrastructure for research and development.

Role of the government

The government has ultimate responsibility for the healthcare sector so that it results in safe, accessible and affordable healthcare of good quality. Obviously, setting the national health budget is an essential competence of the government. Furthermore, the government sets the rules for risk adjustment among health insurers (see Section 3.3.3).

Municipalities, through their public health departments (GGDs), are the supervisors of the population's health at a local level. In enterprises and companies, agencies for occupational medicine (*ARBO Diensten*) are responsible for safety and disease prevention. The provision of some preventive services, such as influenza vaccination for high-risk groups and cervical cancer screening, are integrated in primary care and general practice (see Section 5.3). For the preventive care sector, the tasks of the authorities are defined in the Public Health Act (*Wet Publieke gezondheid*, WPg). The central government sets main targets for prevention, while municipalities are responsible for the implementation of the Act.

National policy statements

In 2014 "Public Health Status and Forecasts" (*Volksgezondheid Toekomst Verkenning*, VTV) formulated the following four key challenges for public health in the Netherlands:

- keeping people healthy as long as possible and curing those who are ill;
- supporting vulnerable people and promoting societal participation;
- stimulating autonomy and freedom of choice; and
- maintaining affordable healthcare.

The intended priorities formulated in the government's 2016 health budget have a shorter horizon, https://www.rijksoverheid.nl/onderwerpen/prinsjesdag/. The main issues the government aims to address in 2016 are:

- changes in the health sector that are visible for citizens (more responsive services; more and better information for citizens to make choices);
- pharmaceutical policies that improve quality and contain costs, in particular concerning new and expensive drugs;
- better care in nursing homes (more day care; better educated and trained staff);
- incentives for health insurers to purchase better care for chronically ill and vulnerable groups;
- less bureaucracy in the care sector through simpler regulation;
- fighting antibiotic resistance nationally (plan for the years 2015–2019) and internationally (during EU presidency in 2016);
- stimulating information and research on dementia (national plan on dementia); and
- stimulating e-Health applications.

Advice from the Health Council (*Gezondheidsraad*) usually has a considerable influence on health policy in the Netherlands. For instance, in 2013 a population screening programme for intestinal cancer started in the Netherlands following the advice of the Council. In 2015 the Council produced authoritative advice on healthy food.

The role of the EU and WHO

EU treaties give Member States the competence to design and organize their social security systems, including healthcare. Via the Economic Semester, however, the EU can also provide specific recommendations to Member States. In the past, for instance, the Netherlands was advised to reform its long-term care. In addition, general international regulation can have an impact on the healthcare sector, and there may be softer but important influences from general health strategies, for instance those developed by the EU and the WHO.

The EU Health Strategy "Together for Health" fits in the overall Europe 2020 strategy, as healthy populations are considered a prerequisite for sustainable economic growth and prosperity in general. According to the Commission, efficient spending on health can promote economic growth, for instance,

through health promotion programmes and programmes to reduce inequalities and social exclusion. "Health in all policies" is a key principle of the EU Health Strategy.

"Health in all policies" has also been a long-standing priority of the World Health Organization. A "Whole-Government System" approach should tackle health inequities. Action to influence social determinants of health should come not just from within but also from outside the health sector, including other ministries, civil society, local communities and the private sector. Ministries of Health are encouraged to support other ministries in creating policies that promote health equity. This role, which is part of the healthcare stewardship function, was articulated in the 2008 Tallinn Charter on strengthening health systems.

2.8.1 Regulation and governance of third-party payers

In a regulated market environment, health insurers are responsible for purchasing and remunerating all curative health services covered by basic health insurance. Insurers are either public limited companies (*naamloze vennootschappen*) or mutuals (*onderlinge waarborgmaatschappijen*). The public limited companies are private for-profit organizations with the shareholder meeting being the highest decision-making structure, with daily management delegated to a board of administrators. Mutuals are not-for-profit cooperatives, in which the insured persons are members and a board of members controls the management.

The Dutch Health Care Authority (NZa) supervises the compliance of actors with the Health Insurance Act (Zvw) and the Health Care Market Regulation Act (Wmg). NZa interferes with restrictions or obligations when actors, either health insurers or healthcare providers, hinder fair competition in the healthcare markets. Furthermore, the NZa establishes tariffs on healthcare services as far as these are not subject to free negotiations, and promotes transparency in terms of price and quality.

The National Healthcare Institute (*Zorginstituut Nederland*) advises the Ministry of Health, Welfare and Sport on innovation and the basic health insurance package and provides actors with relevant information. The Institute also safeguards the quality, accessibility and affordability of the system and executes the risk-adjustment scheme and regulation on non-payment of premiums and uninsured people (see Section 3.4). For its quality assurance function the Quality Institute for Care (*Kwaliteitsinstituut voor de zorg*) has been established as part of the National Healthcare Institute. Care providers are

legally obliged to provide information on their performance, prices and waiting times. This comparative information is publicly available at Kiesbeter.nl. More details are given in Section 2.9.

Operating under private law, health insurers are subject to the same regulation as any Dutch commercial enterprise. If insurers wish to provide insurance under the Health Insurance Act (Zvw), they require permission from the Dutch Central Bank (DNB) to provide indemnity insurance. Health insurers must conform to regulations under the Act on the Supervision of Insurance Companies (*Wet Toezicht Verzekeringsbedrijf*) and the regulations of the Consumers and Markets Authority (*Authoriteit Consument en Markt*, ACM).

According to the Social Support Act (*Wet Maatschappelijke Ondersteuning*, Wmo), which was extended in 2015, municipalities must support people, with professional care or otherwise, to live in their home situation for as long as possible. Support may include: counselling and day care; respite for informal carers; sheltered housing for mentally disabled people; and relief in case of domestic violence. As municipalities are the direct purchasers, no third party payers are involved. Municipalities are free to organize the availability of these services.

2.8.2 Regulation and governance of providers

Organizations providing care under the Health Insurance Act (Zvw) or the Long-term Care Act (Wlz) need to be licensed under the Health Care Institutions Admission Act (*Wet Toelating Zorginstellingen*, WTZi). The Act stipulates requirements on access to acute care and transparency of governance and management, particularly in regards to financial administration.

Regulation of public health services

Regulation related to vaccinations and screenings is primarily a governmental task. The content of the National Childhood Vaccination Programme (*Rijksvaccinatieprogramma*) is decided by the Minister of Health, Welfare and Sport based on advice from the Health Council. Regional Vaccination Administration Bodies (*Entadministraties*) are responsible for medical supervision and implementation of the Programme. Adverse reactions to vaccinations must be notified to the National Institute for Public Health and the Environment (RIVM) and can be reported by the public to the Netherlands Pharmacovigilance Centre Lareb (*Bijwerkingencentrum Lareb*). Influenza vaccinations, administered by GP practices, are freely available for populations at risk (decided by the Minister of Health, Welfare and Sport).

The Screening Act (*Wet op het Bevolkingsonderzoek*, WBO) requires involved institutions to have permission from the Minister of Health, Welfare and Sport. A permit is necessary for screening on cancer, screenings using ionizing radiation techniques (such as CT scans or radiography) and screening for incurable diseases. The Minister is advised by the Health Council.

2.8.3 Regulation on quality of care

Instruments for quality assurance in healthcare are provided by the Quality of Health Facilities Act (*Kwaliteitswet Zorginstellingen*, KZi), the Individual Health Care Professions Act (*Wet Beroepen in de Individuele Gezondheidszorg*, BIG) and the Medical Treatment Agreement Act (*Wet Geneeskundige Behandelovereenkomst*, WGBO). Legislation and regulation have been developed to support patients, as informed consumers, in taking responsibility for their personal health.

The Health Care Inspectorate (IGZ, see Section 2.3.4) plays an important role in maintaining quality of care. The Inspectorate enforces statutory regulations on public health; investigates complaints and irregularities in healthcare; and can take relevant measures. IGZ uses quality indicators to monitor the quality of care; if necessary site visits or investigations can be made. The disciplinary system and complaint procedures are explained in Section 2.9.4.

Health care facilities

The 1996 Quality of Health Facilities Act (KZi) generally requires institutions to provide "responsible care"; how this is achieved is organized by individual institutions, using legal obligations and the official advice and policies of sector bodies, as well as protocols and guidelines. The Act replaced numerous detailed quality norms.

Individual professionals

The quality of care provided by individual healthcare workers is regulated through the Individual Health Care Professions Act (BIG), which is carried out by the ministerial organization CBIG and enforced by the Health Care Inspectorate (IGZ). BIG registration is obligatory for individual healthcare providers and, since 2012, five-yearly re-registration is obligatory. In 2015 more than 354 000 professionals were included in the register, more than half of them nurses. The BIG Act aims to safeguard the quality of the practice of professions and to protect patients from incompetent practitioners. BIG stipulates that professionals should provide "responsible care", and identifies "reserved operations" which can only be performed by a recognized professional. Based on the BIG Act, healthcare providers can be subject to measures from

disciplinary committees or the Health Care Inspectorate, such as fines, reprimands, suspension and, ultimately, removal from the register. The CIBG also recognizes foreign diplomas of healthcare providers who wish to work in the Netherlands.

Professional self-regulation

Professional self-regulation is an important instrument in policies on quality assurance, for instance on the development of professional guidelines (Boot & Knapen, 2005). At present most professional groups have developed guidelines, such as the many guidelines for GPs that have been developed by the Dutch College of GPs (NHG) since the early 1990s. The adherence to guidelines among GPs reached 74% in 2010. For further improvement and to reduce variation in use, new tailor-made implementation strategies are needed (Grol et al., 2010). Clinical guidelines can also be used by the Health Care Inspectorate (IGZ) as a frame of reference in disputes.

The relatively new (since 2011) Regional Support Structures (*Regionale Ondersteuningsstructuren*, ROS) have been established to support primary care professionals in developing mono- and multidisciplinary teamwork, implementing quality-of-care policies and improving the continuity of care. Instigated by the Ministry, ROS are financed by health insurers via payments per inhabitant in their catchment area.

The Medical Treatment Agreement Act (*Wet Geneeskundige Behandelovereenkomst*, WGBO) stipulates the rights and duties of providers and patients. Health care providers must inform patients about the current and expected health situation, and the aims of any treatment; suggest alternative options; and explain expected consequences for patient health. Patients have the right to a second opinion and to look into – but not to change – their medical files.

Health insurers and care providers and their organizations have agreed on norms about maximum acceptable waiting times in the care sector, the so-called "Treek/norms". For instance, according to these norms an inpatient treatment should be available within seven weeks (www.zorgcijfers.nl).

2.8.4 Registration and planning of human resources

After registration and receiving a licence, which is obligatory under the Individual Health Care Professions Act (BIG), healthcare professionals are allowed to practise, to use their specific title and to apply the "reserved operations" designated to their profession. Furthermore, the Act stipulates that bringing harm to someone's health is illegal and can result in measures

issued by a disciplinary committeee (*tuchtrecht*) (see Section 2.9.4). The Health Care Inspectorate (IGZ) can initiate disciplinary procedures in case of serious misconduct or incapacity. Possible measures include: warning; reprimand; fine; temporary suspension and removal from the BIG register (www.igz.nl/).

Licensing of physicians is mainly self-regulated by the umbrella organization of physicians, the Royal Dutch Medical Association (KNMG). The Association also has a role in determining the content of training for medical specialists, the accreditation of training institutes and trainers, and the requirements for re-registration of medical specialists. It publishes the medical journal *Medisch Contact* for its 67 500 members (both physicians and medical students).

2.9 Patient empowerment

Since the 1980s the position of patients in Dutch healthcare has become stronger and more central. During the 1980s and 1990s the focus was on patient rights, while in the new century patients were increasingly considered as consumers. The 2006 healthcare reform made patients a major health market party, enabling patients to make independent and rational choices (Grit, van de Bovenkamp & Bal, 2008). As a consequence, patient participation and patient choice have become important policy priorities (Trappenburg, 2005). This section will examine the various forms of patient empowerment in the Netherlands in more detail, including patient choice, patient information, patient rights, patient participation, complaints procedures and patient safety. Cross-border care for patients in the Netherlands will also be discussed.

2.9.1 Patient information

The government has a web site (www.kiesbeter.nl) to help consumers choose healthcare providers. It used to contain information to assist consumers in selecting health insurance packages, but the government has argued there are sufficient non-governmental web sites available to fulfil this role. The site offers information on the availability of services, waiting lists and aspects of quality of services, including information collected by the Health Care Inspectorate and quality information collected through specific measurements. General information about public health and healthcare can be found at another website – since 2014, VolksgezondheidEnZorg.info. In addition to these governmental initiatives, a variety of independent and commercial web sites offer information on quality, waiting lists, prices, insurance plans and patient satisfaction.

Table 2.2
Main actors with a role in the regulatory process

Category	Actor	Tasks
Government	Central government	• Setting public health targets • Setting the national healthcare budget • Deciding the content of the basic health insurance package • Setting tariffs for services that are not subject to free negotiations • Deciding capacity in long-term care institutions • Facilitating actors in the healthcare market (for example with information) • General supervision of the healthcare markets
	Municipality	• Supervising the health of local populations • Setting local public health targets • Setting the budget for social support and domestic care (under Wmo) • Purchasing Wmo care (including counselling, day care, respite care, domestic care and youth mental care)
Advisory	Health Council	• Advising the Minister on preventive care and other health issues (scientific)
	Council for Public Health and Society (RVS)	• Advising the Minister on the health policy agenda (societal)
	National Healthcare Institute (ZiNL)	• Advising the Minister on the content of the basic benefit package • Advising on the content of the medicine reimbursement system (GVS) • Advising the Minister on the budget for long-term care (Wlz) (also supervision; see below)
	Capacity Body (*Capaciteitsorgaan*)	• Advising the Minister on workforce planning for all specialized postgraduate training programmes
	Medicines Evaluation Board (CBG)	• Evaluates the safety, efficacy and quality of pharmaceuticals
	Health Care Inspectorate (IGZ)	• Advising the Minister (also supervision; see below)
	Dutch Health Care Authority (NZa)	• Advising the Minister on the definition of negotiable care products and prices of non-negotiable care (also supervision; see below)
Supervision	Dutch Health Care Authority (NZa)	• Overseeing and monitoring healthcare markets • Promoting transparency among actors
	Health Care Inspectorate (IGZ)	• Inspecting safety and quality of individual and institutional providers • Investigating complaints and accidents • Supervising quality of care provided under the Health Insurance Act (Zvw) and Long-term Care Act (Wlz)
	National Healthcare Institute (ZinNL)	• Supervising the quality, access and affordability of healthcare • Regulating defaulters and uninsured people • Administering the Health Insurance Fund, including risk adjustment • Assessing pharmaceuticals before inclusion in the benefit package
Self-regulation (professional and other)	Royal Dutch Medical Association (KNMG)	• Postgraduate medical education • Accreditation of medical specialists (including GPs) • Promoting professional quality
	Dutch College of GPs (NHG)	• Developing clinical guidelines for GPs
	Federation of Medical Specialists (FMS)	• Development of guidelines for medical specialists
	Nurses and Carers Netherlands (V&VN)	• Keeping a voluntary quality register where nurses and care professionals can file their continuing education and monitor their performance • Professional committee for objection and appeal
	Regional Support Structures (ROS)	• Funded by the Ministry, via capitation payments by health insurers • Advising and supporting primary care organizations and professionals towards more integrated care arrangements

Source: Authors' compilation.

The availability of information on the internet has reduced information barriers for patients and users of healthcare services and promoted shared decision-making and self-management. Patients generally appreciate the choice among care options. Nevertheless, most people visit care providers without making informed choices. As most people are satisfied with their GP or other care provider that they know, they see little reason to change. Apart from that, the possibilities to make choices during the care process are usually limited. For instance, the choice of a hospital must already be made at the point of referral, even if a clear diagnosis has not yet been made. As a consequence, the propagated principle of the patient as an actively choosing consumer does not fully work in practice. The Care Map Netherlands web site (zorgkaartnederland.nl), managed by the Patient Federation NPCF, provides comparable judgements of healthcare professionals and organizations by users of their services.

Legislation relating to patient information

Health care providers have obligations concerning information for patients at the individual level. In accordance with the Medical Treatment Agreement Act (*Wet Geneeskundige Behandelovereenkomst*, WGBO), physicians are obliged to inform their patients about planned examinations and treatments, as well as developments regarding examinations and treatments. Patients must be informed about the state of their health and expected health developments; the impact and risks of treatment; and possible alternative approaches.

New legislation is being developed on complaints, disputes and quality (the new Act on Quality, Complaints and Disputes in Care: *Wet kwaliteit, klachten en geschillen zorg*, Wkkgz). The Act, accepted in the Senate in October 2015, deals with the obligation of healthcare providers to provide care of good quality and to have available a written procedure for an easily accessible complaints procedure, including an official person for dealing with complaints. The Inspectorate (IGZ) will be in charge of supervising the execution of the new law (see also Section 2.9.3).

The Medical Research Involving Human Subjects Act (*Wet medisch-wetenschappelijk onderzoek*, Wmo) rules that patients involved in medical research must be informed about the purpose, nature and duration of the research and any risk to their health.

The 1998 Organ Donation Act (*Wet Orgaandonatie*, WOD) stipulates that people who want to be live organ donors should be informed appropriately on the nature and purpose of any donation, and on the expected consequences and health risks (Legemaate, 2006). In contrast to some other European

countries, in the Netherlands post-mortal organ donation is regulated through an explicit consent system. In other words, Dutch citizens must authorize post-mortal organ removal by a codicil or by registration in a national registry. In the absence of registration, relatives can give vicarious consent (Coppen et al., 2008; Gevers, Janssen & Friele, 2004). Since donation rates did not increase after the 1998 Act, changing the consent system was debated. Since international comparative research in 10 western European countries showed that non-consent systems do not guarantee higher donation rates, the current system remained in place (Coppen et al., 2005, 2008; Janssen & Gevers, 2005). The discussion, however, continues.

2.9.2 Patient choice

Since the introduction of regulated competition in healthcare in 2006, choices made by patients have become more important. Patients select a health insurance policy with the health insurer of their choice; insurers cannot refuse or differentiate among patients. Each year patients have the option to switch to another insurer.

Furthermore, patients can choose between restitution and benefit in-kind policies. In-kind policies may include a restricted choice of care providers but financial risk will be absent. With a restitution policy the choice of provider is free, and compensation of services is complete up to a maximum set by the health insurer. On top of the compulsory deductible (€385 in 2016) patients can opt for a voluntary deductible varying from €100 to €500 per year.

In addition to the uniform basic health insurance, patients can choose to purchase, from any health insurer, a complementary VHI policy. However, health insurers are not obliged to accept applications for complementary VHI policies.

In 2006, at the start of the new health insurance system, 18% of insured persons changed insurer (Dutch Health Care Authority, 2006). After a drop in subsequent years, to 4.4% in 2007 and 3.6% in 2008 (Dutch Health Care Authority, 2007, 2008), the number of people switching insurers increased to 7.0% in 2014 and 7.3% in 2015. Young people switch more often than older ones (Dutch Healthcare Authority 2015d).

Citizens are free to register with a GP of their choice. In practice, there may be limitations. For instance, GPs may only register patients living in a certain area, usually within easy reach of the practice. Sometimes, due to relative shortages of GPs at a local level, people can experience problems

registering with a GP. Freedom of choice does also exist for other healthcare providers, although restrictions may apply for people who opt for an in-kind healthcare policy.

For long-term home care, patients can choose to receive care in-kind or to have a personal budget with which they can buy and organize their own care, either on a professional basis or from relatives and other informal carers (Groenewoud, Kreuger & Huijsman, 2006). Since 1998 the number of personal budget recipients has increased; in the years between 2005 and 2008 the average annual growth in this sector reached 28%. To some extent, this growth can be explained by the overall growth of long-term care. However, the increase in the use of personal budgets was more than proportional. This was the result of new applicants, who used to be eligible for long-term care but had decided not to apply for it. In the Netherlands personal budgets are more generous than in surrounding countries.

Changes in the organization of personal budgets in 2015 had important consequences for their approximately 200 000 users and their care providers. The decentralization of social support made the municipalities the issuing bodies of many budgets, which brought changes in the method of assessing eligibility. For care transferred to the Health Insurance Law (Zvw), personal budgets were a new phenomenon for the health insurers. Furthermore, as a measure against fraud, care providers were no longer paid by their patients, but by the Social Insurance Bank (*Sociale Verzekeringsbank*, SVB), which acted as the budget manager for the patients. The transition resulted in discontinuity of care and late payments and caused financial problems for care providers.

2.9.3 Patient rights

Right to information

Patients have the right to be clearly informed about treatments, related risks and alternatives. Except in emergency situations, patients also have the right of informed consent for a treatment. These rights were established in the Medical Treatment Agreement Act (WGBO).

Medical care providers are obliged to keep complete medical files for their patients. The Personal Data Protection Act (*Wet Bescherming persoonsgegevens*,Wbp) requires medical information to be kept confidential. The College for the Protection of Personal Data (*College Bescherming Persoonsgegevens*, CBP) is charged with overseeing fulfilment of the law.

In 2013 the European Directive on patient rights in cross-border care was incorporated in Dutch law. This includes recognition of drug prescriptions and the right to be informed on eligibility for healthcare in EU countries.

Quality, complaints and disputes

The government aims to further promote the position of patients by the Act on Quality, Complaints and Disputes in Care (*Wet kwaliteit, klachten en geschillen zorg*, Wkkgz), which has been accepted by the Parliament but is currently not yet enforced. The main points of the Act are: the right to be informed about the qualifications of providers; medical errors must be reported to patients; antecedents of care providers must be verified; care providers can report irregularities in a safe environment; dismissal for serious disfunctioning to be reported to the Inspectorate; complaint officials to deal with complaints in a transparent way; and, if necessary, an independent dispute committee can pass binding judgements and assign indemnifications (https://www.rijksoverheid.nl/onderwerpen/patientenrecht-en-clientenrecht/). Other rights have been laid down in the Medical Research Involving Human Subjects Act (WMO) and the Organ Donation Act (WOD) (see also Section 2.9.1).

Rights concerning quality of care are regulated by framework laws, without detailed requirements. Health care institutions must provide "responsible care", based on a quality system in line with the Quality of Health Facilities Act (*Kwaliteitswet Zorginstellingen*, KZi) (Ministry of Health, Welfare and Sport, 1997). This Act defines responsible care as "care of a good quality, which is effective, efficient and patient oriented and which is responsive to the actual needs of the patient".

The concept of responsible care can also be derived from the Individual Health Care Professions Act (*Wet Beroepen Individuele Gezondheidszorg*, BIG), the Medical Treatment Agreement Act (WGBO) and the Health Insurance Act (Zvw).

Physical access

A specific regulation on physical access to health facilities can be found in the Building Decree (*Bouwbesluit*). The Decree has adapted a regulation for health facilities specifically aimed at accessibility for wheelchair users. In addition to the Building Decree, there are also Dutch Standards (*NEderlandse Normen*, NEN), which contain agreements between stakeholders. There are specific NEN-standards concerning accessibility to the environment of buildings, and the buildings and houses themselves.

2.9.4 Complaints procedures (mediation, claims)

There are different options and pathways for patients to file complaints with regard to healthcare providers in the Dutch healthcare system. Options described in Table 2.1 are directly accessible (Legemaate, 2006).

Complaints directed to healthcare providers
In addition to personally communicating a complaint to a healthcare provider, patients can address a complaints officer or the Health Care Information and Complaints Service (*Informatie- en Klachtbureaus Gezondheidszorg*, IKG) (Hout, 2006). Complaints officers may be hired by healthcare providers to act as mediators. IKGs operate independently from the healthcare providers and are set up to inform patients and support them in case of complaints. Psychiatric hospitals must give patients the opportunity to consult a patients' confidant according to the Psychiatric Hospitals Compulsory Admissions Act (BOPZ). The role of patients' confidants has not been regulated in other healthcare sectors (Legemaate, 2006).

Complaints committee
Complaints about an institution or individual person in healthcare can be addressed to a complaints committee (Hout, 2006). According to the Act governing the right of clients in care to complain (*Wet klachtrecht clienten zorgsector*, WKCZ), all healthcare providers must install complaints committees, consisting of at least three members. Complaints considered to be valid can result in recommendations by the committee for the healthcare provider, but committees cannot enforce measures or sanctions. After a complaint has been dealt with, appeal is not possible. Patients more often follow an informal procedure than submitting their complaint to a complaints committee (Legemaate, 2006). Research from 2004 and 2008 found that most patients were satisfied with the intervention of hospital complaints committees (Friele, Sluijs & Legemaate, 2008; Kruikemeier et al., 2009).

A complaint lodged with the board of a psychiatric hospital, according to Article 41 of the Psychiatric Hospitals Compulsory Admissions Act (BOPZ), must result in the installation of a committee to deal with the complaint. This regulation differs from the rulings in the Act governing the rights of clients in care to complain (WKCZ) in three ways. First, the grounds on which a complaint can be made are limited; second, the committee can suspend the procedure against which the complaint is directed; and, finally, the patient can appeal if the committee decides that the complaint is unfounded (Legemaate, 2006).

Disciplinary board

For complaints in a number of professions a disciplinary system is in place. These professions are: physicians, dentists, pharmacists, healthcare psychologists, psychotherapists, physiotherapists, midwives and nurses. According to the Individual Health Care Professions Act (BIG), any directly involved person can submit a complaint to one of five regional disciplinary boards, consisting of legally qualified members and health professionals (Hout, 2006). Complaints to these professionals, by individuals or institutions, can also be submitted via the Health Care Inspectorate (IGZ). A disciplinary board can take the following measures, in order of severity: (1) a warning, (2) a reprimand, (3) a fine up to a maximum amount of €4500, (4) a temporary suspension from the register for a maximum of one year, (5) partial denial of licence to practise the profession and (6) removal from the register. If the complaint is not considered valid, patients can appeal to the Central Disciplinary Board. The number of complaints to disciplinary boards made by patients and their families was about 1300 every year between 2003 and 2007 (Tuchtcolleges voor de Gezondheidszorg, 2007). This represents one complaint per 300 healthcare providers per year (Hout, Friele & Legemaate, 2009). In 2008, 75% of complaining patients were satisfied with the regional disciplinary boards (Kruikemeier et al., 2009).

Dispute committee

As complaints committees and disciplinary boards cannot grant financial compensation to patients, for instance in case of injury after medical error, damage assessment can be carried out by a dispute committee (*Geschillencommissie Zorginstellingen*). The complaint first has to be reported to the healthcare provider. When a complaint is reported, the provider has to agree to the amount of compensation, which cannot be higher than €5000. Damage assessment is only possible if the relevant provider has joined a dispute committee (Health Care Inspectorate, 2008). The number of new verdicts and settlements by the dispute committee care agencies was 23 in 2014, 30 in 2012 and 29 in 2012. The proportion of complaints found to be (partly) valid varies: 27% in 2014 and 55% in 2013 (www.degeschillencommissie.nl/). No appeal is possible following the judgement of the dispute committee.

Other options

In addition to specific healthcare regulations, general regulations are applicable in healthcare. These are regulations from the Penal Code, Civil Law, Labour Law and Criminal Law. For patients, Civil Law is important. Rulings from the Civil Code and the Code of Civil Procedure enable financial compensation. Each year only a limited number of complaints go to the civil court (Legemaate, 2006). Furthermore, some professional groups have their own codes of conduct

(Hout, 2006). Patients can deliver a complaint to these organizations. The findings of professional disciplinary committees have no consequences for the registration of physicians.

Complaints about health insurers

If patients disagree with health insurers' decisions, for example on reimbursement, they can file a complaint with (1) the health insurer, (2) the Foundation for Complaints and Disputes In Health Care Insurances (*Stichting Klachten en Geschillen Zorgverzekeringen*, SKGZ) or (3) make an appeal to court. A complaint directed to the Foundation may lead to mediation between the insurer and the consumer, or to binding advice from the Dispute Committee. In 2014, 2365 complaints were submitted to SKGZ (+2% compared to 2013) and 518 disputes (+10%) (www.skgz.nl/).

2.9.5 Public participation

The democratization and emancipation of patients throughout the 1970s and 1980s have resulted in a greater involvement in healthcare. Patients organized themselves and gained influence on issues like insurance policies, medical guidelines and medical scientific research (Trappenburg, 2008). Since the late 1990s the emphasis in patient involvement has been more at the individual level. Next to their formal representation in councils and other bodies, patients are now also expected to make informed choices regarding the selection of health insurers and providers. Awareness is growing that these assumptions do not apply to all patients, and that the interests of these groups must be taken into consideration.

In Dutch healthcare the interests of patients are represented by many general and categorical organizations, many of which are represented in the Patient Federation NPCF.

Involvement with healthcare providers

Patients can influence the policy and management of healthcare institutions. Since 1996 collectively financed organizations in the fields of social care and healthcare have been obliged to have a representative client council, as laid down in the Client Representation Act (*Wet Medezeggenschap Cliënten Zorginstellingen*, WMCZ). The Act gives clients the opportunity to make recommendations with regard to topics, such as the budget, annual accounts and important changes in the organization. Client councils do not seem to be an effective instrument to promote client participation. Hospitals may experience

difficulties in installing a representative council. Compared with other forms of patient participation, the costs of these councils turned out to be relatively high (van der Voet, 2005).

Involvement with health insurers

Health insurers are obliged to involve patients in purchasing decisions. According to the Health Insurance Act (Zvw), patients should have tools or instruments to influence the policy of insurers. This can be realized, for example, by means of satisfaction surveys among insured persons or by setting up a members' council. The councils, consisting of elected insured persons, may advise on the annual accounts or advise the board of directors. The Health Care Authority (NZa) supervises the obligation for health insurers to involve patients. A Bill on the Influence of the Insured was proposed to Parliament in 2015.

2.9.6 Patients and cross-border healthcare

The Dutch regulations on cross-border care comply with European regulations and jurisprudence. The regulations and case law on cross-border care, including the new cross-border directive (Directive 2011/24/EU), have been incorporated in the 2006 Health Insurance Act. People with basic health insurance have the right to reimbursement of healthcare services abroad according to the conditions and reimbursements levels of the act (Hamilton, 2008). Furthermore, people who live elsewhere but work in the Netherlands can be subject to the Act and are therefore obliged to purchase health insurance in the Netherlands. The Act also regulates the payment of premiums of people who are not working in the Netherlands, but who have a right to obtain care under basic health insurance (Hamilton, 2008). The Netherlands was one of the first countries in the EU to implement these regulations and case law. For insured Dutch persons, arrangements have been agreed with the other EU/European Economic Area (EEA) countries and a number of other countries (Health Care Insurance Board, 2009).

In 2006 there were many cross-border arrangements between the Netherlands and Belgium, and to a lesser extent between the Netherlands and Germany. These cross-border arrangements are mostly based on bilateral agreements between providers and health insurers/sickness funds across borders; they therefore function in parallel to the opportunities enabled by European regulations and case law. Little information is available on the number of patients making use of cross-border arrangements (Busse et al., 2006). Dutch

health insurers have agreements with healthcare providers abroad, for example regarding inpatient and outpatient care and on knee and hip surgeries and rehabilitation (VGZ, 2009).

People living in border areas, as well as younger people, are more willing to travel abroad than other people. Patients with higher incomes are also more prepared to travel abroad for medical specialist care than those with lower incomes (Loermans & de Jong, 2008). In 2007 three-quarters of the Dutch people said they would be willing to travel to another EU country to receive medical treatment, while 4% reported having received medical treatment in another EU Member State in the previous 12 months (Gallup Organization, 2007).

Between 2008 and 2012 expenditures for cross-border care grew by 30%, which is higher than the increase of overall healthcare expenditures (21%). However, the volume of cross-border care continues to be modest: 1% of total health expenditures in 2013 (IBO Grensoverschrijdende zorg, 2014). Most cross-border care is provided in neighbouring countries and in holiday countries for Health Insurance Act (Zvw)-insured persons. Cross-border care can have advantages for health insurers; for instance, they may be able to make better agreements among more diverse providers, as well as patients, because cross-border care broadens their choices. However, there are disadvantages as well. Health insurers have less insight in the quality and need for care provided abroad. Also, possibilities for cost control are lower: if insured persons use the European Health Insurance Card (EHIC), insurers are obliged to pay the bill for care that was judged to be necessary by a foreign provider. Among other things, the interdepartmental working group on cross-border care advised that information on cross-border care should be improved; that health insurers should better use their instruments to control expenditures on cross-border care; cross-border collaboration between providers should be promoted; and healthcare for Dutch people abroad should be promoted (IBO Grensoverschrijdende zorg, 2014).

3. Financing

According to the WHO, the Dutch health system is among the most expensive in Europe, but it is also in the top five best valued systems in Europe and 91% of insured evaluate the healthcare system as good (TNS Opinion and Social, 2014). There are two main financing schemes: one for curative care (mainly directed towards curing the patient) and one for long-term care. The financing of the Dutch curative healthcare system is based on Social Health Insurance (SHI) and managed competition. Dutch citizens are obliged to purchase health insurance for a standard basic benefits package, and health insurers have to accept anyone who applies for an insurance policy. The health insurance for adults is paid for 50% by a community-rated premium and the other 50% via an income-dependent premium. Health care for children under the age of 18 is paid with a government contribution from taxes. The basic benefits package roughly includes GP-care, maternity care, hospital care, home nursing care, pharmaceutical care and mental healthcare. The first €385 (in 2016) of healthcare expenditure from this package is paid out-of-pocket, except for GP consultations, maternity care, home nursing care and care for children under the age of 18. Care that is not covered under the basic package can be insured via Voluntary Health Insurance (VHI), such as glasses and dental care.

For care that is regulated by the Health Insurance Act (mainly curative care), managed competition applies. Health insurers and providers negotiate on price and quality of care, although competition on quality is still in its infancy. The Dutch Health Care Authority oversees whether the competition is fair and establishes the care products for which prices can be negotiated. For care for which negotiation is not feasible, such as emergency care (not plannable) or organ transplantation (too few providers), the Dutch Health Care Authority establishes maximum prices. Health care providers are independent

non-profit entrepreneurs. Hospitals are paid through an adapted type of DRG system: the Diagnosis Treatment Combinations. GPs are paid by a combination of fee-for-service, capitation and pay-for-performance.

Long-term care for persons needing 24 hour supervision is regulated by the Long-term Care Act and is financed from income-dependent contributions. Home nursing is part of the Health Insurance Act and all other forms of long-term care have been the responsibility of municipalities since January 2015. This large reform has come with a great deal of social unrest, because the reform also includes substantial savings targets and the organization of the care changed drastically (van Ginneken & Kroneman, 2015) (see also Chapter 6). Municipalities receive extra funding for these tasks (from general taxation), but these funds are not earmarked. This gives the municipalities the freedom to organize care to their own discretion. The idea behind the reform is that municipalities are closer to the citizens and better positioned to organize tailor-made care solutions for their population. Furthermore, long-term care seekers should first explore a solution within their personal social network. Only if that is not feasible or insufficient can professional care step in. However, the social network cannot be forced to provide care. As of 2015, it remains unclear how this will be effected in practice and if cost containment targets will be met.

Preventive care targets the whole population and is financed from general taxation and regulated under the Preventive Care Act. This comprises vaccinations, cancer screening programmes and preventive care for children until the age of 13.

3.1 Health expenditure[3]

In 2013 health spending amounted to 12.9% of GDP in the Netherlands (see Fig. 3.1), the highest in the EU (World Health Organization, 2015). Between 1990 and 2003 healthcare expenditure as a share of GDP was consistently on, or slightly below, the EU15 average, but since 2003 healthcare expenditure in the Netherlands rose more quickly. This increase is mainly due to the high and increasing expenditure for the long-term care sector. For hospital care and ambulatory care, the Dutch expenditure is about average (OECD, 2015). Since the beginning of the global financial crisis, average healthcare expenditure as a share of GDP has been falling in the EU. In the Netherlands, however, this share has continued to increase, a development also visible in neighbouring Belgium (see Fig. 3.2). In terms of per capita expenditure (in US$ PPP), healthcare in

[3] This section is based on Batenburg, Kroneman & Sagan, 2015.

the Netherlands was among the most expensive in Europe in 2013 and only surpassed by Luxembourg, Norway, Switzerland and Monaco (see Fig. 3.3). In the same year, health expenditure from public sources in the Netherlands (79.9%) was above the average in the EU15 (77.1%) (see Fig. 3.4).

As a result of the financial crisis, in 2009 the government's revenue from taxes and premiums fell by about 23% (around €18 billion). Since healthcare expenditure kept increasing at a steep rate, and accounts for a large and increasing share of the total public expenditure (20% in 2010 compared to 13% in 2000 (van den Berg et al., 2014a)), the pressure to contain healthcare costs, already apparent before the crisis, became even stronger. The breach of the Stability and Growth Pact criteria in 2010 reinforced the government's view that more effective public spending control was needed. The political aim of the government to reduce debt to below 3% of the national budget led to significant budget reductions. The ensuing cuts applied to the healthcare sector were somewhat less compared to other public sectors such as social welfare, defence or education. The share of healthcare expenditure increased to 25.5% of total public expenditure in 2012 (Ministry of Finance, 2012) and the loss of jobs that affected other sectors during the economic crisis was not felt in healthcare, except for domestic care.

Between 2011 and 2013 the Minister of Health agreed with stakeholders (associations of healthcare providers, health insurers and patients) that yearly public expenditure growth could not exceed 2.5% for mental care between 2013 and 2014, 2.5% for medical specialized care between 2012 and 2015, and 2.5% for primary care between 2014 and 2017 (plus wage and price developments). Nevertheless, government health spending was €77.8 billion in 2014 or 29% of the total public budget, up from 25.5% in 2012 (National Government, 2014), which corresponds with an average growth of 7% per year. Investments in education of healthcare personnel have been protected from the budget cuts until 2014 in order to ensure quality of care. In 2014, however, a budget cut was implemented in the area of education of medical specialists – the length of education was shortened and the number of new specialists was reduced (Broersen & Visser, 2013).

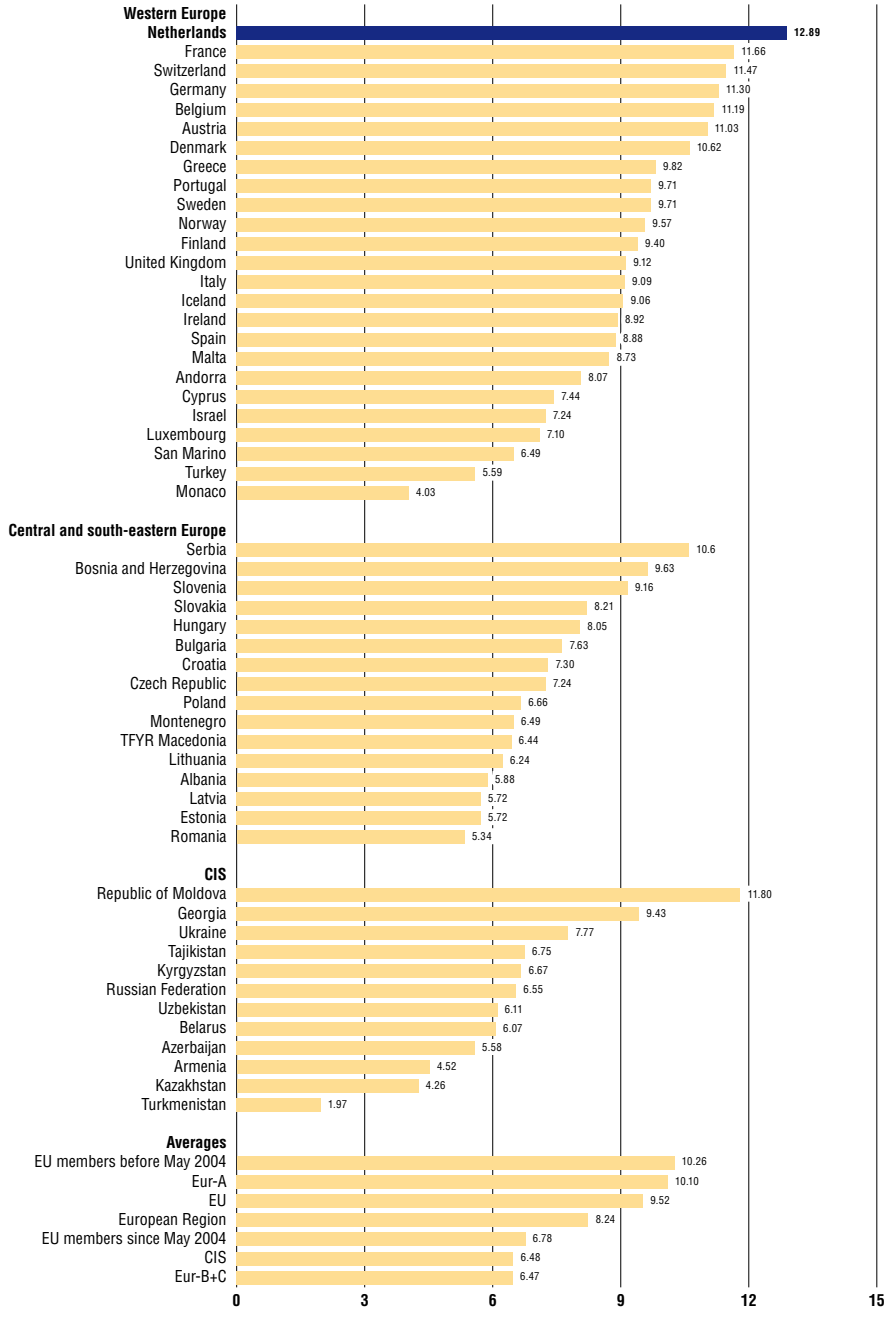
Table 3.1
Trends in health expenditure, 1995–2013

Expenditure	1995	2000	2005	2010	2013
Total health expenditure in US$ PPP per capita	1 797	2 352	3 824	5 063	5 601
Total health expenditure as % of GDP	8.3	8.0	10.9	12.2	12.9
(Mean) annual growth rate in GDP	3.1	4.4	2.3	1.1	-0.7
Public expenditure on health as % of total expenditure on health	71.0	63.1	64.7	79.4	79.8
Private expenditure on health as % of total expenditure on health	29.0	36.9	28.1	12.8	12.9
Government health spending as % of total government spending	10.5	11.4	15.7	18.8	20.7
Government health spending as % of GDP	5.9	5.0	7.0	9.6	10.3
OOP payments as % of total expenditure on health	9.6	9.0	7.5	5.3	5.4
OOP payments as % private expenditure on health	33.3	24.3	26.8	41.3	41.7
VHI as % of total expenditure on health	14.3	15.9	15.8	4.8	5.0

Sources: WHO Regional Office for Europe, 2015; World Bank, 2015.

Fig. 3.1

Health expenditure as share of GDP in WHO European region, 2013, or latest available year

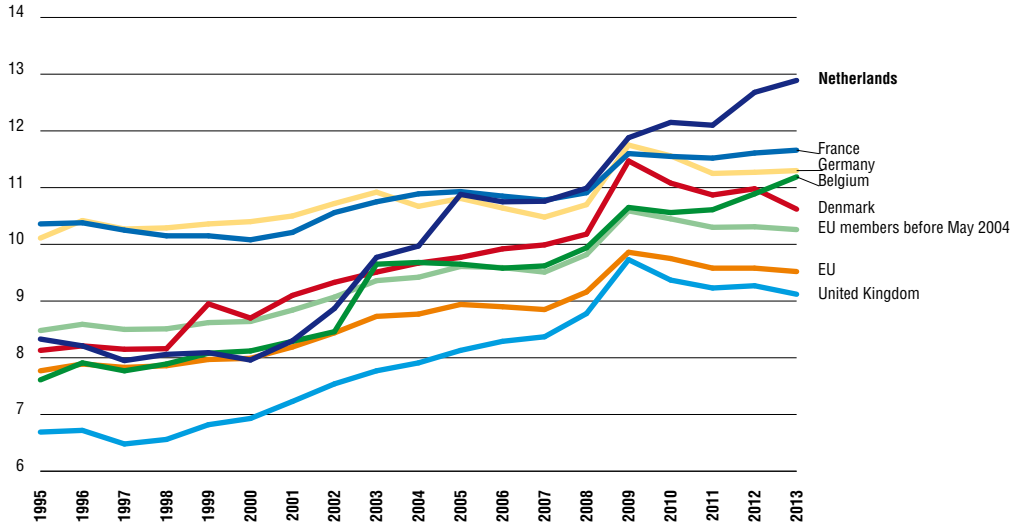


Source: WHO Regional Office for Europe, 2015.

Note: TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 3.2

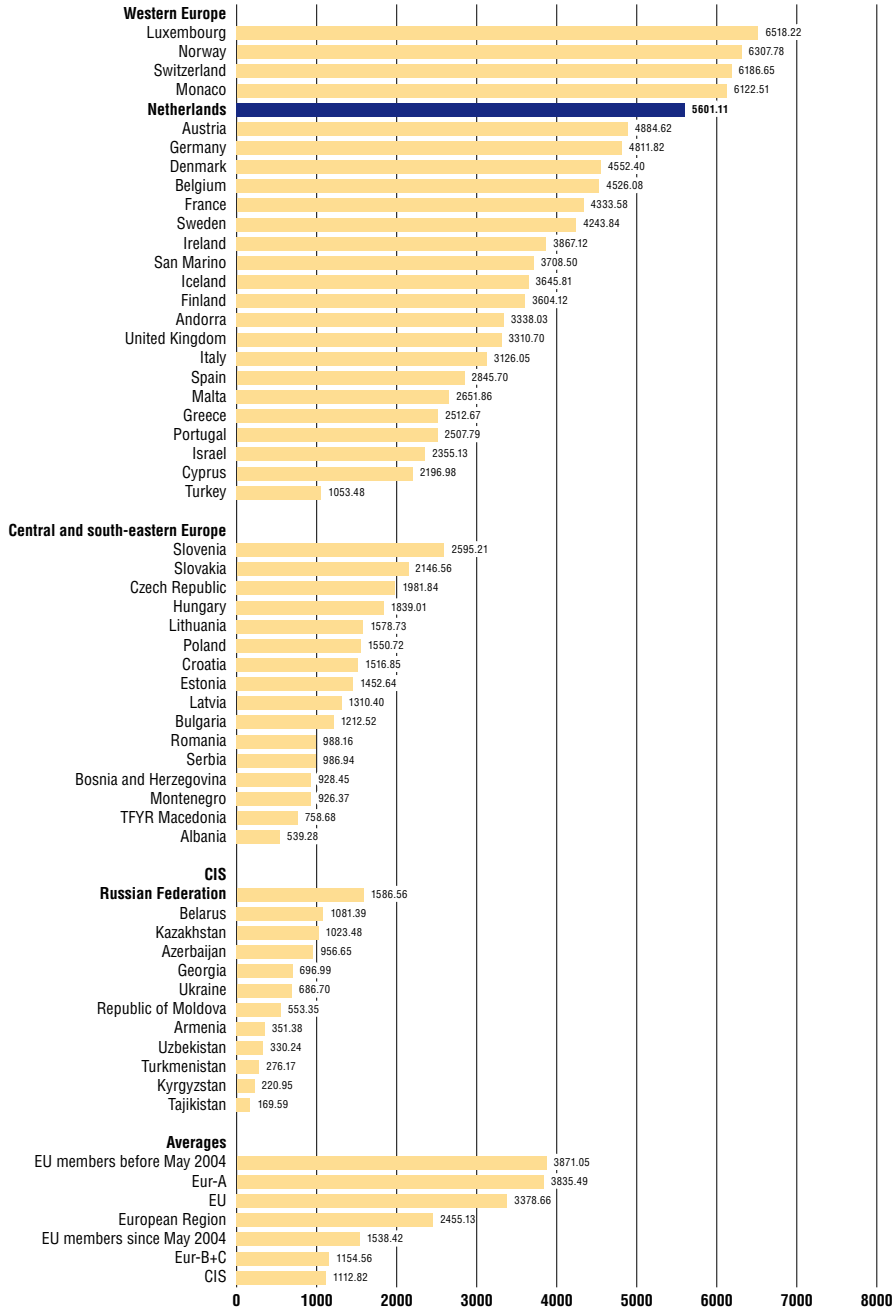
Trends in health expenditure as share of GDP over time (1990 – latest available year), selected countries



Source: WHO Regional Office for Europe, 2015.

Fig. 3.3

Health expenditure in US$ PPP per capita in the WHO European Region, 2013, or latest available year

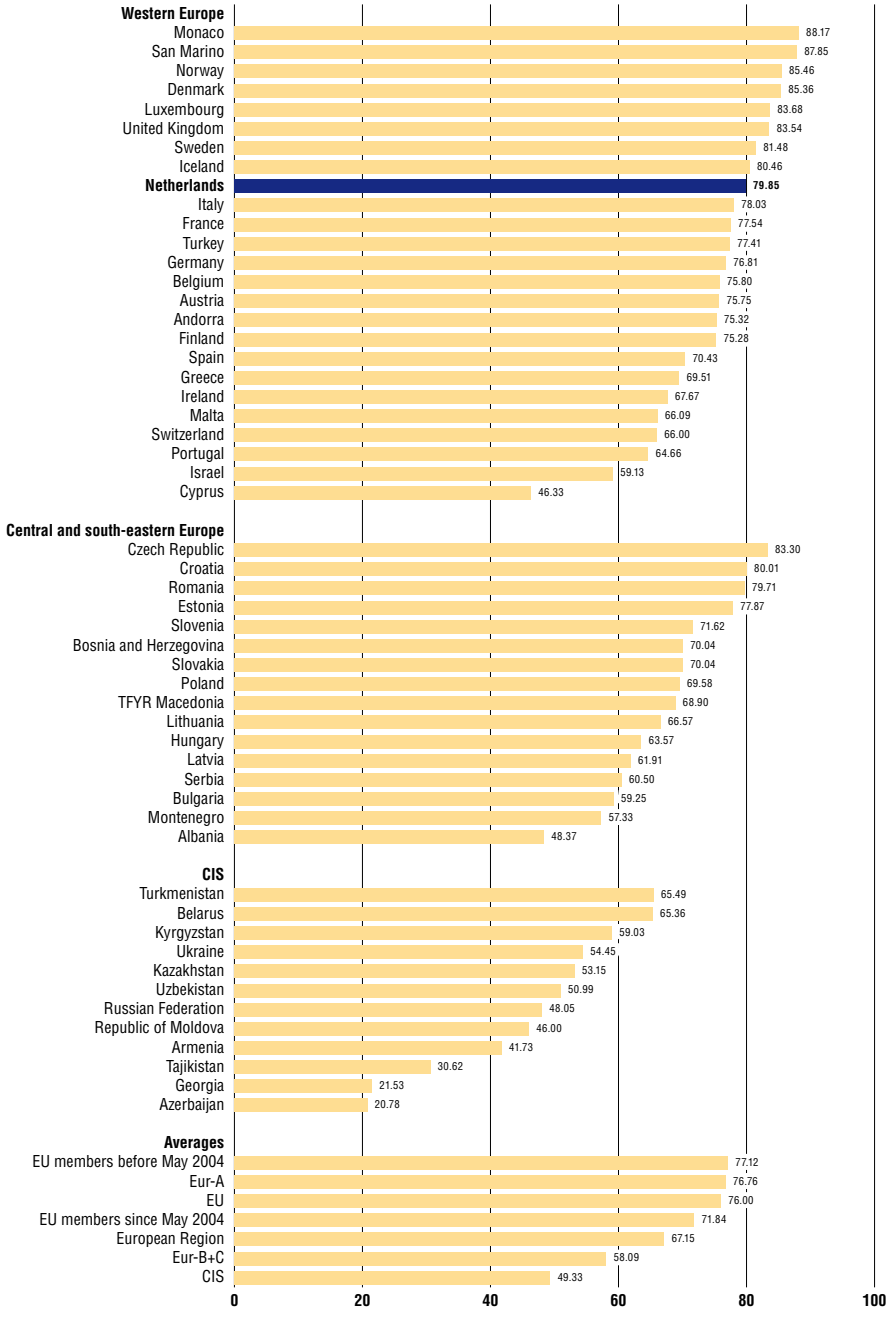


Source: WHO Regional Office for Europe, 2015.

Note: TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 3.4

Public sector health expenditure as a share (%) of total health expenditure in the WHO European Region, 2013, or latest available year



Source: WHO Regional Office for Europe, 2015.

Note: TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Table 3.2
Total health expenditure by service programme, according to System of Health Accounts, 2014

	% of public expenditure on health	% of total expenditure on health
Health administration and insurance	1.1	1.0
Education and training	not available	not available
Health research and development	4.1	3.5
Public health and prevention	2.1	2.5
Medical services:		
– inpatient care	26.3	22.8
– outpatient/ambulatory services	11.4	13.1
– primary care	0.1	3.0
– specialist care	not available	not available
– outpatient/ambulatory dental services	0.4	2.5
– ancillary services	11.0	10.6
– home or domiciliary health services	0.8	0.7
– mental health	1.1	6.9
Expenditure (in million €)	2014	*%*
Health care	81 766	*86*
Social care	9 849	*10*
Management and control organizations	3 344	*4*
Total care expenditure	**94 959**	***100***

Source: Statistics Netherlands, 2015a.

The measures that have been implemented since 2009 can be grouped into four categories:

1) shifting costs from public to private sources;
2) shifting costs between various statutory sources (for example, transfer of long-term care from the centralized Exceptional Medical Expenses Act to the municipalities), mostly in combination with major cuts in the budgets;
3) substituting institutional care with home care and secondary care with primary care; and
4) increasing the focus on improving efficiency and eliminating fraud.

Initially, from 2009, the measures were mainly targeted at reducing overspending, shifting costs from public to private sources by limiting the basic benefit package and increasing the compulsory deductible, and efforts to prevent inappropriate healthcare utilization. From 2011 onwards the measures increasingly focused on structural changes in acute care, with the government seeking consensus with the stakeholders to agree on further cost

containment, and in long-term care, where there has been a shift towards more decentralization of care in combination with major budget cuts (Batenburg, Kroneman & Sagan, 2015). Despite this, since 2009 expenditure has only fallen in the area of pharmaceutical care and aids, primarily due to the use of preferred medicines policy (see Section 3.7.2) and effective tendering by the insurers. Expenditure on all other types of care kept increasing (Batenburg, Kroneman & Sagan, 2015).

3.2 Sources of revenue and financial flows

In 2013 the healthcare sector was mainly financed by compulsory contributions and premiums (72%, of which 43% was for curative healthcare (Health Insurance Act, Zvw) and 29% for long-term care (Exceptional Medical Expenses Act, AWBZ), followed by private expenditure (13%, of which 9% was for out-of-pocket payments,[4] and 5% for complementary Voluntary Health Insurance, VHI) and government (13%) (Statistics Netherlands, 2015a) (see Fig. 3.5).

All Dutch citizens are, since 2006, compulsorily insured for curative healthcare under the Health Insurance Act (Zvw). The Act provides a basic benefit package, including all care that is considered to be essential, efficient and unaffordable by individual citizens. The package includes virtually all GP-care, maternity care, hospital care, some allied healthcare, mental care and home nursing care. People aged 18 and above have to purchase a health insurance plan from a health insurer. They pay a community-rated premium directly to the insurer of their choice, plus an income-related employer contribution that is collected by the tax office and pooled in the Health Insurance Fund. This fund allocates a risk-adjusted compensation to insurers for each person of their insured population. This risk adjustment should make it equally attractive to sell a health plan to a sick person as to a healthy person and take away incentives to risk select. To cover children under the age of 18, the government pays a contribution into the health insurance fund. For all citizens of 18 years or above, a mandatory deductible is in place: the first €385 (2016) of healthcare costs in a certain year has to be paid out of pocket (except for GP-consultations, maternity care and home nursing care). After having spent that amount (plus any voluntary deductibles), insurance takes over. For non-insured care complementary VHI is available, mostly covering physical therapy, dental care and glasses, but may also include complementary or alternative medicine, depending on the policy.

[4] The out-of-pocket expenditures do not include the income-dependent cost-sharing for long-term care (AWBZ-care). This is due to the sources Statistics Netherlands uses to collect data on healthcare expenditure.

The average price of a health plan for the basic benefits package has been rather stable over the past few years. In 2011 the average price was €1199 on a yearly basis and in 2015 it was €1158 (Dutch Healthcare Authority, 2015b).

Health insurers contract healthcare providers for the care they will deliver. Insurers negotiate with providers on prices, quality and volume of care, although for part of the care maximum prices have been established by the Dutch Healthcare Authority.

Long-term care used to be regulated by the Exceptional Medical Expenses Act (AWBZ), a compulsory SHI scheme for everyone who is legally residing or employed in the Netherlands. Since 2015 this Act has been abolished and replaced by a slimmed-down Long-term Care Act (*Wet Langdurige Zorg*, Wlz). Long-term care is now paid in different ways (see Fig. 6.2 for a schematic overview of these changes). The Long-term Care Act covers the care for persons who need 24 hours per day supervision (physically, medically or mentally). This care can be provided in nursing homes, but also in the home of the patient (via the complete care package at home: *Volledig Pakket Thuis*). The care provided in institutions cannot be combined with a personal budget. Care at home can be provided in kind or purchased via a personal budget. Home help and social support is paid by municipalities under the Social Support Act (Wmo, 2015). Youth mental care and disease prevention is also paid by municipalities under the new Youth Act. Municipalities negotiate with providers of home and youth care about price and volume of care. They receive a non-earmarked government contribution from the municipality fund for both types of care. This fund is a tax-based fund that is the main source of financing for municipalities. Home nursing care and personal care have shifted to the Health Insurance Act. One of the aims of the long-term care reform was to contain costs by organizing care closer to the citizens and thus enabling tailor-made solutions that are more efficient. To what extent the aims of cost containment and efficiency will be achieved is not yet clear (2015).

The contribution of the Ministry of Health, Welfare and Sport to the healthcare budget mainly consists of the contribution for children under 18, compensations (for example tax-funded subsidies called healthcare allowances, see below), the development of the hospital financing system, the contribution for the municipality fund for the Social Support Act (about 8% of total healthcare expenditure) and the Youth Act (almost 3% of total healthcare expenditure), health promotion and the costs of recognized training for medical and dental specialists.

To ensure access to basic health insurance under a system with flat community-rated premiums and to compensate for undesired income effects for lower-income groups, a "healthcare allowance" funded from general tax was created under the Health Care Allowance Act (*Wet op de zorgtoeslag*, Wzt) (see also Section 3.3.2).

See Fig. 3.6 for a schematic depiction of all financial flows in the Dutch health system.

Table 3.3

Sources of revenue as a percentage of total expenditure on health according to source of revenue*

Financial sources	2000		2005		2010		2014**	
	million €	%	million €	%	million €	%	million €	%
Government	6 831	*15*	8 503	*13*	13 384	*15*	12 455	*13*
Health Insurance Act/Sickness Fund Act (Zvw/ZFW, before 2006)	12 863	*28*	17 566	*26*	36 090	*41*	40 920	*43*
Exceptional Medical Expenses Act (AWBZ)	14 633	*32*	21 980	*33*	24 321	*28*	27 758	*29*
(Complementary) VHI ***	6 314	*14*	10 285	*15*	3 986	*5*	4 123	*4*
Out-of-pocket payments ****	4 100	*9*	7 153	*11*	8 136	*9*	8 217	*9*
Other sources of financing	1 710	*4*	1 665	*2*	1 715	*2*	1 485	*2*
Total care financing	46 451	*100*	67 152	*100*	87 632	*100*	94 958	*100*

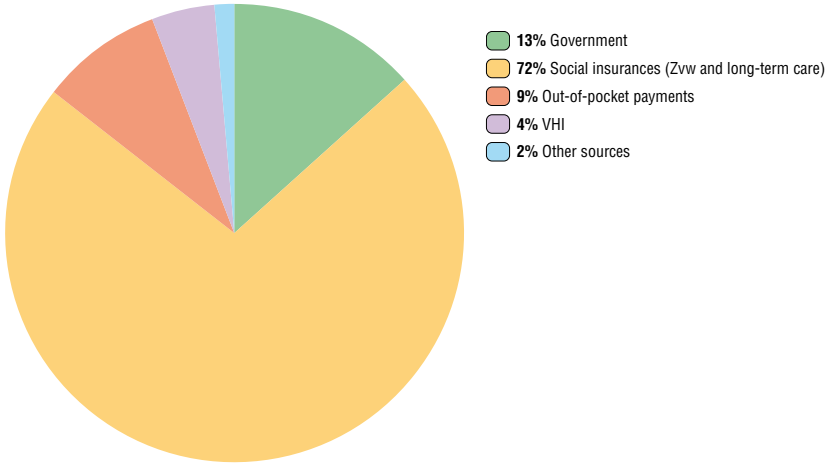
Source: Statistics Netherlands, 2015a.

Notes: * data for the situation after the 2015 long-term care reform are not yet available; ** provisional data; *** VHI before the 2006 reform consisted mainly of private health insurance for people above a certain income ceiling. Since 2006 it consists of complementary VHI only since all citizens are compulsorily insured; **** not included: the mandatory deductible and the income-dependent cost-sharing for long-term care, which are accounted for under the Health Insurance Act and Exceptional Medical Expenses Act respectively.

Before the 2006 reform introduced compulsory insurance for all citizens, persons who had an income above a certain threshold (about one-third of the population) had to purchase private insurance. This explains why the share of the premiums and contributions increased significantly between 2005 and 2010 and the share of VHI dropped (see Table 3.3). Out-of-pocket expenditure in Table 3.3 and Fig. 3.5 does not include the mandatory deductible and income-dependent contributions for long-term care. This will lead to an underestimation of out-of-pocket payments (OOP) in the Netherlands.

Fig. 3.5

Percentage of total expenditure on health according to source of revenue, latest year available*

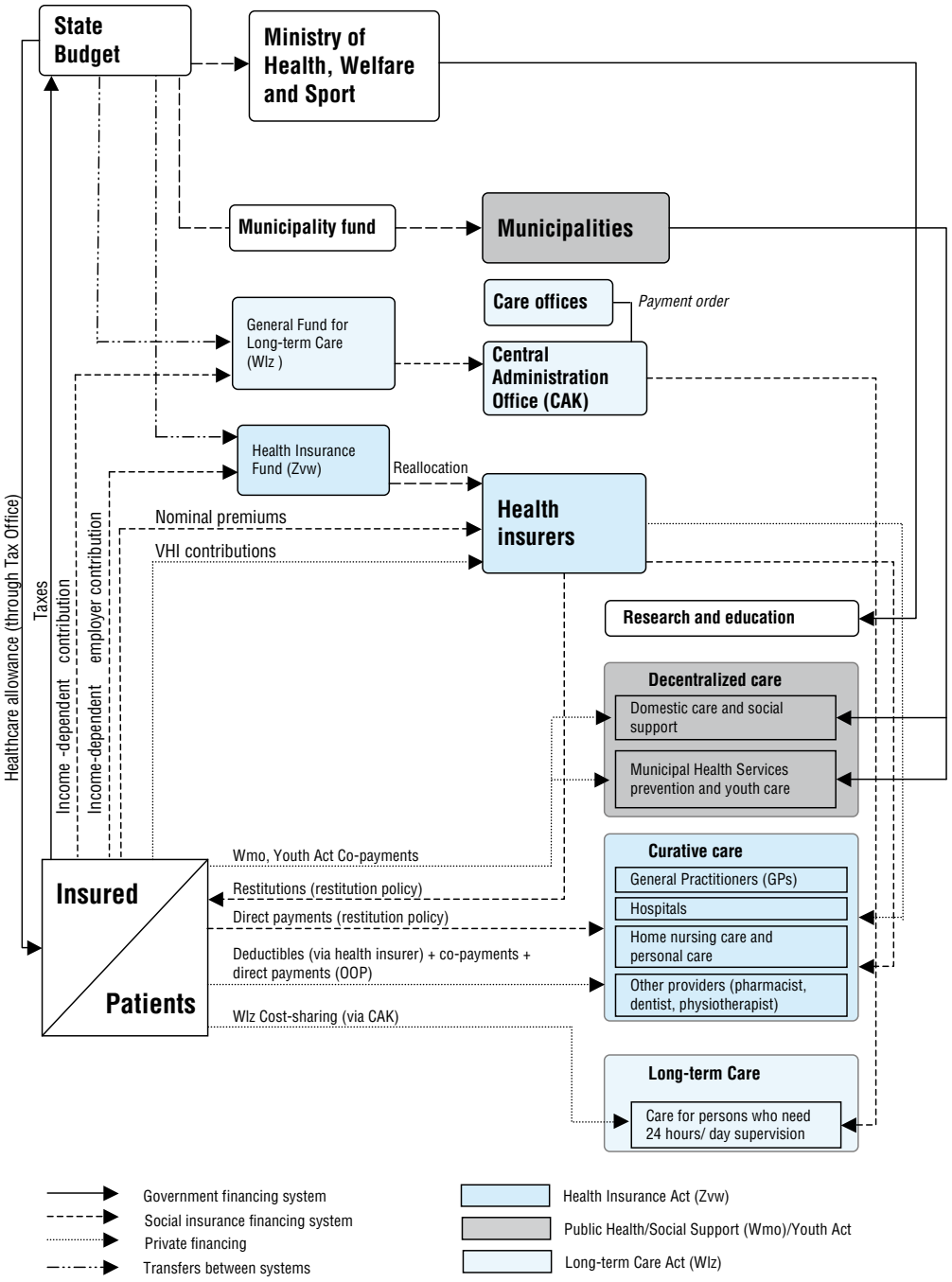


Source: * Provisional data, 2014. Statistics Netherlands, 2015a.

Note: Long-term care in this figure relates to expenditure under the former Exceptional Medical Expenses Act.

Fig. 3.6

Financial flow chart of the healthcare system in the Netherlands



Source: Authors' compilation.

3.3 Overview of the statutory financing system

3.3.1 Coverage

Who is covered

Basic health insurance is obligatory for all Dutch residents. Those working in the Netherlands and paying income tax to the Tax Office (*Belastingdienst*) but living abroad are also compulsorily insured. For two groups of persons an exception is made. There are special regulations for persons who refuse to insure themselves on grounds of religious beliefs or their philosophy of life (*gemoedsbezwaarden*) and for undocumented migrants (see Section 3.6.1). The Ministry of Defence finances and organizes healthcare for military personnel (see Section 3.6.1).

Children under the age of 18 are insured free of charge but have to be included in one of the parents' plans. Most insurers also offer free complementary VHI for children together with the parents' complementary VHI policy (Roos & Schut, 2008). Children are covered by a government contribution in the health insurance fund.

All Dutch residents are compulsorily insured for long-term care under the Long-term Care Act. The same exemptions apply as with the Health Insurance Act.

Uninsured and defaulters under the Health Insurance Act

Although basic health insurance is compulsory, not every citizen is insured. In 2013, 28 000 persons were uninsured and 316 000 persons were defaulters with a payment delay of at least six months (Ministry of Health, Welfare and Sport, 2014c). The number of uninsured individuals has been on the decline after years of gradual growth, since the government started in 2011 to track down the uninsured. Every month the National Healthcare Institute receives a report from the SVB (Social Insurance Bank). If it finds that a person has failed to purchase insurance, it will send a letter requesting that they do so. From that moment they have three months to purchase a health plan. If after three months the person still does not have an insurance policy, a penalty of €352 will be charged. After another three months, another €352 penalty will be charged. If the person nevertheless fails to purchase insurance, the National Healthcare Institute will purchase a plan on behalf of the uninsured for the duration of 12 months. A legally established premium (€122.33 per month in

2016; the standard (estimated) premium for a normal insurance policy is €99 in 2015) has to be deducted from the uninsured's income either directly by the employer or by the social security agency (National Healthcare Institute, 2015a).

The problem with defaulters has been harder to rein in, as evidenced by the approximately 2% of the population that is failing to pay their premiums (2013). There is a special protocol that should protect individuals from losing coverage. After six months of non-payment, defaulters are registered with the National Healthcare Institute. The National Healthcare Institute charges a so-called "administrative premium" of approximately €153 (130% of the standard premium). This premium has to be deducted directly from income by the employer or by the social security agency. It is charged monthly until the defaulter settles all debts with the insurer. In the meantime, the defaulter remains insured, but cannot switch to another insurer until the debt is settled (National Healthcare Institute, 2015b). The level of the administrative premium has frequently been criticized for putting already vulnerable individuals in further financial trouble. There are plans to lower this premium in 2016.

3.3.2 What is covered

The benefit package of the basic health insurance under the Health Insurance Act 2015 consisted of:

- medical care, including care provided by GPs, hospitals, medical specialists and midwives;
- hospital care;
- home nursing care and personal care (assistance with eating, dressing, etc.);
- dental care for children until the age of 18. For older people only, specialist dental care and a set of false teeth are covered;
- medical aids and devices;
- pharmaceutical care;
- maternity care (midwifery care and maternity care assistance);
- transportation of sick people by ambulance or taxi;
- professions additional to medicine (allied healthcare): physiotherapy for persons with a chronic medical condition (the first 20 sessions relating to the condition are excluded; there is a limiting list of conditions) and for children below the age of 18; occupational therapy; exercise therapy and dietary advice to a limited extent; speech therapy;

- quit-smoking programmes;
- geriatric rehabilitation care;
- care for people with sensory disabilities; and
- mental care: ambulatory mental care and inpatient mental care for the first three years. (After three years inpatient mental care is considered long-term care and is financed by the Long-term Care Act (Wlz).)

For some treatments, there are exclusions from the basic insurance package:

- for allied healthcare, generally, a maximum number of sessions are reimbursed;
- some elective procedures, for instance cosmetic plastic surgery without a medical indication, are excluded; and
- in vitro fertilization: only the first three attempts are included.

The central government takes decisions on the content of the basic health insurance package, on cost-sharing, on tariffs for health services if not negotiable (based on advice from the Dutch Healthcare Authority) and on services that are not subject to free negotiations. The National Healthcare Institute advises the Minister on what services should be included in the package. The main criteria refer to whether services are essential, effective, cost-effective and unaffordable for individuals. "Essential" refers to a service's capacity to prevent loss of quality of life or to treat life-threatening conditions. The affordability criteria state that no services need to be included that are affordable for individual citizens and for which they can take responsibility (Brouwer & Rutten, 2004).

These criteria form the subsequent steps to be made before a decision is taken on inclusion or exclusion of services in basic health insurance and although they were formulated in 1991, they are still applicable today. In practice, the criteria are not always easy to apply. For instance, what constitutes "essential care" is arguable, and decisions can be hampered by a lack of information on the efficiency of a service. Other problems may arise with regard to treatments of diseases resulting from unhealthy behaviour, or when pharmaceuticals covered by basic health insurance are used by other than the intended patient groups (Brouwer & Rutten, 2004).

The Long-term Care Act provides institutional care (which can also be provided at home) for all citizens who need 24 hours per day supervision. Whether a person qualifies for this type of care is assessed in a needs assessment. The care can be provided in a residential long-term care facility or at home by

a professional organization. Eligible people who nevertheless would prefer to stay at home and organize their own care can apply for a personal budget. Since January 2015 a government body, the Social Insurance Bank (*Sociale Verzekerings Bank*, SVB), manages the budget on behalf of the budget holder after reports about budget fraud. Previously, budget holders could manage their own budget.

Citizens who need care for less than 24 hours per day can receive nursing care and personal care at home via the Health Insurance Act. The needs assessment is performed by district nurses. When people need help with domestic care or social support, they may receive care under the Social Support Act. The objective of the Social Support Act is that municipalities support citizens to participate in society. This includes, for instance, home help, transport facilities and house adjustments. Municipalities first explore the opportunities of applicants to take care of themselves, with the help of their social network. If these resources are considered insufficient, publicly funded support will become available. Interestingly, municipalities are free to organize tailor-made support for their citizens, which may lead to different solutions among municipalities (see Section 6.1 for some preliminary evaluations of the effects of the reform).

For long-term care provided under the Social Support Act the rights-based approach of the former Exceptional Medical Expenses Act has been replaced with a provision-based approach. For example, municipalities may choose to substitute professional care with other care solutions, such as care provided by neighbours or volunteers, although the Act does not provide means to oblige the social network to help. All citizens can apply for support from their municipality. The municipality will decide whether help is necessary and what kind of help. Youth care under the Youth Act is available for all children under the age of 18 and their parents in the case of parenting problems and mental problems.

Social protection

Social protection in the Netherlands is not a part of the healthcare system and thus is regulated differently under different acts. To compensate for undesired income effects for lower-income groups, a "healthcare allowance" funded from general tax was created under the Healthcare Allowance Act (*Wet op de zorgtoeslag*, Wzt). The allowance is based on a "standard premium". This is the estimated average of the premiums offered by health insurers plus the compulsory deductible and is set by the Minister of Health (Ministry of Health, Welfare and Sport, 2005). As a result, insured persons who choose an insurer with a lower premium are not "punished" with a lower healthcare allowance.

The allowance is an advance payment per month and is based on the final tax assessment. Any difference between the total advance payment and the final entitlement will be settled with the individual. In 2013, 57% of Dutch households received a healthcare allowance. On average 41% of the premium was compensated for (Statistics Netherlands, 2015b). The total expenditure on healthcare allowance doubled from 2006 to €5.1 billion in 2013, whereas the number of households eligible for the allowance decreased because of stricter eligibility rules. The increase in expenditure is mainly due to the increase in healthcare allowance for the lowest income groups as compensation for the increase in the mandatory deductible. The maximum monthly healthcare allowance was €78 for singles and €149 for families in 2015.

Financial compensation for medical expenditures for chronically ill and disabled persons was abolished in 2014. In some cases exceptional medical costs can be deducted from income tax. Excluded from tax deductions are, inter alia, expenditures that can be reimbursed by health insurers or the municipality, cost-sharing for long-term care, glasses and walking aids such as walkers. Included are, inter alia, physical therapy, costs of transportation to a hospital, and some dietary costs. The costs should exceed a predefined income-dependent minimum.

Maternity leave is a right and allows for a leave of (at least) 16 weeks. Maternity leave may start six to four weeks before the expected date of birth. For employees on maternity leave, 100% of the salary is paid, with a maximum of approximately €200 per day in 2015. The employer is compensated by the Social Security Implementation Body (*Uitvoeringsorgaan Werknemers Verzekeringen*, UWV). Since 2008 self-employed women are also entitled to receive an allowance depending on the income of the previous year, with a maximum level of the legal minimum wage (UWV, 2015).

After two years of illness, employees receive a disability pension based on the percentage of income loss they experience due to their disability. The disability can be either mental or physical. Entitlement for a disability allowance and settlement of the percentage of disability is established by the Social Security Implementation Body (UWV). The disability allowance is up to 70% of the last income for those who are partly disabled (between 35% and 80%). These individuals receive an allowance only for the percentage to which they are considered to be disabled. The allowance is up to 75% of the last income for those who are fully disabled (over 80%), under the Act on Income and Labour (*Wet inkomen en arbeid*, WIA). Under this Act, the employer and

employee both have to work on reintegration into the labour process during the two-year waiting period. People who are less than 35% disabled do not receive any financial compensation.

Persons who were disabled before reaching 17 years of age or who became disabled during their formal education and who are expected to be unable to work for the rest of their lives are entitled to an allowance of a maximum of 75% of the legal minimum wage (*Wet arbeidsongeschiktheidsvoorziening voor jonggehandicapten,* Wajong).

How much of the benefit cost is covered?
The Netherlands operates a complex cost-sharing system but until now has upheld the principle that primary care is free at the point of delivery. All users of healthcare aged 18 and over have to pay a mandatory deductible per year, which does not apply to GP-care, maternity care and care for children under the age of 18. Pharmaceuticals and tests prescribed by GPs and care provided by medical specialists after referral by a GP are also subject to the deductible. The mandatory deductible has increased substantially over the years, from €150 in 2008 to €385 in 2016. This deductible replaced the no-claim regulation that was in place in 2006 and 2007. The no-claim was an amount of money that was paid back when no or only little healthcare was used (Schäfer et al., 2010).

Reimbursement for pharmaceutical care is based on a reference pricing system called the Medicine Reimbursement System (*Geneesmiddelen Vergoedings Systeem*, GVS). This system categorizes pharmaceuticals in groups of therapeutic equivalents. Health insurers may list preferred medicines (see Section 3.7.2), which means that patients who use other medicines with similar therapeutic properties may have to pay the difference in costs or the total amount. Some insurers do not charge the deductible when the patient uses the preferred medicine.

For residential long-term care income-dependent cost-sharing is applicable, ranging from €159 to €2285 euro per month.

More detailed information can be found in Section 3.4.

3.3.3 Collection

Health care in the Netherlands is mainly financed through insurance premiums and contributions under the Health Insurance Act and the Long-term Care Act (72%), and to a limited extent by general taxes (13%, figures for 2013). In

2015 the share of tax-financed care increased significantly compared to the previous years, as part of long-term care and youth care were transferred to the municipalities.

Income-dependent employer contributions under the Health Insurance Act are collected by the Tax Office, which levies the contribution from a person's salary together with payroll taxes. The contributions and taxes are paid directly to the Tax Office by the employer. In 2015 the income-dependent contribution amounted to 6.95% of income (with a ceiling of €3573 per year) for employees and social security recipients. For self-employed persons, the income-dependent contribution is based on the tax assessment of their income. For self-employed persons the contribution in 2015 was 4.85% of income (with a ceiling of €2494 per year). The different rates for employees and self-employed persons reflects the fact that employers and social security institutions pay the income-dependent contribution, thus lowering the taxable income of the employee, whereas self-employed persons have to pay this contribution themselves. The lower rate and ceiling therefore seek to alleviate the financial burden on self-employed persons (Ministry of Social Affairs and Employment, 2012). After collecting all the contributions, the Tax Office transfers the collected funds to the Health Insurance Fund (*Zorgverzekeringsfonds*), from which the money is allocated after risk adjustment to the health insurers.

The premiums are collected directly by the health insurer where the health plan is purchased. Health insurers are free to set the community-rated premium level. The average premium was estimated by the Ministry of Health to be around €1211 per year in 2015, approximately 5% of a net "modal income" (defined by the Netherlands Bureau for Economic Policy Analysis (*Centraal Planbureau*, CPB) as gross €33 000 per year) for 2014 in the Netherlands. In 2015 the premium varied from €990 to €1300. For children below the age of 18, the government covers the premium through a contribution from general revenue into the Health Insurance Fund.

Insurers are not allowed to vary the premium of one specific health plan for different groups of people. There is one exemption: insurers may offer collective contracts. Collective contracts are established between groups of insured (for example, employees of the same employer) and the health insurer. Insured people are free to join a collective health plan or buy an individual plan. Health insurers are allowed to offer a maximum of 10% reduction on the individual premium. Collective arrangements can be made by several legal bodies such as employers and patient organizations. This system is established to give the insured more influence ("voice") with the health insurers. The threat

of the loss of a large number of insured persons may persuade insurers to satisfy the members of the collective contract and compete on price and quality of care. In addition, successful negotiations may lead to more demand-driven care and care that is tailored to the needs of the target group of the collective (Groenewegen & de Jong, 2007). In 2015, 69% of insured persons participated in a collective insurance policy (Vektis, 2015).

To cover expenses arising from the Long-term Care Act, a contribution of 9.65% is levied on the salary of citizens, with a maximum of €3241 per year (2016). This contribution is collected by the Tax Office. The revenues are transferred to the Long-term Care Fund, administered by the Dutch Health care Institute.

Direct taxes are mainly levied from income tax, while indirect taxes mainly consist of VAT. Income tax is progressive. For VAT, there is a high tariff (21% in 2015) and a low tariff (6% in 2015, mainly for food, books and some services). All taxes are collected by the National Tax Office and are not earmarked for healthcare. From general revenue, the government (1) contributes to the Health Insurance Fund to provide children under 18 with coverage under the Health Insurance Act; (2) pays the healthcare allowance to households that are eligible and have filed an application (through the Tax Office); and (3) transfers funds to the municipality fund. The latter is used to cover the cost of decentralized long-term care under the Wmo 2015 and Youth Acts.

3.3.4 Pooling of funds

The Ministry of Health decides upon the national budget for healthcare. The Health Care Budget (*Budgetair Kader Zorg*, BKZ) indicates the maximum allowed healthcare expenditure. If providers and insurers spend more, the Minister may decide to charge insurers or providers to repay the excess, for instance by tariff cuts or repayment of part of the overspending.

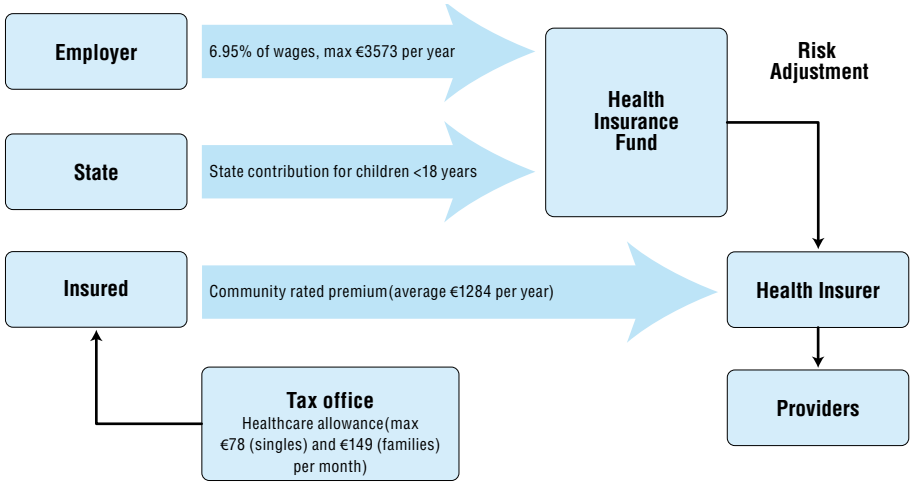
The Minister also decides upon the budget for both municipality-based decentralized healthcare and home nursing care. The municipality budget is paid into the municipality fund (which is broader than decentralized healthcare and covers about 90% of all expenditure by the municipalities). The budget of this fund is allocated over the municipalities, based upon certain indicators, such as number of citizens, the physical size of the municipality and the number of people entitled to social security.

Basic health insurance under the Health Insurance Act (Zvw)

In the Netherlands administering and providing basic health insurance is delegated to private health insurers. These insurers are funded by the premium directly received from the insured and a contribution from the Health Insurance Fund, which pools the income-dependent employer contributions (collected by the Tax Office) and the state contribution (for example, to cover children under 18) (see Fig. 3.7). The allocation of funds among health insurers is based on the health risks profile of their insured population. The Health Insurance Fund and risk adjustment are administered by the National Healthcare Institute. The government sets the level of the income-dependent contribution, with the notion that, at national level, the total income-dependent contributions for adults should amount to approximately 50% of the total funding of basic health insurance, while the premiums should account for the other 50%.

Fig. 3.7

Simplified depiction of financial flows under the Health Insurance Act (Zvw)



Source: Adapted from Schäfer et al., 2010.

Risk adjustment is a tool the government uses to prevent risk selection in the provision of basic health insurance and to promote fair competition. Health insurers are not allowed to vary their premium because of health risks and are obliged to accept each person who applies for an insurance plan. Risk adjustment implies that health insurers receive financial compensation for insured persons with unfavourable risk profiles, for example the elderly, chronically ill and

people who are incapacitated and have higher health costs. The idea is that it should make individuals with unfavourable risk profiles equally profitable customers as those in good health. Differences in the premium between insurers should reflect differences in efficiency rather than differences in the risk profiles of their respective insured population. Furthermore, more efficiently operating health insurers could lower their premiums and attract insured persons from less efficient insurance plans. The expected result is lower overall costs.

Ex ante risk adjustment

Each year all health insurers receive from the Health Insurance Fund a risk-adjusted contribution, in the form of risk-adjusted (weighted) capitation payments. The risk-adjusted contribution from the Health Insurance Fund is calculated as the insurer's total estimated health expenditure based on the risk profiles of their insured population minus the estimated income from their premium based on the calculation premium (*rekenpremie*) and the estimated income from the mandatory deductible. The calculation premium is a virtual premium used in the calculation for the national budget for health, welfare and sport (*Rijksbegroting Volksgezondheid*). If the individual premium levels were to be used for the calculation instead of the calculation premium, it could be an incentive for insurers to set a lower premium in order to receive a higher contribution from the Health Insurance Fund. Furthermore, even though only 50% of the funds are pooled, the risk adjustment is thus calculated on the basis of 100% of funds.

The risk-adjustment contribution is an *ex ante* system that is based not on real expenditure but on expected expenditure. It is calculated by means of risk-adjustment factors (see Box 3.1).

The risk-adjustment factors described above are based on statistical estimates of the health risks and the related costs under the Health Insurance Act of these individuals.

Ex post compensation

For curative somatic care, health insurers have been fully risk-bearing since January 2015. The previous compensation mechanism for cost variations has now been abolished, since the system of *ex ante* risk adjustment is considered to be sufficient and insurers have sufficient means to efficiently purchase care (Ministry of Health, Welfare and Sport, 2014b).

Box 3.1
Risk-adjustment factors

- Age and gender: older persons have on average higher healthcare costs compared to younger people. Females aged between 20 and 40 years have on average higher healthcare costs compared to men because of healthcare related to childbearing.
- Nature of the income (social security recipient, salary, self-employed) and socioeconomic status: this should compensate for socioeconomic differences in health among insured persons.
- Region: the Netherlands is divided into regions based on characteristics of the inhabitants of a zip-code (the first 4 digits) area. Higher compensation is provided for individuals living in regions with relatively high numbers of non-western immigrants, an above-average risk of mortality and a low average income.
- The average consumption of pharmaceuticals for groups of patients with chronic diseases (such as diabetes) who have a high pharmaceutical consumption and who are treated in an outpatient setting is used as an indicator for morbidity. Patients who use these pharmaceuticals are considered to be at risk for higher healthcare expenditure. The risk adjustment for pharmaceutical costs is divided into 20 pharmaceutical cost groups (*Farmaceutische kosten groepen*, FKGs).
- Some chronic conditions mainly treated in an inpatient setting. These chronic conditions are clustered in 13 diagnostic cost groups (*Diagnose kosten groepen*, DKGs) based on expenditure patterns. For each patient belonging to such a pattern, compensation is provided.
- Other included risk-adjustment criteria are the use of (medical) aids, high medical costs in previous years (for people that do not have the chronic conditions mentioned above, but do incur high costs), and previous use of mental care.
- Socioeconomic status.
- For mental care: those living in a one-person household, because people who live alone more often use mental care compared to people living in a two or more person household.

Source: Care Institute Netherlands, 2015d.

For outpatient curative mental care, the *ex ante* risk-adjustment system is still considered inadequate, therefore a bandwidth arrangement (*bandbreedteregeling*) limits the risk for health insurers. If the costs for mental care per insured person after applying the *ex ante* compensation mechanisms are more than €15 above the national average, any additional amount is compensated up to 90%. If these costs are more than €15 below the national average, the insurer has to pay back 90% of the difference up to that figure (amounts are valid for the year 2015). For long-term mental care, the *ex ante* mechanism is not functioning well. Therefore insurers will be compensated

for 100% of the incurred costs. The Minister of Health intends to abolish these compensation mechanisms in 2017 (Ministry of Health, Welfare and Sport, 2014b).

For nursing care and personal care, the *ex ante* mechanism has proven even more problematic. Insurers do not have a good notion of the costs as they only became responsible for purchasing this care in 2015. The Minister introduced a bandwidth arrangement of ±€5 of the average costs while costs outside this range are compensated for to 95%. This mechanism is also scheduled to be abolished in 2017 (Ministry of Health, Welfare and Sport, 2014b).

Long-term care (Wet Langdurige Zorg, Wlz)

The Long-term Care Act (Wlz) is funded from income-dependent contributions collected by the Tax Office from Dutch residents via employers. In addition, those individuals who receive long-term care are required to share in the costs. The total amount of cost-sharing depends on the individual's income and is levied by the Central Administration Office (CAK). Both sources of funding are pooled in the Long-term Care Fund, which is administered by the National Health care Institute. The Central Administration Office (CAK) then acts upon the payment order of the care offices. These regional offices have the statutory responsibility to purchase care for eligible patients, based on the intensity of care that is needed for their clients as assessed by the Centre for Needs Assessment (CIZ). Care offices are organized by the dominant health insurer in a given region, but this activity does not contribute to the profit or loss of a health insurer. This is discussed in more detail in Section 3.7.1.

Social support and youth care

Care provided by municipalities under the Social Support Act and Youth Act is financed from general tax revenue pooled in the Municipality Fund. The government decides upon the amount allocated to this fund. The distribution over the municipalities is based on a number of characteristics of the municipality, such as number of inhabitants, geographic size, and the number of persons entitled to social security. Municipalities are free to spend the budget according to their own insights. For social support (including domestic care) and youth care, at national level, an amount of €7.1 billion has been made available (Tweede Kamer der Staten-Generaal, 2014), which is about 10% of the total healthcare budget. Municipalities purchase care for their citizens who are eligible for youth care, social care and domestic care. Some municipalities cooperate with neighbouring municipalities to increase purchasing power. The municipalities receive their budget mainly from the national government via the Municipality Fund (36% in 2014) and targeted contributions (19%), while

the remainder comes from local taxes (17%) and other sources of income (Association of Netherlands Municipalities, 2015). However, the contribution from the Municipality Fund is not earmarked; municipalities are free to spend their allocated budget as they see fit. This construction was chosen to maximize the freedom that municipalities have to set their own policies and to minimize red tape and administrative burden. Apart from the obligation for municipalities to provide care, central government does not impose any restrictions. As a consequence, municipalities differ in their needs assessments, which may lead to inequalities in access to care among citizens of different municipalities. Accountability for policy and implementation of the Social Support Act takes place primarily at municipal level.

3.3.5 Purchasing and purchaser–provider relations

The organizational relationship between purchasers and providers in the Netherlands is based on contracting. Health care providers are independent and are contracted by the health insurers. With regard to the purchasing of curative care (Health Insurance Act), health insurers have two major negotiation tools at their disposal when contracting with providers. These are (1) negotiating services with providers on the basis of volume, quality and prices; and (2) selective contracting. The use of these tools should result in the efficient purchasing of care. Selective contracting may only be used by health insurers if they comply with their duty of care: they have to purchase sufficient care for their insured. At least theoretically, these mechanisms would lead to the disappearance of low-quality care providers. Selective contracting started in 2009 with one insurance policy (*de Zekur polis*) that explicitly used selective contracting. Selective contracting only relates to medical specialist care. For regular GP-care selective contracting hardly occurs. GPs agree on a contract with one health insurer (the preferred insurer) and ask the other insurers to use the same contract. Only for pay-for-performance and sometimes for integrated care activities the following insurers may decide not to agree with the preferred contract. Nowadays there are several budget policies that employ selective contracting. Insured people who visit non-contracted providers may have to pay about 20–50% of the hospital bill out-of-pocket. These budget policies, however, were anticipating the abolishing of the free choice of provider (Article 13 of the Health Insurance Act). Jurisprudence has ruled that reimbursement should be at least 75% of the bill to ensure that the free choice of provider is not hampered by financial considerations. Late in 2015 the Minister of Health encouraged insurers to give a reduction on the mandatory deductible if contracted care is used.

Since 2013, contracting of hospital care is functioning as originally envisaged. There are two segments. The fixed segment relates to care that is considered not feasible or undesirable to be funded by free pricing (Hasaart, 2011). This is mostly complex care that is delivered by a low number of providers, such as transplantation care, or care that is difficult to plan, such as trauma care. Patients always get the care provided under the regulated segment reimbursed from their health insurer (except for the mandatory deductible). Care in the other segment (about 70% of hospital care since 2013) is freely negotiable. The percentage of freely negotiable hospital care was only 10% in 2006 and has increased gradually since. This was done to give insurers and hospitals time to adapt to their new roles in the negotiation process.

Each insurer negotiates with each hospital. Some insurers negotiate a lump-sum budget, others negotiate on price and/or volume for individual treatments. Individual treatment episodes are expressed in Diagnosis Treatment Combinations (*DBCs*), which are also called care products. The DBC system is a variation on the DRG-system. The Dutch Healthcare Authority defines the DBCs. Since 2013, there are about 4400 DBCs. The free segment comprises care products for which negotiations are allowed. The care products for which the Dutch Healthcare Authority establishes the prices is called the fixed segment. Before 2015, insurers negotiated separately with medical specialists and hospitals. Since 2015 hospitals negotiate with insurers on tariffs for the free segment while hospitals and medical specialists negotiate on the prices of care provided by medical specialists. Since there are hardly any reliable and mutually agreed quality indicators available, quality still plays only a minor role in negotiations.

The hospital has to publish a "walk-in tariff" for all DBCs in the free segment. These tariffs apply if patients receive care for which their insurer has no contract. If this walk-in tariff is higher than the tariff that the insurer of the patient has negotiated with their contracted hospitals, the insurer may charge the patient for the difference. The above applies only for patients with a health plan that provides healthcare in-kind. For patients with a health plan where they receive restitution of their care expenditures, all provided care is reimbursed (see Section 3.4).

Although GPs prefer to negotiate in groups to increase their leverage with insurers, the Consumers and Markets Authority (ACM) hitherto had not allowed this, arguing that GPs should compete with each other. However, since late 2015 the ACM allows cooperation that is in the interest of the patient (Consumers and Markets Authority, 2015). Since 2015, the standard contract for GPs also

contains pay-for-performance elements but remunerating care innovations is still in its infancy (Dutch Healthcare Authority, 2015e). Furthermore, in 2015 GPs, health insurers, patient organizations and the Minister of Health agreed to decrease the administrative burden for GPs by reducing the number of quality indicators that should be reported to health insurers, as well as the number of authorizations for special medication and medical aids. Examples include: a prescription for a branded pharmaceutical instead of its generic equivalent now only needs the text "medically necessary", whereas previously it required a written motivation and consent of the health insurer; contracts with insurers will become more uniform, and have longer duration (but with a yearly evaluation); and health insurers will no longer determine the type of medicine that should be used for a certain condition (Croonen, 2015).

For nursing care and personal care, the majority of the health insurers negotiate a budget ceiling with the providers. For most integrated dementia care, specific agreements exist on delivery, budget, tariffs and the way this care can be declared (Dutch Healthcare Authority, 2015c).

For long-term residential care, care offices negotiate with providers about the price and quality of care. The budgets for the management of care offices are set by the Dutch Healthcare Authority (NZa) and approved by the Minister of Health. There is no budget ceiling for provided care. For ambulatory long-term care, there is no contract obligation but care is granted to providers based on tenders organized by the municipalities. Criteria for granting care are quality indicators and the extent to which the price of care is under the maximum tariff for this type of care. For inpatient long-term care, the care offices are obliged to contract with the provider the patient has chosen. When patients receive a personal budget instead of care in-kind, they are free to purchase their own care (although payments are administered by the SVB). There are no formal quality requirements for care purchased via a personal budget.

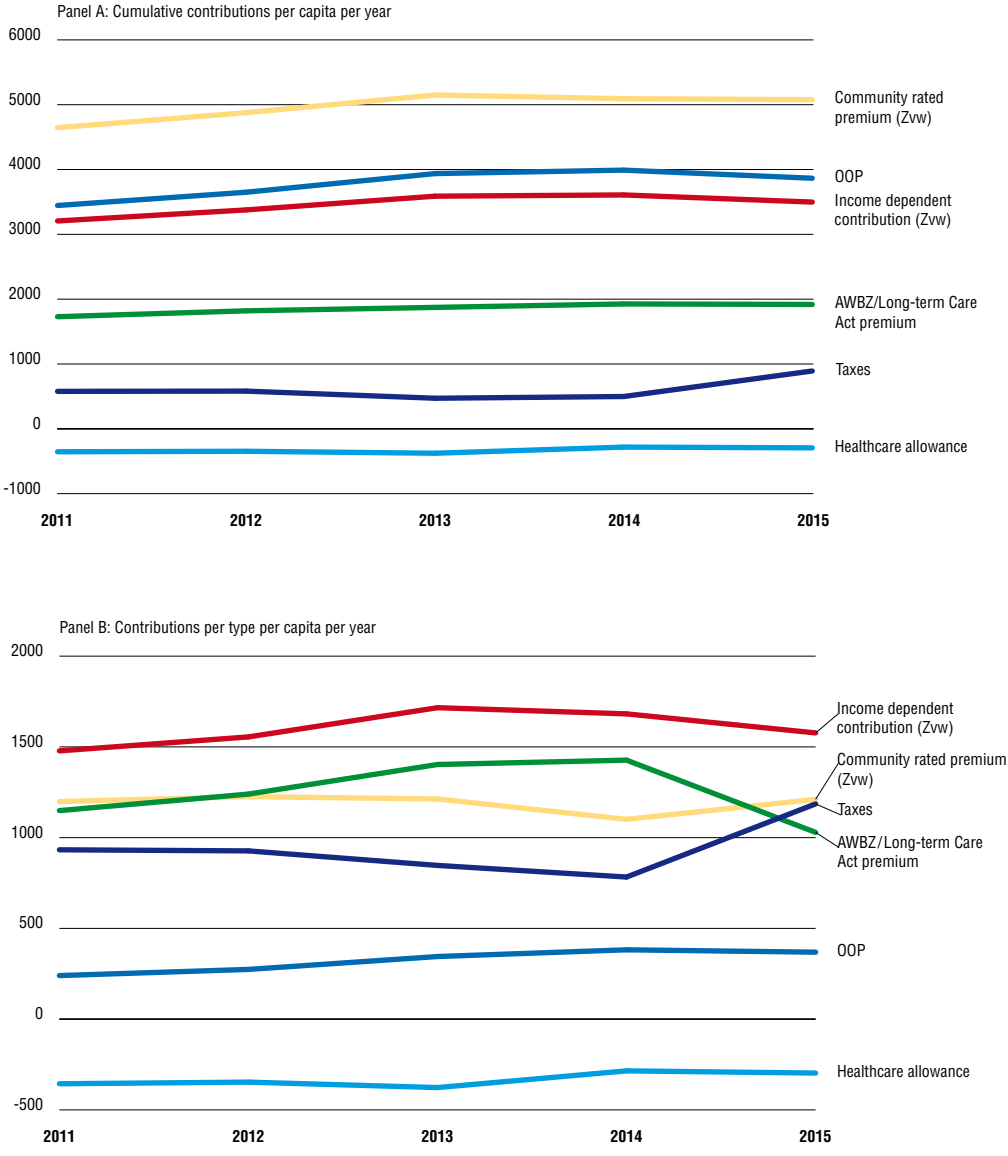
3.4 Out-of-pocket payments

Out-of-pocket expenditures increased between 2011 and 2015, mainly as a result of an increasing mandatory deductible (although this is not included in the national statistics) and shifting costs from public to private sources by excluding services from the basic benefit package (see Fig. 3.8). Over this period, the healthcare allowance decreased and out-of-pocket expenditure increased. The share of taxes increased in 2014 as a result of the shift of long-term care services to the municipalities. Consequently, the income-dependent contribution

for residential long-term care has decreased, since care that was previously supplied under the Exceptional Medical Expenses Act has now shifted to the Health Insurance Act (home nursing and inpatient mental care from one to three years) and to the municipalities.

Fig. 3.8

Average contributions to healthcare per inhabitant aged 18 and over



Source: Ministry of Health Welfare and Sport, 2014d.

3.4.1 Cost sharing (user charges)

Health Insurance Act (Zvw)

For basic health insurance, a compulsory deductible of €385 (in 2016) is levied for all individuals aged 18 or older. The deductible is levied on all healthcare expenditures except general practice care, maternity care, home nursing care and integrated care (for diabetes, COPD, asthma and cardiovascular risk management). The deductible is also levied on pharmaceuticals and diagnostic tests prescribed by GPs. The deductible includes expenditures on out-patient pharmaceutical care, but excludes co-payments for pharmaceuticals. The deductible is paid to the health insurer and should reduce moral hazard, that is, the use of additional or more expensive medical services caused by the fact that expenditures are (partly) compensated by insurance (Schut & Rutten, 2009). About 51% of the insured paid the full deductible in 2013 (Vektis, 2015). Most health insurers allow payment in monthly instalments.

Health insurers may choose not to charge this deductible, as a way to steer patients to good quality care. Since 2009 this option is used when patients (1) use preferred medicines (also see Section 3.7.2), or (2) follow preventive programmes for diabetes, depression, cardiovascular diseases, COPD (such as chronic bronchitis) or overweight. In 2015 a few health insurers applied this principle (Independer, 2015; Ziektekosten-vergelijken.nl, 2015). In the programme "Quality pays off" ("*Kwaliteit loont*"), launched in 2015, the Minister encouraged health insurers not to charge the deductible when the insured go to contracted providers (Ministry of Health, Welfare and Sport, 2015a).

In addition to the compulsory deductible health insurers offer a voluntary deductible, varying between €100 and the legal maximum of €500 per year. The level can be chosen each year by the insured. The choice for a voluntary deductible results in a reduction of the premium. The reduction of the yearly premium usually equals about 50% of the voluntary deductible (in 2015, for a voluntary deductible of €500, an average reduction on the premium of €236 was given, with a range of €150 to €324) (Dutch Healthcare Authority, 2015d). Health care expenses are first balanced with the compulsory deductible and then with the voluntary deductible, so in 2016 a voluntary deductible of €500 results in a deductible of €885 (€385 + €500) for the patient. In 2015, 12% of the insured chose a voluntary deductible, and most of them (69%) chose the maximum voluntary deductible (Vektis, 2015). For the voluntary deductible the same exemptions are in place as for the compulsory deductible (general

practice care, maternity care and home nursing care). Insurers are not allowed to extend the compulsory and voluntary deductibles to complementary VHI reimbursements.

For outpatient mental care, since 2014, no out-of-pocket payments other than the mandatory deductible are levied. Before 2014, an out-of-pocket payment of €20 per session was levied and a maximum of five sessions was covered.

The type of health plan also has potential influence over the total amount of cost-sharing. The insurers may offer two kinds of policy: a benefits in-kind (*natura*) policy and a restitution (*restitutie*) policy. The type of policy influences the access the insured has to healthcare providers: with the in-kind policy the patient has a right to care, although full reimbursement may be limited to contracted providers, while the restitution policy gives the patient the right to have compensation for the costs of care.

The in-kind policy implies that insurers have to provide care to their insured persons through healthcare providers that are contracted by the insurer. The insured person does not receive a bill for the provided care. If the insured person decides to choose a non-contracted provider, the health insurer may establish the level of the compensation for the insured person. The compensation should, however, be such that the choice of a non-contracted provider remains a financially feasible option. Providers are obliged to publish their tariffs for non-contracted care (see also "walk-in" tariffs in Section 3.3.4). A relatively new development among in-kind policies is the selective policy. This plan, which includes only a limited number of contracted healthcare providers, is often (but not always) cheaper than the conventional in-kind policy. Patients who go to a non-contracted provider are reimbursed to only 50%-90% from what is usually paid in the market or, if applicable, the legally set maximum tariffs. Although jurisprudence ruled that 75% reimbursement was the minimum, the budget policies were offered in anticipation of the abolition of freedom of choice, which failed to pass the Senate in December 2014. For non-budget policies the reimbursement is normally between 75% and 80%. About 7.5% of the Dutch population purchased a selective policy in 2015 (Dutch Healthcare Authority, 2015d). On average budget plans are €118 per year cheaper than other in-kind policies.

The second type of policy is the restitution policy, which grants the insured reimbursement of their healthcare bill and a free choice of provider. In principle, the insured pay the bill out-of-pocket and are reimbursed afterwards by the health insurer, although in reality expensive healthcare bills are paid directly by the insurer. The health insurer is not allowed to limit reimbursement for

the insured person. However, the health insurer does not have to reimburse more than is considered reasonable in the Dutch healthcare market (in a court ruling "reasonable" is described as in accordance with the market (Staat der Nederlanden, 2005)). The health insurer is obliged to mediate between patient and provider to facilitate the care requested by the insured person.

In practice, there are also combinations of these two policies. For instance, some insurers offer a restitution policy, but provide the opportunity to pay bills directly to contracted providers. In 2015 about half (48%) of Dutch citizens had an in-kind policy, approximately a quarter (23%) had a restitution policy, about a fifth (21%) had a combination policy and 7% had a selective policy. The percentage of insured having a selective policy increased from 3% in 2014 to 7% in 2015, while the percentage of those with an in-kind policy remained constant between 2014 and 2015 (Vektis, 2015).

Long-term Care Act (Wlz)

For long-term residential care, there exists a complicated system of income-dependent cost-sharing requirements, in the form of co-insurance with an out-of-pocket ceiling. Co-insurance means that the user pays a fixed share of the cost of a service, with a third party paying the remaining share. There are two types of co-insurance rates: the high co-insurance rate and the low co-insurance rate. For the first six months of care, all patients pay the low co-insurance rate. If patients have a partner and/or dependent children at home, they continue paying the low co-insurance rate after six months, but all other patients then have to start paying the high co-insurance rate. The amount of the co-insurance depends on the patient's income and 8% of their assets. The low co-insurance rate is 12.5% of income (in other words, the insured pays up to 12.5% of his income, and the remaining costs, if applicable, are paid via the Wlz), with a €159 minimum and a €833 ceiling per month in 2015. The high co-insurance rate consists of the patient's total taxable income and part of their assets, with a maximum of €2285 per year in 2015. The patient may keep a fixed pocket money and dressing allowance (€3517 for single people and €5471 for couples per year). The co-insurance for inpatient residential care is calculated and levied by the Central Administration Office (*Centraal administratiekantoor*, CAK). Compared to neighbouring countries, cost-sharing is very low (in the Netherlands it was €1.1 per capita in 2013, compared to €90.6 in Belgium and €142.1 in Germany (OECD, 2015)).

Table 3.4
Cost sharing for health services

Health Service	Type of user charge in place	Exemptions and/or reduced rates	Cap on OOP spending	Other protection mechanisms
GP visit	None	For prescription drugs and diagnostic tests the mandatory deductible is levied	–	–
Maternity care	None	–	–	–
Home nursing care and personal care	None (since 2015)	–	–	–
Physical therapy	Direct payments	For patients on a positive list of chronic conditions, only the first 20 sessions have to be paid out-of-pocket	–	–
Outpatient specialist visit	Mandatory deductible if patient is 18 years or over	An extra voluntary deductible of max €500 is optional	Maximum: mandatory deductible	–
Outpatient prescription drugs	Mandatory deductible if patient is 18 years or over	An extra voluntary deductible of max €500 is optional	Maximum: mandatory deductible	Some insurers do not charge the mandatory deductible if patients use the preferred medicine as set by the insurer
Inpatient stay	Mandatory deductible if patient is 18 years or over	An extra voluntary deductible of max €500 is optional	Maximum: mandatory deductible (added with, if applicable, the voluntary deductible)	–
Dental care	Direct payments, except for specialist dental care and a set of false teeth (for false teeth a co-insurance of 25% of the total costs has to be paid. For both specialist dental care and false teeth the mandatory deductible is applicable)	For children under the age of 18 dental care is fully reimbursed	–	–
Medical devices	Mandatory deductible if patient is 18 years or over	An extra voluntary deductible of max €500 is optional	Maximum: mandatory deductible	–
Long-term care	Depending on income, assets and personal situation	–	–	–
	For households using also Wmo care a regulation is in place that mostly limits cost-sharing to the maximum contribution for Wlz care.	–	–	–

Source: Authors' compilation.

Home help, social support and aids

For home help, social support and aids such as wheelchairs, municipalities are allowed to ask recipients to share in the cost on the basis of their income. However, municipalities are free to set their own maximum out-of-pocket payments. There is an anti-accumulation regulation available for households receiving both Wlz-care and Wmo-care. Households do not pay more than the maximum Wlz-contribution, except when in one household one member uses residential care and another sheltered housing. In that case both recipients have to pay the maximum contribution for couples, which is divided proportionally between the recipients (Ministry of Health, Welfare and Sport, 2015c). In 2015 compensation of 33% on the total cost-sharing amount was abolished. The effect on individual households depends on their income and on measures taken by the municipality, such as the option to remit cost-sharing for the lowest income groups.

For youth care, a parental contribution is applicable for children who reside outside their parental home. The amount is set nationally and in 2015 amounted per month to €75–€133, depending on the age of the child.

Voluntary health insurance may cover costs of care not included under the Health Insurance Act, such as dental care, classes and physical therapy. VHI may not cover the mandatory deductible.

3.4.2 Direct payments

Direct payments are made for services that are excluded from the basic benefit package. Most notably this includes the majority of dental care for those over 18 years, physical therapy (for persons without a chronic indication), walkers, contraceptives, benzodiazepines (sleeping pills and tranquillizers), statins (lipid lowering medication), acetylcysteine (reducing the viscosity of mucous secretions) and cosmetic surgery without a medical indication. These services are considered either inessential, ineffective or affordable by individuals. It is permissible to purchase complementary VHI for these services.

3.4.3 Informal payments

Informal payments do not play a role in the Dutch health system.

3.5 Voluntary health insurance (VHI)

Most health insurers offer voluntary packages in combination with the basic benefit package. Unlike with basic health insurance, health insurers are free to set premium levels and use risk selection (for example, based on medical criteria or other risks) for complementary VHI. They are also free to define which risks are covered. Most insurers make it unattractive to have VHI without basic insurance by making VHI more expensive if it is not purchased in combination with basic insurance. As a result of risk selection for VHI and the large share of citizens who have VHI, insurers thus have a potentially effective tool to influence access to basic health insurance. A 2010 study revealed, however, that this appeared not to be the case (Roos & Schut, 2010). An interim report of a study by the Dutch Healthcare Authority into the subject concluded that there are indications of risk selection. They found that health insurers tend to attract persons with a favourable risk profile rather than holding off persons with unfavourable risks. It is not yet clear to what extent health insurers deliberately use risk selection (Dutch Healthcare Authority, 2015f).

In the Netherlands VHI can be characterized as complementary as it provides cover for services that are excluded or not fully covered by the Health Insurance Act (Zvw). Health insurers offer a variety of complementary VHI that may cover all kinds of extra care or out-of-pocket payments. Re-insurance of the compulsory deductible is allowed via VHI, but in practice this is only offered to social security recipients, people with a minimum income, students and foreign seasonal workers (Ministry of Health, Welfare and Sport, 2014a). In 2015, 84% of the insured purchased complementary VHI. The number of people purchasing complementary VHI decreased gradually over the years: in 2006, 93% of the insured purchased VHI (Vektis, 2015) . Most health insurers offer free complementary VHI for children. In practice the child is covered for the same complementary VHI as the parent.

Complementary VHI may include healthcare that is not evidence-based or that is not considered medically necessary, and/or care that can reasonably be afforded by an individual. VHI covers, for instance, dental care for adults, glasses and physiotherapy (for persons without a chronic indication) since these are considered to be affordable by individuals. An example of non-evidence-based medicine is homoeopathic therapy. Complementary VHI packages vary considerably among insurers, and individual insurers can offer several different packages. The average yearly premium for VHI was €314 in 2013. The average reimbursement per insured was €260 in 2013, the largest share accounted for

by reimbursements for dental care (€112 per year in 2013) and allied healthcare (€71 in 2013). About 78% of the insured have complementary insurance for dental care (Vektis, 2015).

3.6 Other financing

3.6.1 Parallel health systems

Persons who refuse to insure themselves on grounds of religious beliefs or their philosophy of life (*gemoedsbezwaarden*) do not have to purchase basic health insurance but they do have to pay a general income tax equal to the income-dependent employer contribution. These contributions are deposited in personal accounts (there is no pooling), which are managed by the Dutch Health care Institute. The healthcare expenditures for these individuals are reimbursed from their personal accounts. If healthcare expenditure exceeds the account balance, the individual has to pay the costs out-of-pocket. In 2012 there were 12 500 *gemoedsbezwaarden*.

The Ministry of Defence finances and organizes healthcare for military personnel. Members of the armed forces thus do not buy basic health insurance under the Health Insurance Act. Care is provided by the Military Medical Service (*Militaire Geneeskundige Dienst*).

Undocumented migrants cannot purchase health insurance under the Health Insurance Act. In principle, they have to pay for the care they receive out-of-pocket. Because many of these persons are not able to pay, but healthcare providers are obliged to provide medically necessary care, healthcare providers can, under certain conditions, receive a refund from the government. The National Health care Institute is responsible for enforcing the regulation for the payment of care for illegal immigrants. Since January 2009 two types of care are distinguished: directly accessible care and care that needs a referral or prescription. Directly accessible care consists of primary care (except pharmaceutical care) and emergency hospital care. The compensation for directly accessible care is in most cases 80% of the non-collectible expenses. Care that needs a referral or a prescription is only refunded to institutions that have a contract with the National Health care Institute for this purpose. In order to receive a refund, the following conditions should be met: (1) there has to be an unpaid bill that cannot be collected from or on behalf of the patient; (2) the patient is not insured and cannot apply for insurance because of his or her illegal status; (3) the care should be essential; and (4) the care should be part

of the basic health insurance package or the Long-term Care Act (Wlz). The healthcare provider that provides the treatment decides whether the care was essential with respect to the type of service, the nature of the treatment and the expected length of stay in the Netherlands. For pregnancy and delivery, 100% of the non-collectible expenses are refunded. For referred care and pharmaceutical prescriptions, only designated hospitals and pharmacies (i.e. those having a contract with the National Health care Institute) can apply for reimbursement, the level of which is subject to negotiation National Healthcare Institute, 2015c). For pharmaceutical care, in each Dutch region designated pharmacies have been contracted. These pharmacies have to levy an out-of-pocket payment of €5 per drug from the undocumented person. If the person does not pay, the pharmacy is not obliged to deliver the drugs. The remaining amount will be reimbursed by the National Health care Institute. For hospital care, designated hospitals have been contracted. Care is reimbursed according to the rules agreed in the contract. Non-contracted hospitals can obtain a reimbursement of 80% of the provided care, but only if a referral or transfer to a contracted hospital was not possible.

3.6.2 External sources of funds

External sources of funds do not play a notable role in the Dutch health system.

3.6.3 Other sources of financing

Other sources of financing do not play a notable role in the Dutch health system.

3.7 Payment mechanisms

3.7.1 Paying for health services

Hospital care under the Health Insurance Act (Zvw)
Dutch hospitals have been paid through Diagnosis Treatment Combinations (DBCs) since 2005. The DBC system was inspired by the concept of DRGs (diagnosis-related groups), but it constitutes a newly developed classification system. While DRG systems group patients according to diagnosis or procedure with the highest amount of needed resources into a single DRG, the DBC system provides a DBC for each diagnosis-treatment combination and thus more than one DBC per patient is possible. This should provide more flexibility in the case

of multi-morbidity, where more than one medical specialist treats the patient during one admission or the patient receives more than one treatment from one medical specialist.

The DBC system forces hospitals to provide an overview of the total costs of each treatment from the first consultation until final follow-up check after treatment. The DBC-system is considered the basis of managed competition in hospital care and should increase the efficiency of the hospital sector. The Ministry of Health, Welfare and Sport, together with hospitals, medical specialists and insurers, has established the treatment options and associated costs for each diagnosis. DBCs (since 2012 also called care products) cover the costs of medical specialist care, nursing care and the use of medical equipment and diagnostic procedures. Apart from these direct costs, indirect costs such as education, research and emergency care are also included. The duration (within a certain range) of a hospital stay, or more or fewer diagnostic procedures, has no influence on the DBC. For patients who go to hospital for medical advice but are referred back to their GP without a diagnosis or treatment, different and less costly DBCs are available.

The Dutch Healthcare Authority is responsible for adjusting and updating the DBC system. Hospital care providers are obliged to provide their DBC data to the DBC information system. In 2012 a new DBC system was introduced that drastically reduced the number of DBCs. Previously, 30 000 DBCs were applicable, but in 2012 this was reduced to 4400 because the system was considered too complicated, error-prone and susceptible to fraud. In the Netherlands the new DBCs are called DOTs (DBCs On the way to Transparency) to distinguish them from the old DBCs.

For the free segment (negotiable DBCs; see also Section 3.3.4), the DBCs are automatically derived from the hospital information system. A programme, called the grouper, derives the care product based on a decision tree set by the National Health care Institute. This grouper provides a declaration code for each care product. This code, together with the negotiated price, is used for billing the insurer. For the regulated segment (non-negotiable DBCs), the Dutch Healthcare Authority sets maximum prices. Patients get this care reimbursed in all cases, as they do when selective contracting is in place.

Some treatments that would disproportionally increase the cost of treatment, such as admission to intensive care or very expensive pharmaceuticals, are not included in the price of a DBC care product, but can be billed as an add-on: an additional reimbursement. Furthermore, the hospital may receive extra payment for costs which cannot be assigned to a DBC. Such payments may be, inter alia,

payments for educational tasks and payments for maintaining an emergency department in areas with low population density, which would otherwise not be affordable.

Long-term care provided under the Long-term Care Act (Wlz)
Payment of providers of institutional long-term care is based on the intensity and complexity of the care provided. Intensity and complexity of care can be divided into several care intensity packages (*zorgzwaartepakketten*). A care intensity package is a specific package of care, prescribed by the characteristics of the client and the hours of care needed, and includes a description of the required care. There are different care intensity packages for different sectors of care. There are 10 packages for the nursing and caring sector, 14 packages for the mental care sector and 30 for the care for disabled people. The budget for each care intensity package is set by the Dutch Healthcare Authority (NZa) and covers personnel, housing and resources. In 2015 the tariffs of care intensity packages varied from €68 per day to €323 per day (Dutch Healthcare Authority, 2015a). The intensity of care a patient needs, and thus the corresponding care intensity package, is assessed by an independent organization: the Centre for Needs Assessment (CIZ). The responsibility of purchasing inpatient long-term care is delegated to care offices (*Zorgkantoren*).

The actual payment of Wlz-care depends on whether the patient receives the care in-kind or whether they choose a personal budget. For care that is provided in-kind, the patient settles the income-dependent cost-sharing requirements with the Central Administration Office (CAK). The CAK then pays the providers from the Long-term Care Fund on receiving a payment order from the care offices. When patients have chosen a personal budget, they contract their own care providers. The budget is paid to the Social Insurance Bank (SVB), which then takes care of paying the providers. Previously (before 2015) patients received the personal budget directly on their own bank account. To prevent fraud, this changed in 2015. Patients now send their contracts and invoices to the Social Insurance Bank. The patient pays the income-dependent cost-sharing to the CAK. Tariffs for personal budgets vary from €40 to €285 per day in 2016 (National Healthcare Institute, 2015d).

Social support services provided under the Social Support Act (Wmo)
The municipalities pay the providers for Wmo home care services. The municipality settles the cost-sharing requirements or outsources this to the Central Administration Office (CAK). Municipalities purchase care from home care organizations via a public procurement procedure. This care is offered to the clients in-kind. Municipalities can independently establish the level of

out-of-pocket payments by the clients. For patients who prefer to organize and purchase their own care, there is the option of a personal budget. Patients receive a budget based on their need for care. They can purchase this care from professional organizations or arrange their own care personnel. These may be professionals, but may also be family members or other non-professionals, who are directly employed by the patient. The municipal personal budget is also paid to and distributed by the Social Insurance Bank.

Mental healthcare

In 2014 a major reform was introduced in mental healthcare. For mental healthcare, the GP is initially responsible, and may employ a mental care practice nurse (POH-GGZ). The GP gets paid for the services of this practice nurse through a contract with the health insurer.

When the GP suspects a DSM-IV disorder, the patient is referred to basic mental care. Four care products have been defined for this type of care: short, medium, severe and chronic. For each care product, the Dutch Healthcare Authority has established a maximum tariff. Providers and health insurers negotiate the actual reimbursed tariff. If providers have a contract with a health insurer, the bill is directly forwarded to the health insurer. If there is no contract, the bill is sent to the patient, who then can get the amount (partly) reimbursed from his insurer.

Table 3.5

Care products for basic mental care in 2014

Care product	Type of disorder
Basic short	Light DSM disorders
Basic medium	Moderate/severe DSM disorders
Basic severe	Severe DSM disorders
Basic chronic	Chronic stable disorders
Incorrect referral	Patient is referred back to the GP in the diagnostic phase; no DSM-IV diagnosis applicable

Source: Ministry of Health, Welfare and Sport, 2016.

Specialized mental care for complex cases was formerly exclusively financed through the Exceptional Medical Expenses Act (AWBZ). Since 2008, however, the first year of this type of care has been covered under the Health Insurance Act (Zvw); this was extended to the first three years in 2015. The payment for mental care providers for complex mental care is based on the same system as curative hospital care (that is, DBCs). Only care that is the result of an individual and voluntary demand for care can be reimbursed under the Health Insurance Act. Treatment of the patient is categorized by the type of activity

and the time spent on this activity and/or in days of stay for inpatient care in combination with the care intensity, varying from light to very intensive (Dutch Healthcare Authority, 2014c). The care is financed based on diagnosis and time spent in ranges (for instance: alcohol disorder: 250–700 minutes: €1102; 800–1799 minutes: €2280). This provides strong incentives to treat patients for longer, without better treatment outcomes (Douven, Remmerswaal & Mosca, 2015; Douven, Remmerswaal & Zoutenbier, 2015). Prices are calculated by the Dutch Healthcare Authority, based on cost data of a sample of providers.

Inpatient youth care is financed in the same way as specialized mental care (through DBCs) and is, since 2015, the responsibility of municipalities. The DBC system was introduced to enable negotiations between mental care providers and health insurers. Since 2013 the budget system for mental care has been abolished and health insurers now purchase care from mental care providers. The current DBC structure is mainly based on diagnosis and time spent. The Dutch Healthcare Authority found indications of upcoding (providers register a bit more time in order to receive a higher tariff). As a preventive measure, providers now have to register the actual time spent. The Dutch Healthcare Authority advocates a further development of the product structure so that it better accounts for actual care demand.

For care that takes longer than 365 days, payment changes from DBCs to care intensity packages (see long-term care). After three years the care falls under the Long-term Care Act and continues to be paid via care intensity packages.

Pharmaceutical care

Inpatient pharmaceutical care (for both somatic and mental care) is included in the DBC system for institutional care. In outpatient care, pharmaceuticals will only be reimbursed by health insurers if they are included in the Medicine Reimbursement System (GVS) (see Section 3.3.1). A few expensive outpatient medicines have been shifted from the GVS and became the responsibility of the hospitals: these include TNF inhibitors (in 2012), growth hormones and expensive cancer medicines (2013), fertility hormones (2014) and all other cancer medicines (2015) (see Section 6.1).

An overview of the payment mechanisms for health services and health workers is given in Table 3.6.

Table 3.6
Overview: paying healthcare providers

Health service	Payment system	Health worker	Payment system
General practice	The remuneration is a combination of: • capitation fees • consultation fees • out-of-hours care: mainly per hour • integrated care (bundled payments) • prevention (influenza vaccination, cervical screening), medical examinations: fee-for-service • some pay for performance	General practitioners	GP payment consists of what they get through the reimbursement system minus their practice costs some GPs are in salaried service with a GP practice or primary care centre
		Practice nurses	Either in salaried service or, in the case of mental practice nurses, hired from a mental healthcare provider
Other primary care	–	Other primary care providers (dentists, physical therapists, etc.)	Fee-for-service
Medical specialist care	DBCs (Diagnosis-Treatment Combinations)	Medical specialists Independent professionals have united in medical	Independent professionals have united in medical specialist companies and these companies negotiate with the hospitals on remuneration. One-third of medical specialists are in salaried service with a hospital
		Nurses	Salary
Domestic care	Negotiated prices	Home helps	Salary
Home nursing care	In development	District nurses	Salary
–	–	Other care providers	Salary
Mental care	DBCs for mental care	Personnel	Salary
Long-term residential care	Care intensity packages	Personnel	Salary

Source: Authors' compilation.

3.7.2 Paying health workers

General practitioners

In 2013 the providers of GP care, health insurers and the Minister of Health agreed that a new payment system for GPs would be introduced in 2015. The new system should contribute to the central role of primary care in the Dutch healthcare system. It should stimulate integrated care and cooperation between healthcare providers. It should also stimulate substitution from secondary care to primary care (InEen, 2014; National Association of GPs et al., 2013).

The new system consists of three segments. The first segment addresses the basic care of general practitioners. This is care for which the GP is the first contact and where the GP functions as a gatekeeper to secondary care. There are three different payment types in this segment. First, there is a capitation fee for each patient registered with the practice, which is differentiated according to age (above or under 65 years of age) and deprivation status (based on zip code). In addition, GPs may bill for each consultation and home visit. GPs can bill these two payment types even if they have no contract with a given health insurer. Furthermore, there is a fee for the practice nurse providing mental care and a few other types of care, but the GP needs a contract to receive payment. The Dutch Healthcare Authority establishes maximum tariffs for the care elements in this segment.

The second segment applies to integrated care. In 2010 a bundled payment system was introduced for this type of care. Integrated care addresses care for patients with the following chronic conditions: diabetes type II, COPD, asthma and those at high risk of cardiovascular diseases. What is considered appropriate care is laid down in a care standard that has been developed for each of the four conditions. According to the system of bundled payments, a care group organizes all the care necessary for managing these diseases. Care groups are owned by GPs in a certain region, and vary in size from 4 to 150 GPs. The care group coordinates the care and remunerates the care providers involved. Patients are free to participate in a care group or choose their own care providers. About 80% of Dutch GP practices joined a care group in 2014 (van Hassel et al., 2015).

The care group is responsible for all the care that is related to the chronic condition of the patient. The care group negotiates a fixed fee per patient with a health insurer. A contract with a health insurer is a necessary precondition for bundled payments. GPs continue to receive the existing capitation fee. Payment for consultations that address the chronic condition(s) are included in the integrated care fee, while for issues that are not related to the chronic condition, the GP still receives the consultation fee from the insurer. If there is no contract with health insurers, GPs do not receive payment for this type of care. The costs of practice nurses for somatic care are covered by this segment.

The third segment is dedicated to pay-for-performance and innovation. These types of payment are also subject to having a contract with health insurers. The pay-for-performance scheme addresses, for example, the accessibility of the practice, efficiency of prescribing pharmaceuticals and efficiency in referring patients to secondary care, but also non-care-related issues such as accreditation

of the practice (InEen, 2014; National Association of GPs et al., 2013). For 2015 the pay-for-performance scheme focused on adequate performance of the gatekeeping function and rational prescribing of medicines, as well as service and access (National Association of GPs et al., 2014).

At the level of GPs, the first segment should cover about 77% of the practice turnover and the other two segments 23%. At macro level, the Minister of Health, insurers' associations, patient associations and the primary care association have agreed a growth rate of 1.5% per year for basic GP care (segment 1) and integrated care (segment 2). For the substitution of secondary care to primary care, innovation and the introduction of pay-for-performance (segment 3) an additional annual growth of 1% is permitted (InEen, 2014; National Association of GPs et al., 2013).

Out-of-hours services for GP care are mostly provided by GP out-of-hours cooperatives. GPs who participate in this system receive a per-hour compensation. For GPs who do not participate, specific fees for consultations, home visits and prescription refills are applicable that are higher than the fees charged during office hours. Almost all GPs participate in a GP out-of-hours cooperative.

As GPs are independent entrepreneurs, the income of GPs is the difference between revenue and practice costs.

Medical specialists

Medical specialists are either independent professionals organized in partnerships working in a hospital (60%) or they are in salaried service of a hospital (Rabobank, 2014/2015). Between 2008 and 2015 independent medical specialists were paid through the DBC system. For each DBC a normative time spent by the specialist and an hourly tariff were established. The norms were established by the Dutch Healthcare Authority (NZa). The tariff was equal for all medical specialties and was based on research from the Normative Hourly Tariff Commission (*Commissie Normatief Uurtarief*), which was set up by the Minister of Health in 2004 after consultation with the Association of Medical Specialists (OMS).

Since 2015 health insurers have negotiated with hospitals on prices of DBCs, which include the payment of medical specialists. Independent medical specialists now have to negotiate their remuneration with the hospital they are working in. The Minister of Health hoped that independent medical specialists would become salaried professionals of hospitals. However, a questionnaire by the Federation of Medical Specialists among 67 hospitals found that only about

5% considered this option. In the other hospitals medical specialists mainly chose to unite in a medical specialist company (*medisch specialistisch bedrijf*) and negotiate their remuneration with the hospital. Another small share of specialists considered becoming shareholders in the hospital (de Kwant, 2014; Sijmons, 2014). The new situation led to a discussion as to whether independent medical specialists can still be seen as independent entrepreneurs. This is relevant because if the Tax Office now considers them to be in salaried service, this may have consequences for their fiscal position. There is no information available yet (late 2015) on the effect of these changes on the remuneration of medical specialists.

Pharmacists

Since January 2012 there have been two important developments in the payment of Dutch pharmacists. Firstly, a distinction was introduced between the costs of medicines and the related care activities provided by pharmacists, such as providing information and checking the appropriateness of prescriptions. For the care delivered by pharmacists, the Dutch Health Authority defined a number of services that may be subject to reimbursement. Secondly, the prices of all services are to be negotiated with health insurers.

In 2015, 13 different services were defined in the care that pharmacists deliver, of which seven are covered by the Health Insurance Act:

1. care related to the delivery of a first-time prescription (introduced in 2014), which includes a check on the appropriateness of the prescription and potential interference with medicines already used by the patient; advice on how to take the medicine and providing information about possible side-effects;
2. care related to the delivery of a prescribed medicine (repeat prescription) which includes, inter alia, a check on appropriateness, correct use and experiences of the patient with its use;
3. instructions for the use of a device needed to take a medicine (such as an inhaler);
4. medication review, a periodic evaluation of the medicines used by patients with a chronic disease;
5. pharmaceutical counselling (including a medication review) in case of a hospital admission;
6. pharmaceutical counselling in case of a hospital discharge; and
7. pharmaceutical counselling in the case of day care or outpatient hospital visits.

The remaining, non-insured (secondary) services may relate to advice for travellers, advice on the use of self-care medicines, group counselling of patients with a specific disease (for example, diabetes mellitus) or using a specific drug, and services between pharmacists. The primary services have to be negotiated between insurers and pharmacists on volume and price in such way that in a given area there is sufficient pharmaceutical care for the insured. Health insurers may negotiate with pharmacists with respect to the availability and price of non-insured secondary services, but they are not obliged to do so.

For the delivery of medicines, there are two main options. Most health insurers follow a preferred medicine policy which means that they select one specific brand from different brands of pharmaceuticals with the same active substance. Generally, this is the cheapest available. Pharmacists are obliged to deliver only the preferred brand to the insured of a specific health insurer. Preferred medicines are listed (and thus may change) every six to twelve months. Another option is that the insurer sets a maximum price (price preference) and leaves the choice of the brand to the pharmacist. If the pharmacist does not succeed in buying the pharmaceutical for this price, he is not allowed to charge the patient for the difference. If he succeeds in buying the product more cheaply, he may keep the difference.

A summary of the payment mechanisms is provided in Table 3.7. (see overleaf.)

Table 3.7
Overview: who pays for health services?

		Patient	Health insurer	National funds/ organizations
Basic package				
Restitution policy		Pays the bill directly to the provider	Reimburses the patient, after deducting the out-of-pocket payment	Health Insurance Fund transfers risk-adjusted contribution to the health insurer
In-kind policy		Pays the deductible to the health insurer	Directly reimburses the providers, charges the patient for the deductible	Health Insurance Fund transfers risk-adjusted contribution to the health insurer
Long-term care				
Care provided in-kind 24 hours per day supervision (Long-term Care Act)	Patient settles income-dependent cost-sharing requirements with the CAK	Care offices (organized by regionally dominant health insurers) negotiate the price of care with the provider	CAK pays the providers upon a payment order from the care office and collects cost-sharing	CIZ assesses the care intensity package needed for a patient
	Nursing care at home (Health Insurance Act)	–	Health insurers negotiate the price of care with the provider	–
	Domestic care (Wmo, 2015)	Patient settles income-dependent cost-sharing requirements with the CAK or municipality	Municipalities pay the providers	CAK collects the cost-sharing requirements (not for every municipality) and pays them to the municipalities
Personal budget (Long-term Care Act or Wmo 2015)		Patient is assigned a budget (for home care by the municipality and for other long-term care by the CAK) and hires care independently	–	CAK establishes and collects cost-sharing requirements Social Insurance Bank (SVB) receives the money related to the personal budget and pays the provider hired by the patient
Uninsured care		Patient pays provider directly	Health insurer reimburses patient in the case of coverage by VHI	–

Source: Authors' compilation.

4. Physical and human resources

The structure of healthcare in the Netherlands comprises a dense network of premises, equipment and other physical resources. As compensation for investments is included in the tariffs, health institutions are fully responsible for carrying out their (re)constructions and for the purchase of equipment. No external approval of building plans applies, although the quality of premises is externally assessed every five years. Due to mergers, and to strengthen their market position, many hospitals nowadays operate from more than one location. In addition to general and university hospitals, day care clinics, called independent treatment centres (ZBCs), have become part of the acute hospital sector. These centres provide selective non-urgent treatments for admissions up to 24 hours. The number of acute beds per population in the Netherlands is below the European average. The average length of stay is slightly above the average of the countries belonging to the EU before 2004. The long-term care sector is experiencing a steady reduction of bed supply and an increasing overlap of functions between nursing homes and residential homes. The quality of long-term care facilities is a point of concern. Acute out-of-hours care is provided by a network of GP out-of-hours centres and hospital emergency departments for emergencies. Information technology plays an important role in the Dutch healthcare system, as it does in society in general. Most Dutch people would welcome the opportunity to contact providers through the internet, but this option is not yet widely offered. Coordination of ICT applications is growing and both users and providers of healthcare services increasingly see benefits. The number of healthcare professionals is growing more rapidly than the population in the Netherlands; there are no signs of quantitative shortages or oversupply, probably due to careful HR planning. To keep the health workforce qualitatively up to date, continuing education is developing towards more tailor-made individual professional development.

4.1 Physical resources

4.1.1 Capital stock and investments

Changes in healthcare real estate

Important changes in the healthcare system have had consequences for the production of care premises. Firstly, since 2008 the funding system for real estate for healthcare has changed from reimbursement of construction costs based on actual costs to a system in which these costs were integrated in the care tariffs. This means that healthcare institutions need to generate these financial resources themselves and that they carry the real estate risk. As a consequence it has become more difficult for care institutions to acquire bank loans.

To facilitate the financing of capital investments, members of the Foundation Health care Sector Guarantee Fund (*Stichting Waarborgfonds voor de Zorgsector*, WFZ) can make use of a guarantee from the WFZ. Participation in the WFZ is possible for healthcare providers that offer inpatient healthcare services. In practice, participants are hospitals, nursing homes, psychiatric hospitals, institutions for the disabled and care homes. With a WFZ guarantee, the interest on bank loans is 1% to 1.5% lower than without it.

As a consequence of the general trend of de-institutionalization, care is increasingly provided outside the traditional settings. Since 2013 a split between the functions of care and housing has become governmental policy. A physical split occurs if certain types of care can only be offered in the home situation of clients, while a financial split refers to situations where insured care can be provided at home or in an institution, but the housing component needs to be paid privately, which means that the patients need to rent the accommodation (Dutch Healthcare Authority, 2012). This policy has reduced the need for large-scale real estate and, especially where the financial split is concerned, has increased the demand for diversity. In the future it is likely that housing will become more and more the responsibility of the recipients of care services as it is no longer paid from the healthcare budget (van Elp, van Zaal & Zuidema, 2012).

Table 4.1 provides an overview of the healthcare real estate stock in the Netherlands. In square metres, the cure sector (hospitals and various medical practices) is the largest user with 45.7%, followed by the inpatient care institutions (30.5%) and the outpatient services (23.8%).

Table 4.1
Composition of the real estate in use in healthcare facilities (million m², 2010)

Cure		
– Hospitals	10.5	44.1%
– Medical and dental practices	4.7	19.8%
– Paramedical and other practices	8.6	36.1%
Total cure	***23.8***	100% (**45.7%**)
Care (inpatient)		
– Nursing homes	3.9	24.5%
– Homes for the elderly and others	7.8	49.1%
– Institutes for the mentally handicapped and psychiatry	3.0	18.9%
– Youth care and social support	1.2	7.5%
Total Care (inpatient)	***15.9***	100% (**30.5%**)
Care (outpatient, including home care)		
– Social services for the elderly and handicapped	2.1	16.9%
– Other social services	10.3	83.1%
Total Care (outpatient)	***12.4***	100% (**23.8%**)
TOTAL real estate used by care facilities	***52.1***	***100%***

Source: van Elp, van Zaal & Zuidema, 2012.

Despite the trends mentioned above, economic forecasting studies for the construction sector predict increasing investments in real estate until 2030, mainly resulting from demographic developments, income development and innovation. New real estate will be more flexible to use, as a result of integrated tariffs, and more tuned to the preferences of the users of services, as a result of the separated financing of care and housing. An uncertain factor is e-Health and domotica (home automation), which eventually may reduce the demand for institutional real estate in the healthcare sector (van Elp, van Zaal & Zuidema, 2012). In the short term, however, growth of new technological applications is not yet evident. The Annual Report 2014 of the Healthcare Sector Guarantee Fund (WFZ) reports that in 2014 there was again a decline in the investments of healthcare institutions (www.wfz.nl). This is likely to be influenced by the new mode of funding that has made it more difficult for these institutions to finance new construction plans.

Current capital stock

An account of the number of hospitals should distinguish between hospital locations and hospital organizations. After a merger, hospitals may continue as separate locations of one hospital organization. In 2014 throughout the country there were 131 hospital sites and 112 outpatient clinics, which were organized

into 77 hospital organizations and 8 academic hospital organizations. Since 2009 the number of hospital sites has remained stable but the number of outpatient clinics has strongly increased, from 61 to 112. More and more hospitals are opening outpatient clinics on the edge of their catchment area in order to better compete with surrounding hospitals. Furthermore, the supply of hospital care is increasingly differentiated. Merged hospitals may offer specific functions in a location, thus leaving some locations with more enhanced services than others. Care is also increasingly provided through outpatient and day treatment. In 2012 there were 1296 cases of day care per 10 000 inhabitants, which is 3.5 times more than in 1993 (www.zorgatlas.nl).

In addition to *general* hospitals, offering the full spectrum of hospital care, there are independent treatment centres (ZBCs) that provide selective non-acute treatments, covered by basic health insurance, for admissions shorter than 24 hours. Examples are cataract surgery or varicose veins surgery. In 2013 there were 214 of these independent treatment centres (Dutch Hospital Data, 2015). The growth of ZBCs since the beginning of the twenty-first century is related to the introduction of the DBC system by which these centres are paid, while hospitals were still mainly financed via the old functional budget system. ZBCs normally deal with less complicated care, whereas hospitals need to treat the whole spectrum of patients. The Health Care Institutions Admission Act (WTZi) does not legally distinguish between independent treatment centres and general hospitals. All these institutes are called "Medical Specialist Health Care Institutions" (Deuning, 2009).

Before 2010, the technical conditions and the functional quality of the buildings of general acute care hospitals were assessed by the Board for Health care Institutions (*College Bouw Zorginstellingen*, CBZ). After 2010 the Board lost these legal duties. At present, buildings belonging to healthcare institutions are subject to the general construction regulations as laid down in the Building Act (*Bouwbesluit*), the most recent version of which was issued in 2012. The Building Act is an extensive and complex piece of legislation, including detailed provisions on safety, health, usability, energy efficiency and environment (http://vrom.bouwbesluit.com/). The general supervision of the adequacy and quality of buildings related to the healthcare services that are provided in them lies with the Health Inspectorate (IGZ).

In 2014 the mental healthcare sector consisted of 114 institutions, 30 of which were integrated mental health institutions providing both inpatient and ambulatory mental healthcare. Between 2000 and 2004 the number of integrated mental health institutions increased from 33 to 41, but during

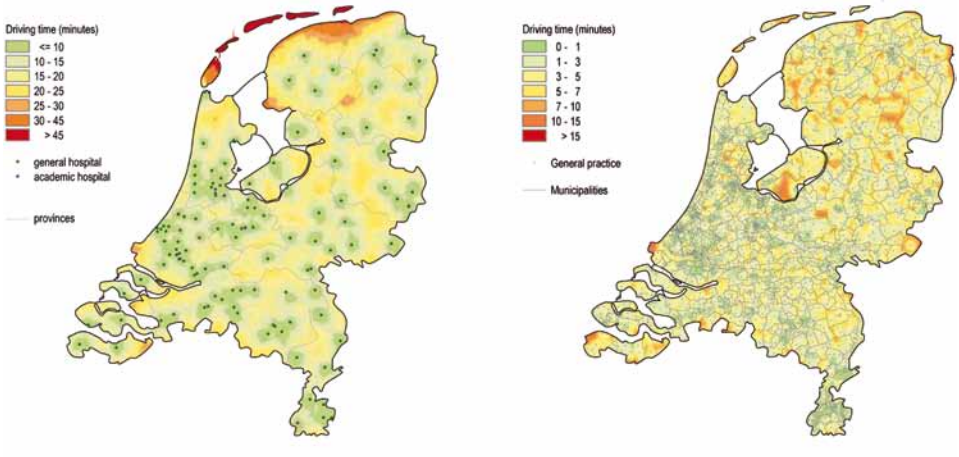
subsequent years mergers resulted in a decline in the numbers. Since 2008 the number has remained stable at around 30 institutions. The number of general mental hospitals decreased from 12 in 2000 to just two in 2014. Mainly as a result of mergers, the total number of institutes has decreased from 124 in the year 2000 to 90 in 2009, but then increased again to 114 in 2014 (Trimbos Institute, 2015). In 2012 the number of inpatient beds in the curative mental care sector (mental care covered by the Health Insurance Act) was 12 373. From 2010 onwards the number of inpatient beds for care under the Exceptional Medical Expenses Act (AWBZ) is unknown (Trimbos Institute, 2015).The long-term care sector consists of nursing homes and residential homes. In 2009 there were 479 nursing homes, 1131 residential homes and 290 institutions combining both types (National Institute for Public Health and the Environment, 2014a). Residential homes provide housing, care and support for those who cannot live independently, even with home care support. Nursing homes provide nursing and rehabilitation care to admitted patients (for example, psycho-geriatric and after stroke). As people in need of relatively low-intensity care will no longer be eligible for residential care, it is expected that the number of residential homes will decrease. Since 2015 the combination of housing and care is available only for persons in need of 24/7 supervision. Others who want to live in a residential home should rent the room themselves and purchase the care they need. For some residential homes this is a way to survive. In contrast, nursing home capacity is expected to increase as a result of ageing and a growing need for forms of intensive care.

Neither central planning nor central financing applies to healthcare institutions. Initiatives to build or renovate a building should be applied in line with the Health Care Institutions Admission Act (*Wet Toelating Zorginstellingen*), which specifies the requirements. For financing, a loan can be contracted with a commercial bank. Private investment in healthcare institutes is not yet allowed, except for institutes providing outpatient long-term care. An adjustment to the Health Care Institutions Admission Act (*Wet Toelating Zorginstellingen*) to facilitate private investments is currently (2015) under discussion. The amendment aims to allow private investment under strict conditions. No profit may be shared in the first three years after the investment is made, and after that period only upon a positive evaluation by an independent supervisory authority using predefined quality indicators, and when the financial reserves are approved. The Act was passed by the Parliament in 2014 and is now waiting to be discussed in the Senate.

4.1.2 Infrastructure

The high density of the general infrastructure in the Netherlands also applies to the healthcare sector. A numerous population in a small country is favourable for the development of dense networks of facilities. The two maps in Fig. 4.1 show this for primary care and hospitals. Travelling by car, a large majority of Dutch people can reach their GP practice within 7 minutes. On the mainland, practically all Dutch people are within 25 minutes' drive of a hospital (freestanding outpatient clinics are not taken into account). Outside office hours, a network of 122 GP out-of-hours centres (*Huisartsenpost*, HAP) are available. The average distance to a HAP is 6.2 kilometres. In case of emergency, 91 hospital locations offer 24/7 emergency services. More than 99% of the population can reach such an emergency department by ambulance within 45 minutes. For the population of the Frisian Islands in the north, a helicopter is available for emergencies (www.volksgezondheidenzorg.info).

Fig. 4.1
Travel time by car to nearest GP practice (left) and to nearest hospital (2012)
(outpatient clinics not included)



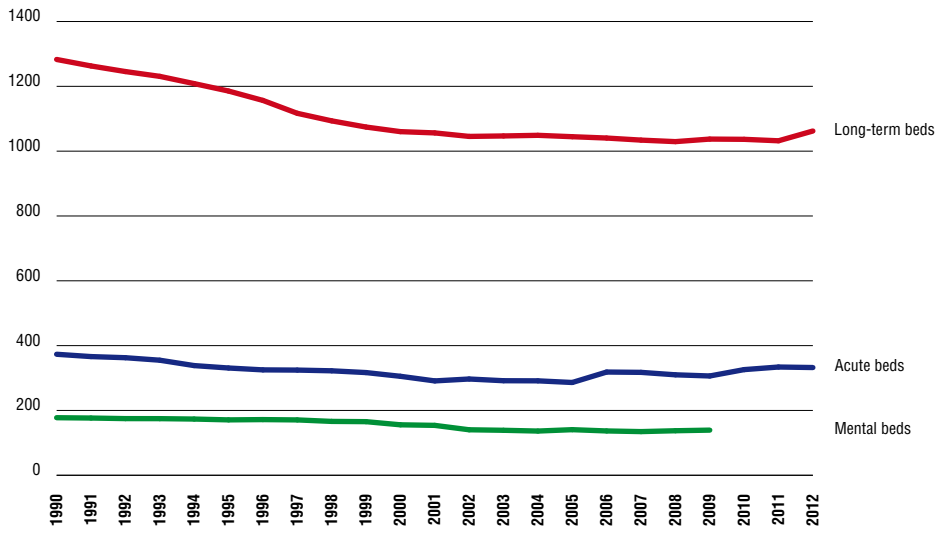
Source: www.volksgezondheidenzorg.nl.

In 2012 there were 332 acute beds and 1062 long-term care beds available per 100 000 inhabitants (see Fig. 4.2). In 2013 there were 1538 admissions to acute care hospitals per 100 000 population (Dutch Hospital Data, 2015). The average length of stay was 6.4 days and the bed occupancy rate was 46% (WHO

Regional Office for Europe, 2015). In 2013 the licensed number of beds in general acute care hospitals amounted to 35 698 and in academic hospitals to 7 613 (Dutch Hospital Data, 2015).

Fig. 4.2

Mix of hospital beds per 100 000 inhabitants in the Netherlands, 1990–2012



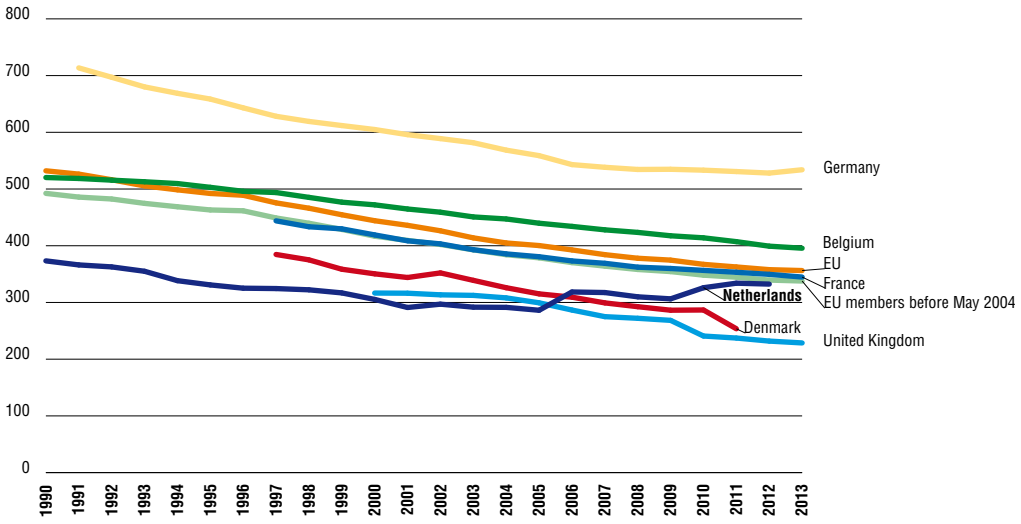
Source: WHO Regional Office for Europe, 2015.

As in most EU15 countries, the number of acute care beds in the Netherlands has gradually dropped, by around 18% between 1990 and 2009, from 373 to 306 per 100 000 population (WHO Regional Office for Europe, 2015). The decrease was driven by several factors. The need for cost-containment resulted in a more efficient use of hospital bed capacity, which was enabled by new technologies, such as laparoscopic surgery, which promoted day surgery. Furthermore, more treatments for chronically ill patients could be delivered in the patients' home situation. The decline in acute care beds up to 2009 was in line with the aim of the government to reduce bed supply to approximately 2 per 1000 inhabitants in 2015 (Board for Health Care Institutions, 2003). However, with the abolition of central planning for hospitals in 2008, central steering was no longer effective, and it was deemed no longer necessary as well. In the years after 2008 the number of beds increased again by 9%, up to 332 beds per 100 000 population in 2012. As Fig. 4.3a shows, the acute hospital bed supply in the Netherlands is still below the average in the EU15 countries, but it is the only country where

the number of acute beds is on the rise again. Between 1990 and 2012 the average number of acute beds in the EU countries before 2004 decreased from 532 per 100 000 population to 338.

Fig. 4.3a

Acute care hospital beds per 100 000 population, Netherlands and selected countries, 1990–2013



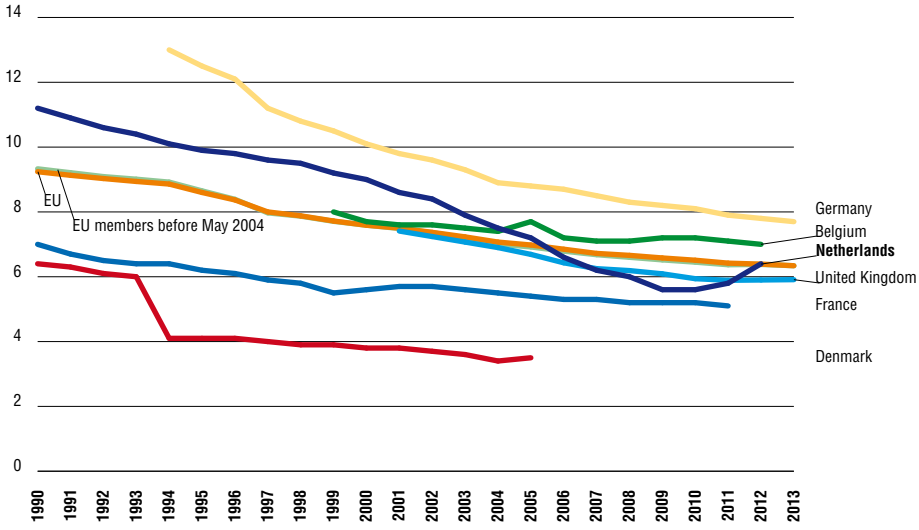
Source: WHO Regional Office for Europe, 2015.

Until 2005, and in recent years, the average length of hospital stay in the Netherlands has been above the EU15 average (see Fig. 4.3b). This could partly be attributed to the relatively long stay of patients who were on the waiting list for a long-term care institution. However, day care admissions are not included in the length-of-stay statistics. Including these figures would result in an average length of stay of four days. Apart from this, it can be expected that hospital stays will continue to decrease in the future. Variation in the length of stay between hospitals points to the possibility of further shortening the average admission period. Furthermore, it is likely that technology will increasingly enable services that are currently provided in hospitals to be transferred to the home situation.

Bed occupancy rates in the acute sector in the Netherlands have always been lower than in the other countries mentioned in Fig. 4.3c. The gap with the other countries is growing, and in 2013 it was more than 30% below the average of the EU15 countries.

Fig. 4.3b

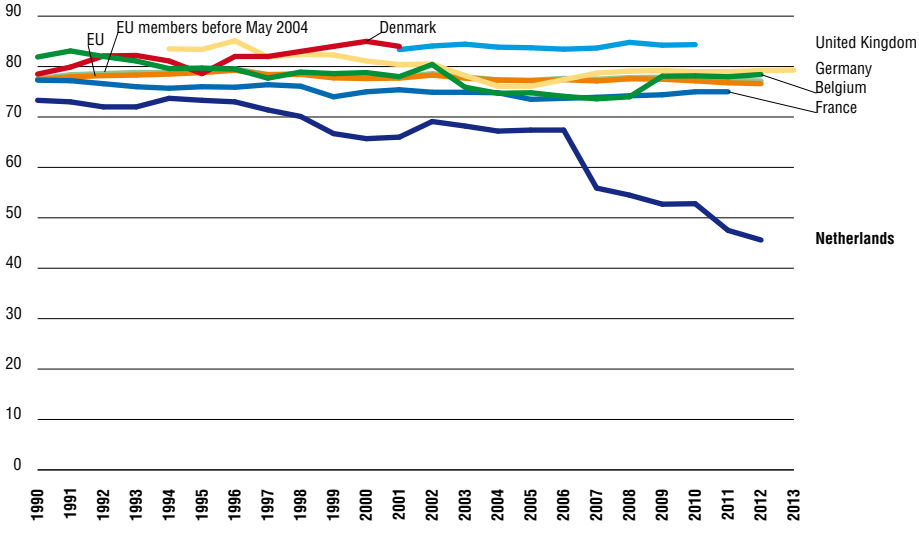
Length of stay in acute hospitals (days), Netherlands and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2015.

Fig. 4.3c

Acute bed occupancy rates (%), Netherlands and selected countries, 1990–2013



Source: WHO Regional Office for Europe, 2015.

4.1.3 Medical equipment

The planning, purchasing and maintenance of medical devices and aids are the responsibility of individual healthcare providers and institutions and there are no strict rules about it. Each general practice, for instance, must have equipment and instruments available tuned to the care the practice aims to supply (which many practices publish in a care policy plan), as well as to the "requirements of responsible care". The voluntary practice certification scheme of the Dutch College of GPs requires that practices maintain proper registration and administration of equipment and medical consumables, including a maintenance scheme. Around 55% of Dutch GP practices are currently certified (http://www.praktijkaccreditering.nl/sites/default/files/content/npa_nhg_org/).

An exploratory study on developments in the field of medical technology in the Netherlands showed some clinical research with new implants, such as wireless pacemakers. Results from clinical studies will have to prove whether these innovations are actually appropriate for broader application. Other developments are reported in the field of imaging equipment, such as equipment for making 3D-echoes, and cutting equipment for surgeons (National Institute for Public Health and the Environment, 2014b).

The availability and use of diagnostic imaging technologies are indicators for advanced medical equipment in hospitals. Table 4.2 shows the availability of MRI units, CT and PET scanners in Dutch hospitals in 2005 and 2013 and their intensity of use in 2013. Between 2005 and 2013 the number of PET scanners more than doubled from 24 to 54. The number of MRI units also strongly increased, by 80%, from 107 to 193. The increase of CT scanners amounted to 45%, from 134 to 194. If the population growth is taken into account, the availability increase percentages are slightly lower, but still considerable.

Table 4.2

Operational diagnostic imaging technologies (MRI units, CT scanners, PET scanners) per million population (2005 and 2013) and usage (2013)

Item	Number of devices		Per million population		Number of scans per device
	2005	2013	2005	2013	2013
MRI units	107	193	6.6	11.5	4 145
CT scanners	134	194	8.2	11.5	6 735
PET scanners	24	54	1.5	3.2	955

Sources: OECD, 2015; Dutch Hospitals Association, 2012; National Institute for Public Health and the Environment, 2014b; Bijwaard, 2011.

In an international comparison, the availability of MRI and CT units in the Netherlands is rather low. Compared to the EU15, the Netherlands had the lowest number of CT scanners per million population in 2013: 11.5 compared with 24.1 (OECD, 2015). The Netherlands also has relatively few MRI units (11.5 per million population compared with 14.9 on average in the EU15). Only France (9.4) and the United Kingdom (6.1) have fewer MRI units (OECD, 2015). In contrast, there are more PET scanners in the Netherlands (54, or 3.2 per million population) than in most other countries. Only in Denmark is the number larger (6.1 per million).

In the Netherlands in 2013 the available CT scanners produced 6735 scans per device per year. The usage of CT scans in neighbouring countries is most intensive in Belgium, with 13 281, and the least extensive in Germany, with 2849 scans per device per year. The usage of MRI scans in the Netherlands is 4145 scans per device per year, which is at the lower end of the scale compared with neighbouring countries. The UK, at the high end, produces 6893 scans per MRI device and Germany, at the low end, 1821 scans. There are no norms regarding the required number of these devices per population, but if there are too few, this may lead to access problems in terms of geographic proximity or waiting times. If there are too many, this may result in an overuse (OECD, 2012; OECD 2015b).

4.1.4 Information technology

The use of the internet

A major reason for the increased internet activity in the Netherlands is the broad availability of fast internet. In recent years the Netherlands has consistently scored in the top five countries in Europe in terms of fast broadband internet. Between 2005 and 2014 the proportion of households with internet access rose from 78% to 96%. In the same period the percentage of people using the internet every day has increased from 68% to 90%. Older people especially have caught up. In 2014 over three-quarters of internet users aged 65 to 75 were daily users of the internet; in 2005 this was 43%. The use of mobile internet access has also increased.

In 2014 households tended to have multiple devices with internet access. The laptop and smartphone became more important than the desktop PC. The proportion of households going online using a laptop has remained stable in recent years at around 80%. E-shopping is increasingly popular: between

2005 and 2014 the proportion of internet shoppers increased from 50% to 77%. Newspaper reading via the internet has increased in the same period from 35% to 59% (www.cbs.nl/).

ICT use by patients and care providers

Many people actively use the internet as a source of healthcare information, but they are not familiar with the online services that their doctors are offering (for example, e-consultations or e-appointments). Doctors in the Netherlands are doing well in international comparisons when it comes to the use of electronic healthcare records and healthcare information exchange (Krijgsman, Peeters & Burghouts., 2015).

All GPs in the Netherlands use an electronic GP information system to record medical data about their patients. The information system is used to manage the care process and for administration purposes. GP information systems are linked to the professional guidelines, which GPs can consult during a patient contact. To optimize the prescription of pharmaceuticals, the Electronic Prescription System (*Elektronisch Voorschrijf Systeem*, EVS) is integrated into the GP information system. The EVS provides GPs with advice on pharmacotherapy and related patient counselling. The introduction of the EVS has improved the quality of prescriptions and the use of electronic medical records and has resulted in a reduction of expenditure on medicines. Since the beginning of 2014 prescribers of medicines may only do so by using an Electronic Prescription System that includes a functionality to monitor unsafe situations.

e-Health policy development

In 2012 a number of stakeholder- and professional organizations took the initiative to work together to promote the development and use of eHealth. They agreed upon a National Implementation Agenda for eHealth, starting from the observation that there is no lack of innovative ideas and promising applications, but that already developed applications are rarely widely implemented. In 2013 this resulted in the eHealth Governance Covenant 2014–2019.

A governmental vision on eHealth, formulated in a letter to the Parliament in June 2012, acknowledged the chances and opportunities offered by eHealth, under the condition of absorption of eHealth by patients and care providers. It was therefore decided that developments and progress in the use of eHealth would be monitored annually.

The first monitoring study, in 2013, among care providers, care users and a number of stakeholders, identified four categories of eHealth:

- *searching for health information* by healthcare users (e.g internet use; mobile apps for digital self-tests; tracking health data; or participating in online discussion forums);
- *communication between user and care provider* (e.g. making appointments or asking questions of care givers; online access to medical files; tele-monitoring);
- *medical file management* by care givers (e.g. the electronic patient record); and
- *communication among care providers* (e.g. through electronic referral letters).

The report concluded that, although the healthcare field was fairly well computerized, the adoption of self-management applications remained a promise. Furthermore, patient safety and continuity of care should be prioritized (Krijgsman et al., 2013).

The 2015 monitoring study pointed to good developments (Krijgsman et al., 2015). More than a third of the GPs, half of the medical specialists and two-thirds of psychiatrists indicated that in the past year in their practice or institution an eHealth pilot project was done; most notably, the use of the application was continued after the pilot period in more than 70% of the cases. Among care recipients and informal care givers a growing need for eHealth applications appeared and more physicians acknowledged the benefits of eHealth. However, the use of online services among healthcare users was stagnating; still relatively few people seem to be aware of the online possibilities that their GP and other care providers offer. Another finding was that more people keep information about their health; care providers should better anticipate this in their contact with patients. The report recommended that eHealth should focus on the most promising services, including: online services for healthcare users (such as making appointments; access to health records); information exchange between healthcare providers; and e-care or distant care and dispensing for medicines.

4.2 Human resources

4.2.1 Health workforce trends

Almost 7% of the Dutch population, or well over 16% of the working population, is active in the healthcare sector; since the early 2000s the total number has grown by about one-fifth. Compared to other EU countries the relative number of nurses is around the average. Most numerous are nurses working in home care and in care for the elderly and disabled. Substitution and transfer of tasks from medical to nursing professionals is a relevant trend.

Medical education is provided at each of the eight Dutch universities, while nurses can be educated at an intermediate, higher or academic level, depending on the professional profile. The quality of healthcare professionals is safeguarded by obligatory registration and by licensing schemes maintained by professional associations.

Workforce forecasting and careful planning of educational capacity seeks to prevent shortages or oversupply of medical professionals. Skewed distribution of providers is not a major problem in the Netherlands, although in some areas, both in big cities and the countryside, additional efforts need to be made to match demand and supply of GP care.

The healthcare workforce consists of a wide variety of professions, as shown in Table 4.3, which presents numbers by job categories for the period 1990–2014 at five-year intervals. The table shows different trends among professions. The strongest growth is among midwives and nurses in elderly homes and nursing homes, physicians, psychiatrists and occupational therapists. Growth rates among other professions are smaller.

The traditional work settings and division of labour between medical professions has changed over the years. Professionals in primary care increasingly work in larger organizational settings (such as primary healthcare centres), where they are supported by allied staff and managers, and also increasingly work in multidisciplinary teams. Community pharmacists increasingly work in structured collaboration with GPs in their catchment area. These new modes of care provision require new skills and change the work arrangements. As a result of the transfer of tasks or substitution, new occupations exist, such as practice nurses, nurse practitioners, nurse-specialists and physician assistants.

Table 4.3

Health care personnel by category, and changes, 2000–2014

	2000	2005	2010	2014	Change from earliest to latest available year
Physicians					
General practitioners [1]	7 769	8 489	8 984	8 812	13%
Medical specialists [4]	14 717	16 249	19 210	21 726*	48%
Social physicians [4]	–	2 878	4 057	3 738*	30%
Nursing home physicians	–	1 265	1 475	1 491*	18%
Mental health home physicians	–	170	175	200*	18%
Dental specialists [4]	–	192	233	260*	35%
Other healthcare professionals					
Dentists	7 509****	8 146 [5]	8 881 [5]	8 854* [5]	18%
Pharmacists [6]	3 570	4 400	4 680	5 075*	42%
Midwives [3]	1 576	2 106	2 586	2 980	89%
Orthoptists	344****	329*****	–	252 [8]	–27%
Therapists					
Physiotherapists [2]	13 355	13 876	16 743	–	25%
Occupational therapists [3]	2 015	3 108**	3 511***	4 142	106%
Speech therapists	3 935****	4 322	–	4 822 [8]	23%
Dieticians	2 270****	2 387	–	3 381 [8]	49%
Dental hygienists [5]	–	2 072	2 425	3 216*	55%
Remedial therapists (Cesar/Mensendieck) [3]	–	–	–	1 661	–
Podiatrists	408****	468	–	–	15%
Nurses, employed in:	–	–	–	–	
Hospitals	77 037****	82 115	103 000 [9]	–	34%
Mental healthcare	24 964****	24 100	29 000 [9]	–	16%
Disabled healthcare	140 141****	110 405	–	–	–21%
Elderly care					
Elderly care (total)	250 157****	287 539	–	–	15%
Elderly care: nursing homes	65 479****	64 151	–	–	–2%
Elderly care: homes for the elderly	52 819****	69 177	–	–	31%
Elderly care: home care	131 860****	154 211	161 400 [7]	–	22%

Notes: * 2013, ** 2006, *** 2011, **** 2001, ***** 2004.

(1) NIVEL Health occupations registration (excluding GP locums); (2) NIVEL Health occupations registration (excluding physiotherapists working in specialized care organizations, i.e. hospitals, revalidation centres); (3) NIVEL Health occupations registration; (4) Advisory Committee of Medical Manpower Planning (registered individuals); (5) Estimated by NIVEL, based on registration and survey data; (6) Statistics Netherlands, 2015a; (7) Arbeid in Zorg en Welzijn, 2014, Integrerend Jaarapport, p. 20; number of job positions in 2012; (8) Number registered in the Kwaliteitsregister, as of December 2015; (9) Estimations by NIVEL based on Arbeid in Zorg en Welzijn data (van der Velden et al., 2011, p. 47).

Geographical inequalities of healthcare labour supply are minor in a small country such as the Netherlands. However, regional differences in demographic development have an increasing impact on the demand for health services.

Some regions, such as the southern part of the Limburg province, are ageing more rapidly than others and face a decline in population. Other changes are in the composition of the populations of larger cities, in particular the rising share of foreign-born citizens and single households. These developments are leading to a growing geographical variation in the demand for health services, to which the workforce must adapt.

Community pharmacists are evenly spread over the country. In rural areas where pharmacies are absent, dispensing GPs take over their role. The increase of pharmacists in the Netherlands has kept pace with the increase of the population. The number of pharmacists per 1000 inhabitants has been stable over time. Most pharmacists are male, but this is likely to change, as a growing majority of pharmacy students are female.

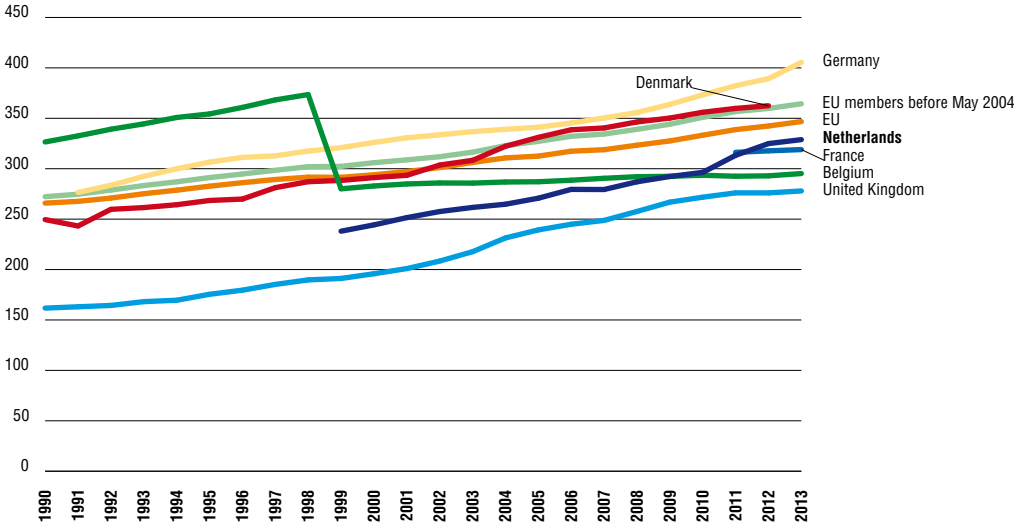
Since the mid-2000s years foreign-educated physicians and nurses have been able to enter the health labour market. Citizens of countries belonging to the European Economic Area (EEA) can benefit from the mutual recognition of professional qualifications (Directive 93/16/EEC and Directive 2005/36/EC). No information is available on the exact numbers of foreign-educated health professionals. It is estimated that of the 5800 new medical specialists who were registered in the Netherlands in the period 2000–2006, around 960 (17%) hold a foreign medical diploma. The foreign inflow was by far the highest among anaesthesiology; 44% of 565 new anaesthesiologists were trained abroad (Capacity Body, 2008). Among GPs, it has been estimated that about 10% were trained outside the Netherlands. It should be noted, however, that half of these are Dutch medical students who completed their GP training in the Dutch-speaking part of Belgium. With regard to the nurse workforce, the inflow of foreign-trained nurses has been low. This may be caused by the fact that many EU countries suffer from shortages, which makes recruiting nurses from abroad more difficult (OECD, 2008).

Figs 4.4 and 4.5 show that the numbers of physicians and nurses per 100 000 population has grown rapidly since 1990. The physician density in the Netherlands used to be relatively low compared to other EU countries, but it is now nearing the EU average.

Available data (until 2008) show that nurse density in the Netherlands is at the EU average, but lower than in the surrounding countries (see Fig. 4.5). An overview of the density of physicians and nurses in the Member States of the WHO European Region, provided in Fig. 4.6, shows the very large variation in the availability of nurses, particularly among countries in Western Europe. The Netherlands has an intermediate position.

Fig. 4.4

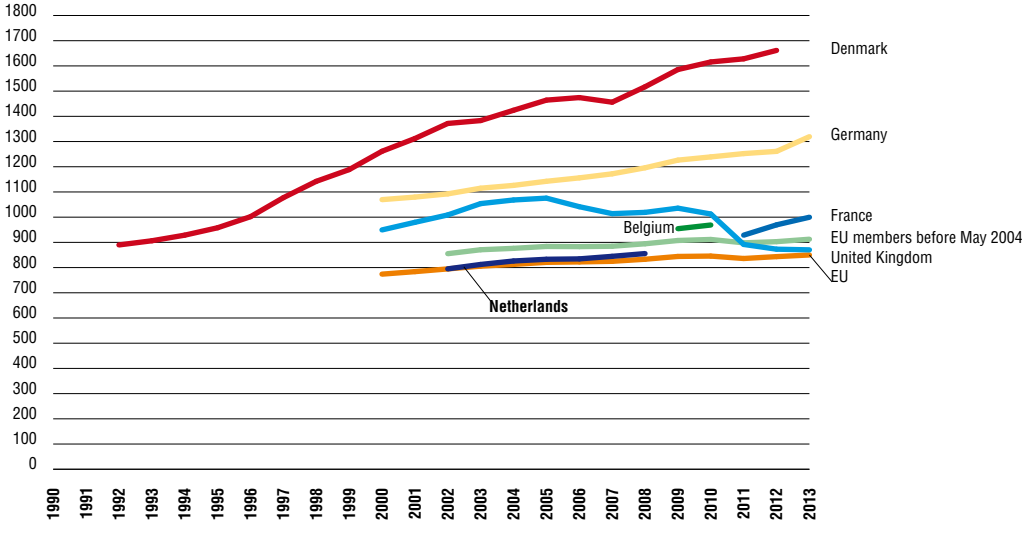
Number of physicians per 100 000 population in the Netherlands and selected countries, 1990 to 2013



Source: WHO Regional Office for Europe, 2015.

Fig. 4.5

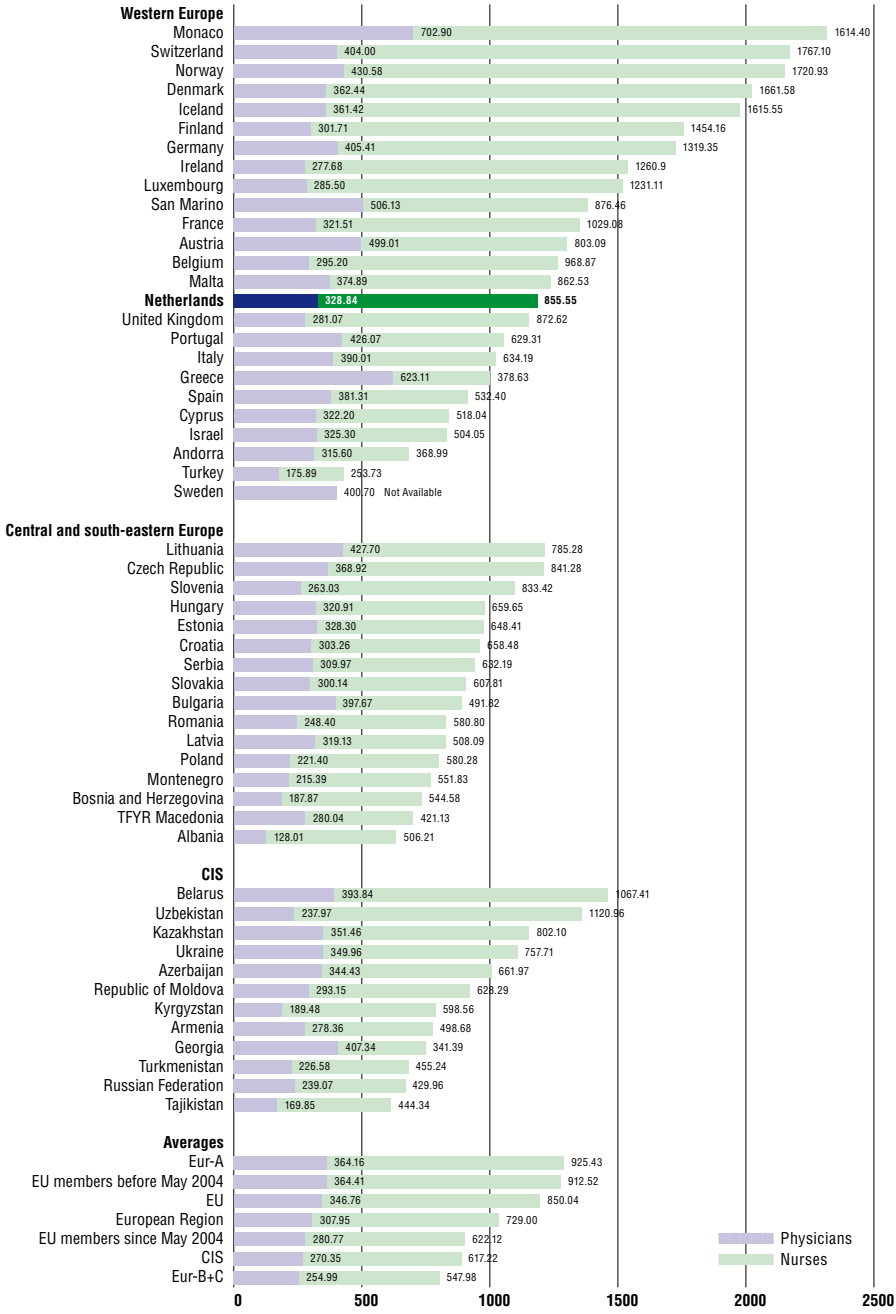
Number of nurses per 100 000 population in the Netherlands and selected countries, 1990 to 2013



Source: WHO Regional Office for Europe, 2015.

Fig. 4.6

Number of physicians and nurses per 100 000 population in the WHO European Region, latest available year



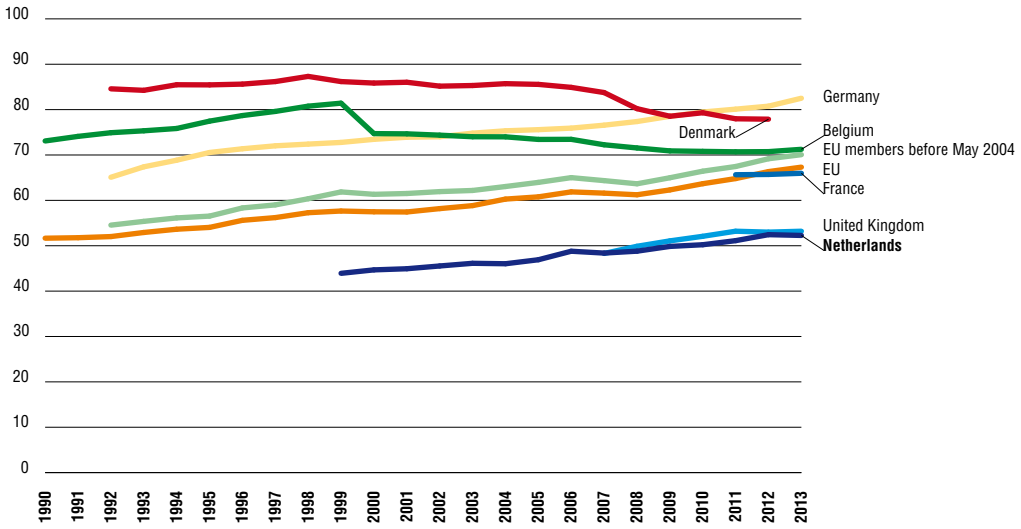
Source: WHO Regional Office for Europe, 2015.

Note: TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Together with the United Kingdom, the Netherlands has relatively few dentists per 100 000 population. The number is growing but not faster than the EU average (see Fig. 4.7).

Fig. 4.7

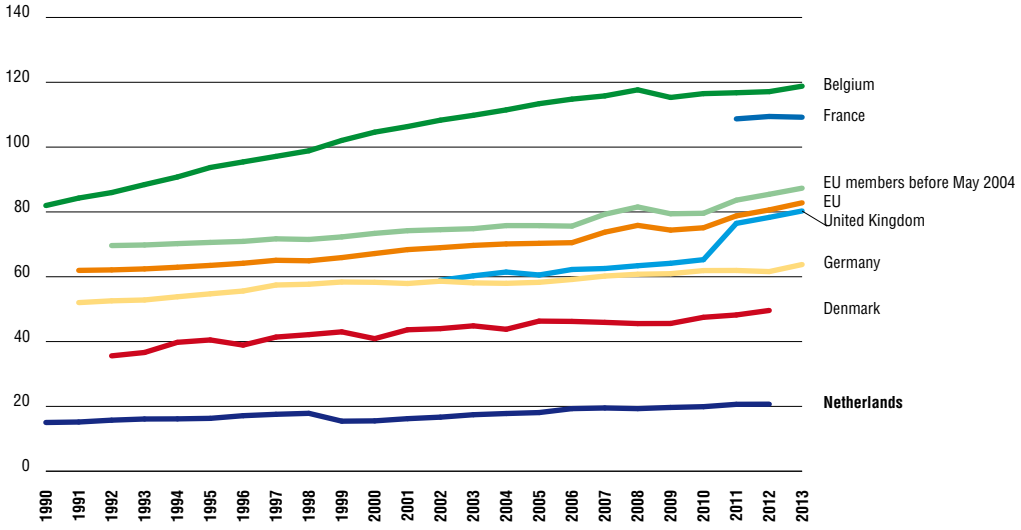
Number of dentists per 100 000 population in the Netherlands and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2015.

In the supply of pharmacists the Netherlands is an outlier (see Fig. 4.8). The number of pharmacists per 100 000 population is way below the number in the surrounding countries, as well as the average in the EU, and the number has only been growing slowly over the past decades. Neighbouring Belgium has a six-fold supply of pharmacists compared to the Netherlands.

Fig. 4.8
Number of pharmacists per 100 000 population in the Netherlands and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2015.

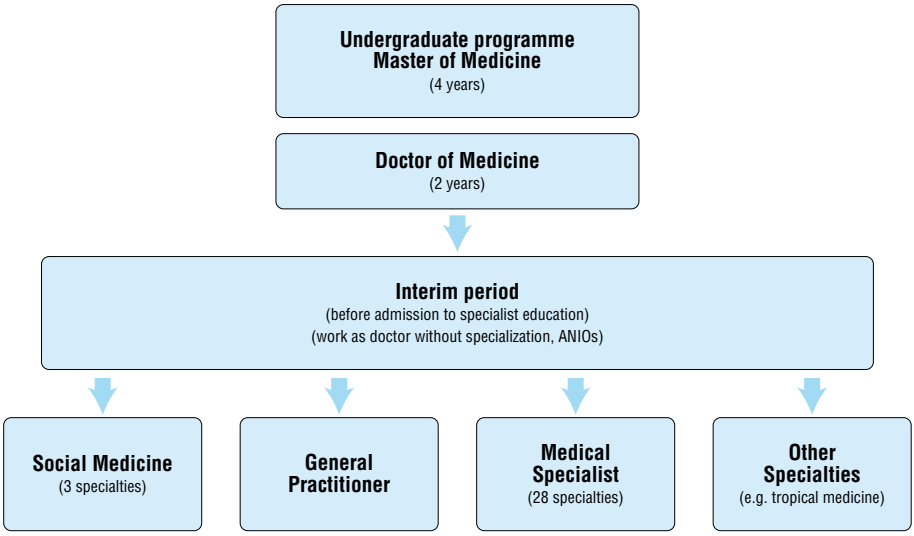
4.2.2 Training of health workers

Physician education and training

The establishment of the Royal Dutch Medical Association (KNMG) in 1849 was the starting point for the reorganization of medical education. The Medical Practice Act (*Wet op de Uitoefening van de Geneeskunst*, WUG) of 1865 provided uniform university education and improved legal protection for the profession and title. The Dutch medical educational system is depicted in Fig. 4.9.

Undergraduate medical education is structured into two phases (see Fig. 4.9). The *first phase* provides education for a Master's degree and includes two stages. The first year constitutes the first stage, the senior years (second to fourth year) the second stage. Both stages conclude with exams. The *second phase* of the study takes two years (the fifth and sixth) and concludes with the Doctor of Medicine examination. During the second phase students are introduced to a clinical setting.

Fig. 4.9
Schematic representation of the Dutch medical educational system

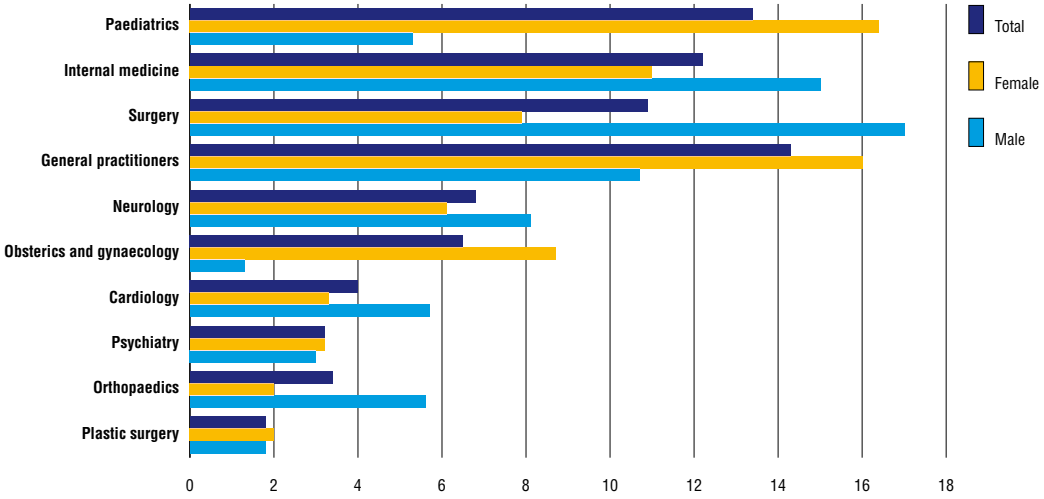


Source: Authors' compilation.

In the Netherlands medical education is provided at eight universities. Those who pass their Doctor of Medicine examination are legally qualified to prescribe medicines and provide medical certificates but they are not allowed to work as a GP or in any other medical specialty. Over 60% of graduates in medicine enrol in a specialized postgraduate training programme. As training positions for most specialties are scarce, graduates often need to fill in time before they can start. Most graduates spend this interim period working as a "doctor without a specialization" (ANIOs).

Preferences for specialization differ between medical specialties and according to the gender of medical students. As Fig. 4.10 shows, most medical student would like to become a paediatrician, followed by a GP. These two choices are particularly popular among female students. Internal medicine and surgery are also frequently preferred, but more by male than female students. Obstetrics and gynaecology is a typical choice of female students (Vergouw, Heiligers & Batenburg, 2014).

Fig. 4.10
Specialization preferences of medical students



Source: Vergouw, Heiligers & Batenburg, 2014.

Committees (*consilia*) within each of the 28 medical specialties are responsible for the content and requirements of the training programme. Education is provided in university hospitals and some general teaching hospitals. Except for social medicine, postgraduate programmes take three or more years. The postgraduate programme in family medicine, to become a GP, takes three years and consists of a theoretical and a practical part. About 20% of medical graduates choose this specialization. Social medicine has three specialties that take a minimum of two years to complete. This specialty is chosen by about 6% of medical graduates. Other specializations take at least four years.

A major requirement for re-registration has traditionally been participation in Continuous Medical Education (CME). With more rapid developments in medicine, the focus is now increasingly put on continuous structured acquisition of new knowledge, skills and attitudes in order to maintain and even improve competence. This is called "Continuous Professional Development" (CPD).

Competence-based training, which takes a CPD approach, is a relatively new aspect of Dutch medical education. It includes a revision of the traditional master-fellow relationship between student and professional and aims to improve the non-technical skills of physicians. The Central College of Medical

Specialists (*Centraal College Medische Specialismen*, CCMS) is responsible for the national roll-out of competence-based training for all specialties in the Netherlands.

Requirements for re-registration have become more diverse. As of 1 January 2009, re-registration criteria for GPs have been extended to include 40 hours of training per year, at least 10 hours of peer review activities and participation in a visitation programme. For other medical specialists participation in visitation programmes has been required since the early 2000s.

Nurse education and training

Nursing staff in the Netherlands include Registered Nurses (RNs) and Certified Nursing Assistants (CNAs). Dutch RNs comprise nursing staff of two educational levels: (1) educated to associate degree level (3–3.5 years of basic nursing education in a regional educational centre) and (2) educated to bachelor's degree (4 years of basic nursing education at a university of applied sciences). RNs are trained for a broad set of nursing tasks and after graduation they can work in various care settings. RNs with a bachelor degree in nursing have the option to continue their education and become a nurse specialist by following a Master programme in Advanced Nursing Practice (NP) (www.nursing.nl/; Francke et al., 2015).

CNAs have completed practice-oriented nursing education in a regional education centre, taking three years. Compared to other countries, the Dutch CNA education is rather lengthy, and after graduation they often work in home care or nursing homes.

Currently, there is a trend in the Netherlands to increase the number of RNs at bachelor level at the expense of the RNs educated at associate degree level. In the mental healthcare sector this change has specifically been fed by the general de-institutionalization of mental care services, which requires more independently working nurses. In home care this change is related to the fact that RNs have additional tasks, for example regarding needs assessment, disease prevention and self-management support.

In line with these developments, the nursing curriculum for bachelor educated RNs was redeveloped in 2015. From September 2016 the new curriculum is expected to be effective in most universities for applied sciences (www.nursing.nl/).

Continuing education for nurses often takes place on the initiative of the healthcare institutions where nurses are employed. The national association of Nurses and Carers in the Netherlands (V&VN) has developed a "Quality

Register for Nurses" (*Kwaliteitsregister*). On a voluntary basis, nursing staff can record their training and professional development activities online in the quality register, which offers individuals the chance to compare their skills with professionally agreed standards of competence.

4.2.3 Career pathways of physicians and nurses

For most medical specialties, several years of hospital experience after graduation are required to obtain access to specialization. In the case of a specialist working in a partnership, internal clinical staff admissions for specialization are jointly decided by all colleagues of a partnership. In the case of a specialist employed by a hospital, it is decided by the management. In contrast to the situation of medical specialists, admission to a postgraduate training programme in Family Medicine has better prospects for a position as a GP. After successfully completing the three-year vocational training programme, GPs normally engage in an application procedure for a position. In many cases, after having established themselves, GPs tend to stay there. Mobility among GPs working on a contract basis (mostly women) is higher than among self-employed GPs. In general, Dutch GPs and medical specialists rarely leave medicine.

Career pathways for nurses are related to their level of education. As described earlier, follow-up courses of study exist for nurses leading to higher positions in healthcare organizations. Specialist nurse training is aimed at obtaining additional competences and qualifications that cannot be obtained from clinical experience. Registered nurses, regardless of their educational background, are entitled to take specialist training courses. The recognized specialist nurse training is aimed at a specific patient category, for example intensive care, children, neonates and cardiac care patients.

5. Provision of services

In the Dutch healthcare system, private healthcare providers and health insurers are primarily responsible for the provision of services. Health care can be mainly divided into preventive care, primary care, secondary care and long-term care. Preventive care is mainly provided by public health services. The GP is the central figure in primary care. The gatekeeping principle is one of the main characteristics of the Dutch system and means that hospital care and specialist care (except emergency care) are only accessible upon referral from the GP. After receiving a referral, patients can choose in which hospital they want to be treated, but reimbursement may depend on the type of health policy they have. Long-term care is mainly provided by nursing homes, residential homes and home care organizations. Extra attention in Dutch healthcare is nowadays paid to integrated care for chronic diseases, care for people with multi-morbidities and the shift of care to lower levels of specialization: from hospital care to GP care to practice nurse to self-care.

In the majority of cases, the first point of contact for people with a medical complaint will be their GP. The GP has a central role in the healthcare system and acts as gatekeeper of the system. This means that for "prescription-only medicines" or medical specialist care a prescription or referral from a GP is required. Other physicians who are directly accessible are nursing home doctors (for those living in a nursing home) and occupational physicians. These physicians are also allowed to refer to medical specialists and to prescribe medication. However, occupational physicians very rarely prescribe medication and not all health insurers will accept their prescriptions. For specific problems, patients can also directly access allied health professionals, such as physiotherapists and remedial therapists. However, these professionals are not qualified to prescribe medication or to refer patients to secondary care. Two other directly accessible primary care professionals are midwives and dentists.

These professions are also qualified to refer patients to some forms of secondary care, such as gynaecologists in the case of midwives and dental surgeons in the case of dentists.

5.1 Public health

Disease prevention, health promotion and health protection fall under the responsibility of the municipalities. These tasks are specified in the Public Health Act (*Wet publieke gezondheid*, Wpg) and include (as of 2015):

- preventive youth healthcare (child health centres and preventive care at school)
- environmental health
- socio-medical advice
- periodic sanitary inspections
- public health for asylum seekers (such as tuberculosis screening)
- preventive screening
- epidemiology
- health education
- vaccinations
- preventive community mental health.

Municipalities have to create municipal health services (*gemeentelijke geneeskundig dienst*, GGD) to provide and coordinate the tasks described above. Municipalities are allowed to organize such services together with other municipalities. Currently there are 25 municipal health services, which include (since 2014) the regional medical aid organizations (*Geneeskundige hulpverleningsorganisaties*, GHORs). These latter organizations are responsible for the coordination of care in the event of large accidents or disasters.

Two areas of public health services that cover important aspects of the healthcare system will be described in detail: youth healthcare and preventive screenings and vaccinations.

5.1.1 Prevention, screening and vaccination for children

Youth healthcare under the Public Health Act provides preventive care for all children aged between 0 and 19 years. Youth care that is targeted to special groups of children or to children individually is covered under the Youth Act and is the responsibility of municipalities.

The heel prick for neonates, testing for severe, rare but curable diseases, is normally performed at home by a midwife or someone from the municipal health service or someone from a home care organization. Children born in the hospital receive the prick there. The heel prick test covers, inter alia, phenylketonuria, congenital adrenal hyperplasia, and congenital hypothyroidism. In 2007 the coverage of the heel prick was extended to screen for 17 diseases. Recently (2015) the Minister of Health, following advice from the Health Council, extended the list with 14 more diseases, and it now covers 32 diseases. In 2012, 99.5% of neonates underwent a heel prick test (Ministry of Health, Welfare and Sport, 2015e).

Until the age of 4, children visit child health centres (*consultatiebureaus*) for check-ups. The child health centres also provide medical and parenting advice. The most important tasks of preventive healthcare for children are: the monitoring of growth and development; early detection of health problems (or risks) or social problems; screening and vaccination; and providing advice and information concerning health. This care is provided by specialized physicians and nurses. When treatment is necessary, the child health centre will refer the child to other primary healthcare providers, mostly GPs.

The child health centres are frequently used; almost all children have more than one contact in their first four years of life. Table 5.1 shows the percentage of children per age category who attend a child health centre, as reported by their parents. After a child's fifth birthday, the preventive check-ups are taken over by school doctors. School doctors check all children at the age of 5, 10 and 13 years.

Children below the age of 4 receive vaccinations included in the National Immunization Programme (*Rijksvaccinatieprogramma*, RVP) at the child health centre for immunization. At school age, vaccination is organized by the Municipal Health Centres. Participation in most health protection programmes is high compared to many other countries. In 2015 the national average vaccination percentages for each vaccine in the National Immunization Programme were 94–96% for babies (including vaccinations against diphtheria, tetanus, polio, haemophilus influenzae type b, measles, mumps, rubella,

meningitis and pneumococci), 91% for toddlers (diphtheria, tetanus and polio revaccination) and 93% for schoolchildren (second revaccination for diphtheria, tetanus and polio, and revaccination for measles, mumps and rubella) (van Lier et al., 2015). The participation rate is below the aim of 95% set by the World Health Organization to eliminate measles worldwide. Such a high vaccination rate is important to protect the general population against outbreaks (herd immunity). There are two groups who refuse vaccination because of their philosophy of life: orthodox Protestants and anthroposophists. The last outbreak of measles was in 2013, mainly among orthodox Protestant children, who live geographically concentrated in the middle of the Netherlands. The last polio outbreak was in 1992–1993, also mainly among orthodox Protestant children. In 2009 the human papilloma virus (HPV) vaccine was added to the National Immunization Programme. The target group of the HPV-campaign consists of girls of the age of 13. In this group vaccine uptake was 61% in 2015 (van Lier et al., 2015). The low uptake was, inter alia, the result of negative attention in the media for this vaccination. According to critics, it was insufficiently tested, the working was not yet proofed and it could cause severe disease and even death. The National Institute for Public Health and the Environment (RIVM) claimed that the vaccination was safe (National Institute for Public Health and the Environment, 2015d).

Youth mental care and help with parenting became the responsibility of municipalities in 2015. Most municipalities have created youth care teams that coordinate and provide community-based care. Other types of youth care that have become the responsibility of municipalities include youth protection, juvenile rehabilitation, youth care in closed facilities and care for children with mild mental disabilities. Previously, these types of care were the responsibility of the provinces.

About 10% of Dutch children receive some form of ambulatory mental care. About 1% are admitted to an inpatient setting such as foster care, mental care institutes or institutes for care for disabled children. About 4% of the children are placed under the supervision of youth care (with limited or no say of their parents), have been reported by the bureau for child abuse, reside under juvenile probation or live in a closed institution (Statistics Netherlands, 2015a).

5.1.2 Screenings and vaccinations for adults

Influenza vaccination is provided yearly by GPs, who send invitations to the eligible population. Most GPs have special influenza vaccination hours. Eligible are all persons aged 60 and over and all persons at high risk of complications

due to influenza as a result of their medical condition. Influenza vaccine uptake has been falling recently, from 72% in 2008 to 53% in 2014 (Sloot et al., 2015). In the Netherlands adults are not vaccinated against pneumococcal infections.

The population-based screening programmes are coordinated by five regional screening organizations. They organize the invitations to come to the screening, and in the case of breast cancer screening and colon cancer screening also perform the screening. Colon cancer screening, for men and women aged 55 to 75 years, will be introduced in phases between 2014 and 2019. The reason for the gradual introduction is the need to educate sufficient care providers who can perform the follow-up examination (the colonoscopy). Screening takes place every two years. Eligible persons receive a self-sampling test-kit and a stool sample is tested for the presence of blood. If the result is positive, people receive an invitation for a follow-up examination. In the first year (2014) 81% of the invited population participated (Erasmus Medical Centre & Antoni van Leeuwenhoek Cancer Institute, 2015). Cervical cancer screening is performed by GPs. The screening for cervical cancer had a turnout of 65% in 2013 (National Institute for Public Health and the Environment, 2015a). There seems to have been a small decline in coverage since 2006 when 67% of eligible women participated in the screening programme (Ministry of Health, Welfare and Sport, 2015e). Dutch women between the ages of 30 and 60 years are called up for a smear test once every five years. The attendance rate for cervical screening is average compared to the other EU15 countries (65% in 2013) (Eurostat, 2015a). Breast cancer screening takes place every two years for women between the ages of 50 and 75. Participation in breast cancer screening is also high at 80% (National Institute for Public Health and the Environment, 2015a), but is showing a slight decrease since 2007, when coverage was 83%. The coverage is still above the average of the EU15 countries (70.5% in 2013) (Eurostat, 2015a). In 2016 the screening will change and women will be tested for the presence of the HPV virus. If this virus is absent, the interval for screening can be longer than five years. If the HPV virus is present, the cervical smear will be tested upon deviating cells and screening intervals will remain five years. In 2016 a self-test will also be introduced for women who have problems with a cervical smear test by their GP.

Table 5.1
Overview of screening and vaccination programmes

Screening/vaccination	Location	Eligible population	Percentage of eligible population who participate, latest year available*
Children			
Heel prick	At home (by midwife or municipal health service)	Newborns	99.5%
Health check-ups for children	Child health centres	Children aged 0–4 years	98.9% of 0 year olds 99.2% of 1 year olds 96.7% of 2 year olds 93.5% of 3 year olds 85.2% of 4 year olds
Child vaccination programme	Child health centres (0–4 years), Municipal health services (schoolchildren)	Children aged 0–12 years	94–96% of babies 91% of toddlers 93% of schoolchildren 61% of 13 year olds (HPV vaccination)
Health check-ups for schoolchildren	Schools (organized by municipal health services)	Children aged 5, 10 and 13 years	90%
Adults			
Influenza vaccination	GP practice	Persons aged 60+ years and persons with chronic conditions	53%
Cervical cancer screening	GP practice	Women aged 30–60 years	65%
Breast cancer screening	Mobile units of the regional screening organizations	Women aged 50–75 years	80%
Colon cancer screening	At home, self-sampling set	55–75 years old	81%

Sources: * for year and source: see Section 5.1 Public Health.

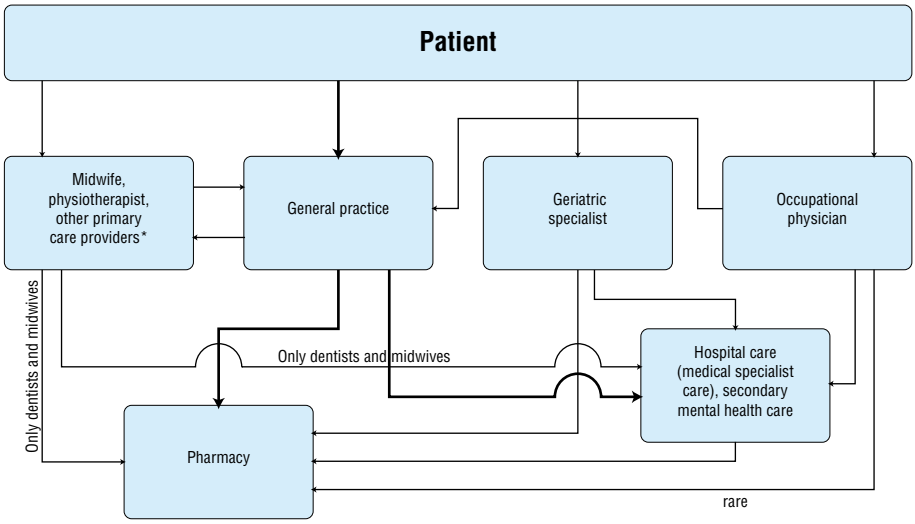
5.2 Patient pathways

In most cases the first contact with the healthcare system takes place after a medical problem occurs. Which healthcare provider the patient consults, and which path the patient follows through the healthcare system will depend on the type and severity of the complaint.

Fig. 5.1 shows the pathways of patients in curative, non-emergency care. The bold arrows represent the pathways that the majority of patients follow; first they contact their GP who treats the patient, describes medication or refers to a secondary care provider, or a combination of these possible actions. Box 5.1 describes in more detail an example of a specific case: a patient who needs a hip replacement.

Fig. 5.1

Flow chart for patient pathways in regular, non-emergency curative care



Source: Adapted from Schäfer et al., 2010.

Notes: Bold arrows = largest patient flows. * For basic mental care a referral from the GP is required (see Section 5.11).

Box 5.1

Patient pathway example: a woman in need of a hip replacement

A woman in need of a hip replacement due to arthritis would take the following steps:

- During a visit to the GP with whom she is registered, the GP refers her to a hospital orthopaedic department.
- She has free access to any hospital, although reimbursement may be limited if she has an in-kind policy and the insurer has no contract with the hospital of her choice. On a web site (www.kiesbeter.nl), run by a government agency, she can compare hospitals on the basis of quality indicators, such as the department's experience, risk of infection, and cooperation and coordination among care providers. Hospitals are required to publish waiting times on their web sites. For waiting times, providers, insurers and patient associations have agreed on maximum waiting times. For a first visit to medical specialist care, a maximum waiting time of four weeks was agreed. On average, orthopaedic departments in the Netherlands comply with that rule (Dutch Healthcare Authority, 2015c) In practice, only a few patients actually compare hospitals on a web site. Often the GP recommends a certain hospital or she goes to the nearest hospital.
- Her GP or specialist prescribes any necessary medication.
- After referral, the patient may have to wait for an outpatient hospital appointment for examination by a specialist.
- After this she will have to wait for inpatient admission and surgery.

- Following surgery and primary rehabilitation at the hospital, the patient goes home, where she might need home care (home nurse and/or home assistance). For home nursing tasks, the district nurse will assess her needs. For home assistance, the municipality is responsible for setting the needs assessment. The municipality will firstly evaluate the options for help from the social network of the applicant and then will decide whether additional professional help is needed. Such an assessment is popularly called a "kitchen table dialogue" (*keukentafelgesprek*).
- The GP receives a discharge summary from the hospital and is responsible for further follow-up. The GP can refer the patient to a physiotherapist or she can go to a physiotherapist without referral.
- After approximately six weeks, a follow-up hospital visit takes place.

In the case of emergency care, patients can contact their GP or GP out-of-hours service. The patient can also go directly to the emergency ward, but this is not the preferred route. The pathways of patients for emergency care are shown in Section 5.5. An example of a man with acute appendicitis is provided in Box 5.2.

Box 5.2

Emergency care pathway for a man with acute appendicitis

A man with acute appendicitis on a Sunday morning would take the following steps:

- The patient (or someone else) calls the GP out-of-hours services. His call will be answered by a triage assistant. The assistant decides, possibly after consulting a GP, that the patient should come for further investigation (note that a diagnosis is not made yet).
- The patient arrives at the GP post. The GP diagnoses acute appendicitis and refers the patient to the emergency ward. Increasingly, GP out-of-hours services are located in hospitals next to the emergency ward.
- At the emergency ward, a specialized nurse performs triage and estimates the urgency of the complaint. The waiting time depends on the urgency.
- A surgeon performs surgery on the patient.

Another possibility is that the man goes directly to the emergency ward, without consulting a GP. Around 60% of the patients of emergency departments come without referral. However, the preferred route is via the GP out-of-hours services.

As a result of the ageing population, there is an increasing number of patients with multiple chronic conditions. The coordination of care for these persons is important; how this is achieved is described in Box 5.3.

Box 5.3

Pathway of a patient with multiple chronic diseases

- The patient consults his general practitioner (GP) on a regular basis for monitoring his health, and for treatment and management of the chronic diseases.
- Depending on the complexity of the diseases, other healthcare professionals in primary and/or secondary care will be involved in providing care (district nurse, physical therapist, occupational therapist, medical specialist).
- The responsibility for coordinating the care between healthcare providers is with the patient's general practitioner. However, when most care is provided by a medical specialist, coordination of care will be provided from secondary care.
- If the patient has diabetes mellitus, chronic obstructive pulmonary disease or cardiovascular disease, care will be provided according to a nationally agreed protocol ("care standard"). Usually, a primary care nurse will be involved in providing care. Discrepancies between protocols for separate diseases will be identified and discussed by the GP with the patient (after consultation with a medical specialist, if necessary).
- Periodically the patient's medication will be reviewed by the pharmacist and the GP.
- If the provision and coordination of care becomes too complex (for example, due to multiple care providers, contradictions in protocols, treatment interactions and/or insufficient coping abilities of the patient), a case manager will be appointed to support and guide the patient and his informal carers in care management. The case manager is usually a primary healthcare nurse.
- Increasingly, individual care plans are used, both by care professionals and by patients (including informal carers), which include priorities in treatment, management goals and self-management activities. These care plans are periodically discussed with the patient and updated.
- Depending on the progress of diseases, the occurrence of complications, and prognosis and life expectancy, the treatment and management goals will shift from controlling diseases to increasing or maintaining the patient's functional status and quality of life.

Integrated care

Due to the growing numbers of older citizens and people diagnosed with chronic diseases, integrated care has gained the attention of policy-makers and care providers. Integrated care is proactive, multidisciplinary and well coordinated care that is tailored to the individual patient's needs, priorities and preferences. Integrated care approaches in the Netherlands target two main groups: (1) people with chronic diseases, and (2) frail older people.

Chronic illness care

The implementation of a national integrated care strategy in the Netherlands is currently disease-specific and focuses on the care for patients diagnosed with specific chronic diseases, such as diabetes or COPD. What is considered appropriate care is laid down in a nationally agreed protocol or "care standard"; currently 14 such protocols are available. Based on these care protocols, primary care groups consisting of 4 to 150 GPs and other primary care providers develop their care programmes, which need to be contracted by private health insurers. The care group coordinates the care and pays the different care providers involved. Patients are free to participate in integrated care or to organize the necessary care themselves. Integrated care for COPD, diabetes and vascular risk management (VRM) are financed by bundled payment.

In addition to these disease-specific care programmes, there are multiple initiatives that have a more overarching needs perspective. Especially for patients suffering from complex needs, such as multimorbidity patients, disease-specific strategies often fall short in providing appropriate care (Gijsen et al., 2013). For these patients it may be important to integrate medical care, social care and/or home care, as well as community services. Efforts are being made to extend disease-specific care programmes with case management principles for patients with co-morbidities (Rijken et al., 2014). In the CasCo programme, for instance, trained practice nurses apply case management in addition to diabetes management. The INCA model (Snoeijs, Struckmann & van Ginneken, 2015) stimulates an integrated approach using the care modules of the care standards mentioned above. Stepped care modules, also covering health behaviour and psychological issues, are described and an individual care plan is developed, based on the patient's individual needs and situation. This approach, which is currently being piloted, may suit the needs of patients with specific combinations of chronic diseases, for which care standards are available. However, there is no national strategy to provide integrated care for all patients suffering from multimorbidity.

Care for frail older people

To improve integrated care for older people with complex care needs, the National Care for the Elderly programme was set up, allowing regional networks to experiment with models of integrated care delivery exceeding the boundaries of existing legislation and financing structures (CSO, NFU & ZonMw, 2012). Between 2008 and 2016 a total of 125 innovative approaches have been implemented. An example is U-CARE, which aims to improve the identification and monitoring of general practice patients aged 60 years and older at high risk of developing frailty. It makes use of a software application to detect potentially frail patients. A multicomponent care programme integrating medical, social and home care is delivered by trained practice nurses. The programme has proven to result in less functional decline (Bleijenberg, 2013).

5.3 Primary/ambulatory care

Primary care in the Netherlands has a wide variety of providers, including GPs, physiotherapists, pharmacists, psychologists and midwives. To reduce the traditional fragmentation in the primary healthcare field, government policy aims to further strengthen and develop primary care. The field has to cope with the growing demand for services, increased complexity of demand and changing preferences of patients. The current policy aims to create a central role for the GP in community care, to promote self-management by patients and to create a strong gatekeeping function for GPs (National Association of GPs & Ministry of Health, Welfare and Sport, 2012).

GPs play a pivotal role in primary care and in the healthcare system in general, because they function as gatekeepers. The gatekeeping principle is one of the main characteristics of the system and denotes that hospital care and specialist care (except emergency care) is mostly only accessible upon referral from a GP. All citizens are listed with a GP, mainly in their own neighbourhood. Patients register with a GP of their choice and can switch to a new one without restriction. However, GPs have the right to refuse a patient. Reasons to refuse patients can be that the patient lives too far from the practice or because the GP already has too many patients on their list. Almost 100% of the population can reach a GP within 15 minutes from their home (Deuning, 2013). Given their key role in the healthcare system, quick and easy access to a GP is generally seen as very important. This importance is reflected by the fact that GP care is excluded from the compulsory deductible. GPs can usually be visited within two days. Examples of tasks that have explicitly become the responsibility

of GPs are the coordination of care for common chronic conditions, such as diabetes, COPD, asthma and cardiovascular risk management, and mental care. Generally, minor problems are treated within the GP practice while more severe cases are referred to specialized care.

Dutch GPs are generally non-interventionist, which is reflected in low prescription and referral rates (also see Section 5.6). In 2014, 280 per 1000 registered patients were referred to medical specialist care (Verberne & Verheij, 2015). However, looking at the level of contacts (patients can have several contacts with their GP in one year, see Table 5.2), approximately 93% of all contacts are handled within primary care; only 7% of the contacts resulted in a referral to secondary care in 2014 (Netherlands Institute for Health Services Research, 2015). Approximately 70% of the registered patients received a prescription for medication in 2014 (Hek et al., 2015). During the night and at weekends, out-of-hours GP care is provided by larger cooperatives of GPs ("GP posts"). GP posts also have a gatekeeping function for emergency care. Some emergency care can be carried out by GPs and some is referred to the emergency ward.

Primary care in the Netherlands is strong in comparison with primary care in many other European countries. Recently, the Quality and Costs of Primary Care in Europe (QUALICOPC), study showed that Dutch GPs have broad service profiles compared to GPs in many other countries. Dutch GPs are frequently contacted by their patients as first contact to the healthcare system. Moreover, Dutch GPs commonly carry out minor procedures, such as the excision of warts or insertion of IUDs. Only Finnish GP practices provide a broader scope of services. With regard to the treatment and follow-up of diseases such as Depression and Parkinson's disease, the involvement of Dutch GPs is above the average in other countries. Their involvement in prevention is just below the average, even though this has significantly increased in the past decades, which is mainly due to an increase in systematically informing patients about the risks of smoking (Schäfer et al., 2016a, 2016b).

In an international comparison it was found that, in general, Dutch patients are satisfied with the care delivered by their GP. This is especially true in the areas of continuity and accessibility of care, communication with their GP and involvement in decision-making. However, as in many other countries, Dutch patients would prefer to have the option to discuss multiple problems during a consultation and would prefer more attention for psychosocial issues, in consultations with their GP (Schäfer et al., 2015).

In 2014 there were 8812 practising GPs. About one-third of GPs (33%) work in group practices of three to seven GPs, 39% work in two-person practices and 28% work in a single-handed practice (Netherlands Institute for Health Services Research, 2015). Most GPs are independent entrepreneurs or work in a partnership. A small share of GPs is employed in a practice that is owned by another GP. A full-time working GP has a practice list of approximately 2200 patients (Croonen, 2014). People contact their GP four times per year on average; however, this varies sharply between different age categories, as shown in Table 5.2. Over the years 2010–2014 the number of contacts per age group remained rather stable, but the GP-patient contact has been changing since 2010. The number of short consultations and home visits (less than 20 minutes) decreased, while the number of long consultations and visits increased. Furthermore, the number of email consultations increased significantly from 6 per 1000 patients in 2010 to 17 per 1000 patients in 2014. Fig. 5.2 shows that the total number of outpatient contacts (which includes both GP care and outpatient hospital care) per person per year in the Netherlands (6.2 in 2013) is slightly below the EU15 average (6.9 in 2013) and well below the EU27 average (7.5 in 2013). The number of outpatient contacts decreased from 2000 (5.9) to 2004 (5.3) and then rose again to 6.2 in 2013 (World Health Organization, 2014).

Table 5.2

Contacts of citizens with their GP by age group (face-to-face contacts and telephone consultations in 2014), and by type of contact (2010–2014)

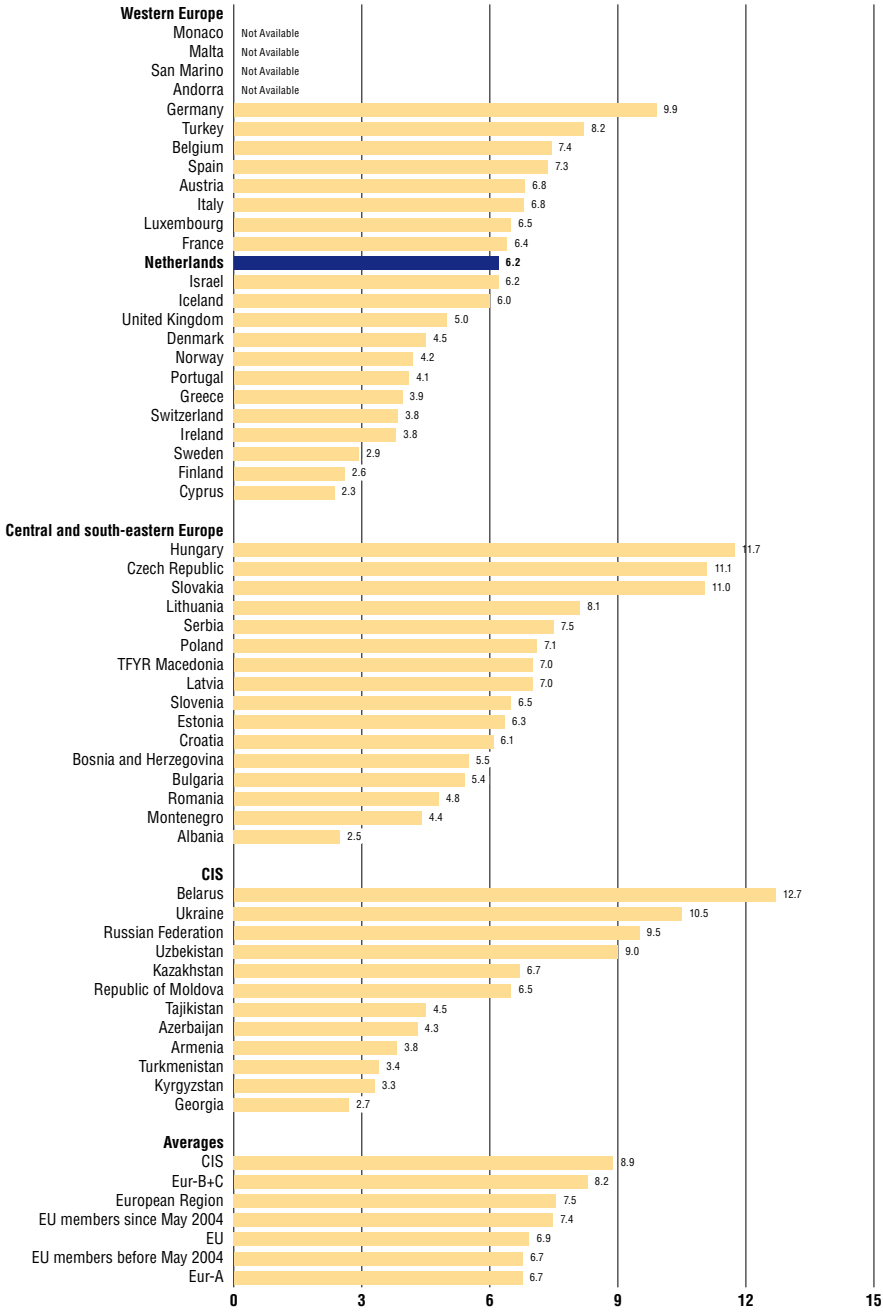
Age group	Contacts in 2014	Type of contact	2010	2011	2012	2013	2014	% change 2010–2014
0–4 years	3.2	Consultation short*	2.23	2.30	2.19	2.15	2.12	–5.0
5–17 years	2.2	Consultation long*	0.44	0.49	0.49	0.50	0.57	22.2
18–44 years	3.3	Home visit short*	0.14	0.13	0.13	0.12	0.11	–26.9
45–64 years	4.3	Home visit long*	0.07	0.07	0.08	0.08	0.08	12.3
65–74 years	5.8	Telephone consultation	1.02	1.07	1.07	1.10	1.07	4.6
75–84 years	8.7	Vaccination	0.00	0.00	0.00	0.00	0.00	–25.0
>= 85 years	12.5	Email consultation	0.01	0.01	0.01	0.01	0.02	62.7
		Special procedures	0.22	0.22	0.23	0.22	0.21	–2.1
Total	**4.2**	**Total**	**4.13**	**4.29**	**4.20**	**4.19**	**4.19**	**1.32**

Source: Netherlands Institute for Health Services Research, 2015; Prins et al., 2015a, 2015b.

Notes: * Short consultations/visits less than 20 minutes, long consultations/visits more than 20 minutes.

Fig. 5.2

Outpatient contacts per person per year in the WHO European Region, 2013, or latest available year



Source: WHO Regional Office for Europe, 2015.

Note: TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Most GPs are members of the Dutch College of General Practitioners (NHG). The NHG has developed guidelines for over 90 different health complaints. These guidelines contain recommendations about anamnesis, examination, treatment, prescription and referring. These guidelines are regularly updated on the basis of new evidence.

Other examples of primary healthcare providers are physiotherapists, dentists, midwives, remedial therapists (*oefentherapeuten*) and primary care psychologists. Dentists and midwives have always been directly accessible. Physiotherapists have become directly accessible since 2006, although half of the patients are on referral by a GP; the other half visit the physiotherapist without referral. Visits without referrals have increased from 37% in 2010 to 47% in 2014 (Verberne, Barten & Koppes, 2015). A special characteristic of obstetric care is midwife-led home deliveries for low-risk pregnancies. In 2012, 16% of women who gave birth delivered at home, 2% in a special birth facility and 13% in an outpatient hospital ward under the supervision of a midwife or GP (van den Berg et al., 2014a). Since 2008 remedial therapists have been directly accessible. For primary care psychologists a referral is required, since 2014.

Since the late 1990s some important changes have been taking place in primary care. Although the GP is still the most central figure, several tasks of GPs have been shifted towards other primary healthcare providers. The practice nurse, working in a GP practice, has become an important new professional in general practice. Practice nurses take care of specific categories of chronically ill, especially patients with diabetes, COPD and cardiovascular diseases. Moreover, the GP is no longer the gatekeeper for all forms of care. In 2006 the physiotherapist became freely accessible and later remedial therapists followed. Occupational doctors have become qualified to refer patients to secondary care. On the other hand, since 2014 a larger share of mental care has become the responsibility of the GP. GPs can only refer patients to mental care if they suspect a DSM IV diagnosis (see Section 5.11). Less severe mental problems are often dealt with by a mental care practice nurse, under the supervision of a GP. The mental care practice nurse role was introduced in 2007. In 2014, 88% of GP practices in the Netherlands had a mental care practice nurse attached to the practice (Magnée, Beurs & Verhaak, 2015).

Home nursing care (*wijkverpleging*) is provided by district nurses (*wijkverpleegkundigen*). District nurses assess the needs of their clients and coordinate the care between client, informal carers, GP, other healthcare professionals and social care professionals involved in the care for the client. They provide nursing care and personal care, such as dressing and bathing. Since 2015, nursing care is provided under the Health Insurance Act. Previously

it was provided as long-term care service (under the former AWBZ). In 2010 about 612 000 persons received home nursing care, about one-third of them females aged 80 years and over (de Putter et al., 2014).

5.4 Specialized ambulatory care/inpatient care

Secondary care encompasses those forms of care that are only accessible upon referral from a primary care health provider, such as a GP, dentist or midwife. These forms of care are mainly provided by hospitals and mental healthcare providers. Hospitals have both inpatient and outpatient departments, as well as 24-hour emergency wards. Outpatient departments are also used for pre- or post-hospitalization diagnosis.

There are six types of institution that provide hospital or medical specialist care:

- general hospitals
- academic (university) hospitals
- specialized hospitals (providing care for one type of condition only, such as cancer hospitals, eye hospitals, rehabilitation centres)
- independent treatment centres, providing day care only
- top clinical centres (providing both general hospital care and complex care)
- trauma centres.

In 2014 there were 85 general hospitals (of which 28 were top clinical centres) in 131 different locations, 8 university hospitals, and 65 specialized hospitals. These hospitals provide practically all forms of outpatient care as well as inpatient secondary care. Most hospitals also have 24-hour emergency wards. Except in cases of emergency, patients only consult a specialist upon referral from a GP or by referral from another medical specialist. The specialized hospitals concentrate on specific forms of care or on specific illnesses (such as revalidation, asthma, epilepsy or dialysis). In 2014 there were 268 independent treatment centres. The care provided by independent treatment centres is limited to day care in the so-called free segment. This is non-acute, freely negotiable care that can be provided in an outpatient setting or as one-day admissions. Most top clinical centres are part of a university hospital or are operated by a number of hospitals working cooperatively. Examples are the nine cancer clinics and the clinics for organ transplantation (including ten for

kidney transplants, three for lung transplants, and three for heart transplants in 2013). In 2011 there were 11 trauma centres, most of them related to a university hospital (National Institute for Public Health and the Environment, 2014a).

Most hospitals are foundations. Hospitals are non-profit institutions as a for-profit motive is not allowed. Whether or not hospitals should be allowed to generate profit and to have shareholders is still a topic of political debate. A bill submitted by the Minister of Health in the summer of 2014 and proposing to allow profit-making under certain conditions was withdrawn in December 2014 because of the fierce opposition in the First Chamber. It is not yet known when it will be submitted again (van Dorresteijn, 2014).

Within hospitals, approximately 60% of medical specialists are self-employed and used to be organized in partnerships per specialty (Rabobank, 2014/2015). In a few hospitals, especially university hospitals, all specialists are employed by the hospital. Furthermore, all paediatricians are in salaried service in hospitals. In 2014 there were 24 584 registered medical specialists[5]. The largest categories were psychiatrists (3416), internists (2170) and anaesthesiologists (1821) (KNMG, 2015). In 2015 the position of the medical specialist partnerships changed. Medical specialists no longer negotiate with insurers on prices for their services, but instead negotiate directly with the hospital on their remuneration. As a result, some medical specialists became employees of the hospital, but most united in a medical specialist company per hospital. It is not clear whether the National Tax Office will acknowledge these companies as independent entrepreneurs. This may have financial consequences for the medical specialists.

In 2012 there were 257 hospital admissions per 1000 population. Of all hospital admissions, approximately 54% were one-day admissions. Clinical admissions lasted on average 5.2 days in 2014. The average length of stay has been steadily decreasing over the years, dropping down from 10.7 days in 1990 (Centraal Bureau voor de Statistiek, 2014). (See Fig. 5.3.)

The government aims to replace medical specialist care with GP care, whenever possible. This relates mainly to low complex and non-acute care. Chronic care for conditions such as COPD and diabetes is considered to be suitable for substitution. For diabetes care, extra consultations in the GP practice can lead to less medical specialist care.

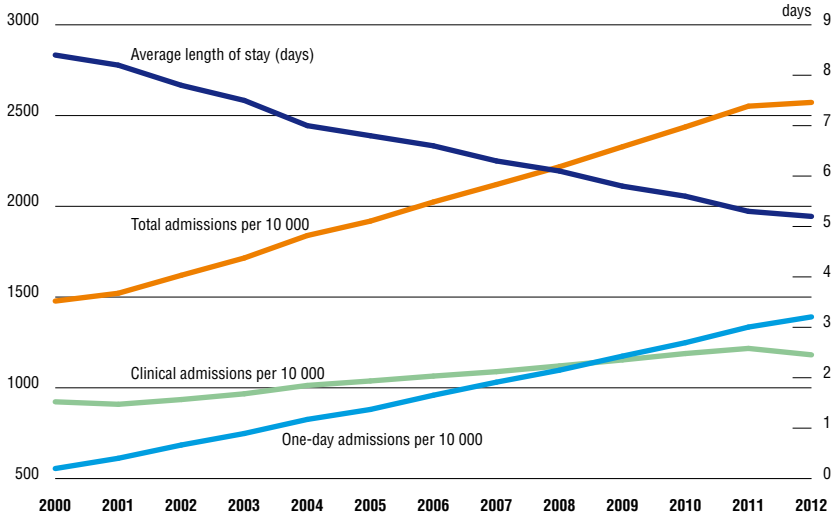
Since the early 1980s the number of people receiving hospital care has been rising. In the same period the proportion of one-day admissions has risen considerably. Fig. 5.3 shows that in a period of 12 years (2000–2012) the

[5] The list of registered medical specialists includes GPs, profile physicians (such as addiction physicians and forensic physicians) and occupational and insurance physicians. These are not included in the number provided here.

number of one-day admissions has almost tripled, while the number of clinical admissions grew only slowly. In this same period the average length of stay decreased by 40% (Centraal Bureau voor de Statistiek, 2014). This trend is mainly the result of developments in non-invasive surgery.

Fig. 5.3

Clinical admissions, one-day admissions and length of stay (2000–2012*)

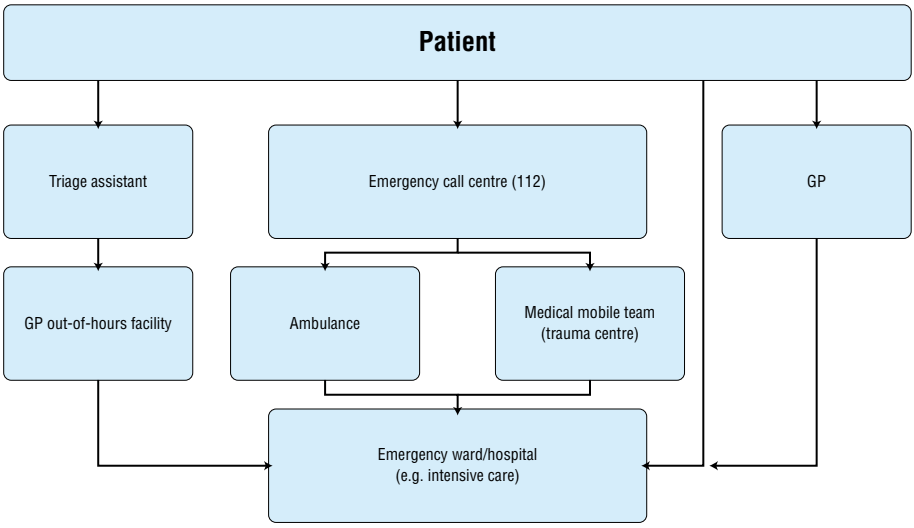


Source: Centraal Bureau voor de Statistiek, 2014. * 2012: provisional data.

5.5 Emergency care

Emergency care is care that must be provided immediately after an accident or for a very acute illness. Emergency care is provided by GPs, emergency wards and trauma centres. Depending on the urgency of the situation, patients or their representatives can contact the GP or the GP post (for out-of-hours care), call an ambulance or go directly to the emergency ward at the nearest hospital. See Fig. 5.4 for an emergency care flow chart and Box 5.2 for an example (a man with acute appendicitis).

Fig. 5.4
Flow chart for patient pathways in emergency care



Source: Authors' compilation.

Except for situations where an ambulance is required (such as traffic accidents), patients without an acute life-threatening illness or injury are expected to contact a GP. All GPs have a separate telephone line for emergency calls. The GP treats the patient and, when necessary, refers the patient to the emergency ward or calls an ambulance. Outside office hours (nights and weekends) patients can contact a GP out-of-hours facility. In 2015 there were 122 GP posts for out-of-hours care (InEen, 2015); 67% of the Dutch population could reach a GP post within 15 minutes by car, with less than 1% having to travel for more than half an hour (National Institute for Public Health and the Environment, 2014a). In GP out-of-hours facilities specially trained assistants answer the phone and perform triage. Depending on the complaint, the assistant advises the patient to come to the GP out-of-hours facility or the GP visits the patient at home. If considered necessary by the GP, the patient is referred to the hospital. However, in practice, around 44% of emergency ward patients arrive at the hospital without referral from a GP or GP out-of-hours facility (Vektis, 2013). For about 60% of these self-referrers, the emergency ward healthcare providers evaluate the referral as inappropriate (Netten et al., 2002). A plan in 2013 to charge €50 for inappropriate referrals in order to reduce their numbers was not implemented because of legal issues (Visser, 2013). If the care can be

provided by a GP out-of-hours facility, the care is completely paid by basic insurance. If the care is provided by a hospital emergency ward, the mandatory deductible applies.

In 2014 there were 91 hospital-based emergency wards that provided care 24/7 (Kommer et al., 2015). The emergency wards are staffed with a team of medical specialists and specialist nurses. Disciplines that are represented in most teams are a surgeon, a cardiologist, an internist, a neurologist and a paediatrician. Patients have their first contact with a trained emergency ward nurse who performs triage. For this triage, a guideline has been developed. Emergency wards are well spread over the country and can be reached within 45 minutes from almost all places, except for the islands (Kommer et al., 2015). In recent years a growing number of emergency wards and GP posts have integrated both organizationally and geographically: 71 emergency wards also have a GP post at the same location (Kommer et al., 2015). In these settings a triage assistant decides whether a patient can be treated by a GP or should go to the emergency ward. This structure avoids unnecessary visits to the emergency ward and shortens waiting times, while patients are more satisfied (van Randwijck-Jacobze et al., 2010).

In urgent situations, patients or others can call the emergency call centre (*meldkamer*) and ask for an ambulance. At the call centre the telephone is operated by a specialized and often medically trained assistant, who must quickly evaluate the urgency of the call. In 2013 there were 206 ambulance-posts (Kommer et al., 2015). An ambulance should not take longer than 15 minutes to reach an emergency site. The assumption made for calculations is a two-minute response and call-out time and a net travel time of 13 minutes. The total normative time for an ambulance to respond and to travel to an emergency ward is 45 minutes, which was not possible for 0.14% of the population (Kommer et al., 2015). An ambulance is always staffed by a specialized nurse and a driver, who also assists the nurse.

For very severe accidents, there are 11 trauma centres, most of them at university hospitals. To be classed as a trauma centre, a hospital needs 24-hour availability of emergency care, an intensive care unit, a large range of medical specialists and a mobile medical team (MMT). This MMT consists of a specialized physician (often a surgeon), a pilot or driver and a trained nurse. Four trauma centres have a helicopter, the others only have ambulances. For most citizens, except those living in some remote areas, a trauma centre can be reached within one hour (Deuning, 2012). One Belgian and two German helicopters are available in the border regions.

5.6 Pharmaceutical care

The supply of prescription-only pharmaceuticals is exclusively reserved to pharmacists and dispensing GPs (in some rural areas). Over-the-counter (OTC) pharmaceuticals for self-medication are available at both pharmacies and chemists. Since 2007 this has been regulated by a new law on medical supplies and drug distribution: the Medicines Act (*Geneesmiddelenwet*). The Health Care Inspectorate (IGZ) enforces the proper distribution of pharmaceuticals according to this Act. Manufacturers, GPs and community pharmacists are jointly responsible for providing users with independent information on pharmaceuticals, as published by the *Farmacotherapeutisch Kompas* (containing pharmacotherapeutic guidelines), compiled by the National Health care Institute and *Geneesmiddelenbulletin* (for pharmaceuticals in general). The *Geneesmiddelenbulletin* is a national drug bulletin that is financially and intellectually independent of the pharmaceutical industry and aims to promote rational pharmacotherapy, which may be regarded as the practical application of the principles of "evidence-based medicine" (Geneesmiddelenbulletin, 2015). In principle, only physicians, dentists and midwives are allowed to prescribe medication. From 2012 onwards, for a period of five years, nurse specialists have a temporary prescription permission, as long as: the prescriptions are related to their field of expertise; the pharmaceuticals are non-complex routine prescriptions with low risks; a diagnosis is set by a physician; and national guidelines are followed. As of January 2012, Dutch nurse specialists are allowed to prescribe any licensed medicine for any medical condition within their specialism and competence. This permission is an experiment that will be evaluated after five years. Nurse specialists must have successfully completed a two-year Master's degree programme in Advanced Nursing Practice and be registered in the Nurse Specialist Register. In addition, since 2014 specific categories of registered nurses (RNs), namely diabetes care nurses, lung nurses and oncology nurses are allowed to prescribe a limited number of medicines (Kroezen, 2014). Since 2014 all prescriptions should be issued electronically. Around 80% of all medication is prescribed by GPs (SFK, 2003).

There are three types of pharmacy: public pharmacies, hospital pharmacies and dispensing general practices. In 2014 there were nearly 1980 public pharmacies, of which 79 were located in a hospital but served outpatients. These hospital-based outpatient pharmacies are a new development in the past decade. In 2014 there were 394 GP dispensing practices (Dutch Healthcare Authority, 2014a). Most public pharmacies are owned by independent entrepreneurs.

Around 45% are part of a chain of pharmacies. Many of these chains are owned by the pharmaceutical wholesalers. For inpatient hospital pharmaceutical care, hospitals have their own in-house pharmacies.

For out-of-hours services, different options exist. Patients may go to one of 37 service pharmacies, which are open during the evening, at night and weekends only. Some of the pharmacies that are open during office hours also have (limited) out-of-hours opening as well. There are 57 of these hybrid pharmacies. In some regions groups of pharmacies have organized alternate shifts for the individual pharmacies in the group. There are 10 of these groups in the Netherlands (Dutch Healthcare Authority, 2014a).

A relatively new development is the rise of internet pharmacies. There are currently 10 of these companies. They deliver nationally, by means of couriers, to the homes of their clients. They do not have physical locations (Dutch Healthcare Authority, 2014a).

In 2014, 71% of the supplied drugs were generics, which is a strong increase compared to 2005, when only half of the supplied drugs were generics. The highest expenditure was on pharmaceuticals for asthma and COPD, with drugs for diabetes in second place (Griens et al., 2015).

New in the financing system since 2012 is the differentiation between service delivery and dispensing medicines. The Dutch Healthcare Authority distinguished 13 different services defined for the care that pharmacists deliver, of which seven are covered by the Health Insurance Act:

1. Delivery of a first-time prescription of medication that is included in the basic benefit package (introduced in 2014 as a separate reimbursable service), which includes a check on the appropriateness of the prescription and interference with medicines already used by the patient, advice on how to take the medicine, and providing information about possible side-effects;
2. Delivery of a prescribed medicine (repeat prescription) which includes, inter alia, a check on appropriateness, correct use and experiences of the patient with its use;
3. Instructions for the use of a device needed to take a medicine (such as an inhaler);
4. Medication review, a periodic evaluation of the medicines used by patients with a chronic disease;

5. Pharmaceutical counselling (including a medication review) in the case of hospital admission;
6. Pharmaceutical counselling in the case of hospital discharge; and
7. Pharmaceutical counselling in the case of day care or outpatient hospital visits.

Health insurers negotiate with pharmacists on the volume and price of these services and have to safeguard sufficient pharmaceutical care for their insured in a given area. The remaining, non-insured services may relate to advice for travellers, advice on the use of over-the-counter medicines, group counselling of patients with a specific disease (for example, diabetes mellitus) or using a specific drug, and services between pharmacists. Health insurers may negotiate with pharmacists with respect to the availability and price of non-insured secondary services, but they are not obliged to do so.

The introduction of the first-prescription service – checking appropriateness and giving advice and information – has led to protests by patient organizations. The Dutch Consumers Association (*Consumentenbond*) (Mul, 2014) and the Dutch Patient Federation (*Patiëntenfederatie*, NPCF) (NPCF, 2014b) argued that many of these first-prescription consultations at the counter did not take place or were of insufficient quality. Furthermore, in some cases patients felt that they did not need this information and thus did not want to pay for it. Pharmacists report discussion at the counter or even aggression resulting from a lack of understanding on the side of the patient for the billing of this service (Griens et al., 2015).

Community pharmacists in the Netherlands have structured cooperation with the GPs in their area through the so-called Pharmacotherapy Consultation Groups (*Farmaco-Therapeutisch Overleg*, FTOs). In these FTO groups pharmacists and GPs discuss pharmaceutical treatments and products, and aim to reach consensus about their prescribing and information policy. Popular themes in FTOs include poly-pharmacy, patient compliance and prescription refills. As FTO groups are autonomous, their quality varies. Good FTOs are associated with more effective and more efficient prescribing by their members. The quality of these groups can be categorized in four levels: (1) no regular meetings, (2) regular meetings without concrete commitments, (3) regular meetings with explicit agreements, and (4) regular meetings with verification of the commitments. About 60% of the FTOs had reached quality level 3 or 4 in 2011 (van den Berg et al., 2014a). A survey among 610 FTOs looked into the role of the pharmaceutical industry in FTOs. Well over half of the groups (58%)

had a strict policy to deny industry representatives access to the pharmacy. Individually, however, 60% of pharmacists and 40% of GPs admitted to meeting with pharmaceutical industry representatives (DGV, 2008).

Over-the-counter pharmaceuticals are available at several places, depending on the category of medication. The first category consists of medication that is only available at pharmacies; the second category is also sold by chemists; and the third, most easily available category is also available in supermarkets and petrol stations. Over-the-counter medication and other non-reimbursed medication accounted for €170 million, about 4% of all pharmaceutical expenditure in 2014 (Griens et al., 2015).

In 2014 GPs issued one or more prescriptions for about 70% of their patients, and more than 90% of patients aged 75 and older received one or more prescriptions (Prins et al., 2015c). Expenditure on pharmaceutical care increased from €5212 million (2005) to €6038 million (2010), then decreased to €5169 million (2014) (Statistics Netherlands, 2015a). The decrease is mainly a result of the preferred medicine policy by health insurers (Batenburg, Kroneman & Sagan, 2015) (see Section 3.7.2).

5.7 Rehabilitation/intermediate care

Rehabilitation care is dedicated to persons who have become physically limited due to disease, accident or congenital disorders. Rehabilitation care is covered by the Health Insurance Act. It can be provided in special rehabilitation centres, either inpatient or outpatient. Outpatient care in these institutes is offered as a multidisciplinary package of care, including several different (allied) healthcare providers, such as physical therapists, occupational therapists, speech therapists and social workers under the supervision of a rehabilitation specialist. If only one of these services is needed, community-based (allied) healthcare providers may be contacted. In 2015 there were 20 rehabilitation centres and several hospitals had rehabilitation wards.

Since 2013 the medical specialist rehabilitation sector has used a quality and performance indicator list, developed by the stakeholders (rehabilitation centres, patients, insurers). At the website www.nvz-kwaliteitsvenster.nl each rehabilitation centre and the majority (18) of the hospital-based rehabilitation wards report their outcomes. For geriatric rehabilitation a quality indicator set is currently (2015) under construction.

In 2015 a pilot started for a new financing model. Instead of DBCs, treatment modules will be the basis for financing. A treatment module is the description of a coherent set of care activities aiming at a certain treatment goal. The sector is currently developing these modules. The treatment of a patient will be composed of several treatment modules. The idea is that payment and treatment become more related to each other. The new financing system is planned to be operational in 2019 (Ekkelboom, 2015).

Next to rehabilitation care as described above, there is geriatric rehabilitation care, which is often provided in nursing home care under the supervision of a geriatric specialist (*specialist ouderengeneeskunde*). This type of care is meant for frail elderly persons who need to recover from a hip fracture, knee replacement or acute CVA, or who suffer from disabilities as a result of an operation or severe disease (Rehabilitation Netherlands, 2015).

5.8 Long-term care

Long-term care in the Netherlands has been reformed comprehensively since 2015 and is now spread over three acts. The first, the Long-term Care Act (*Wet langdurige zorg*), regulates care in institutions (residential care) and in the community (home care) for people who need 24 hour per day supervision. Home nursing care and personal care are regulated by the Health Insurance Act and funded via health insurers. Other support for people at home is regulated by the Social Support Act and is the responsibility of the municipality. For more detailed information on the changes, see Section 6.1.

5.8.1 Residential care

Access to residential care for those needing 24/7 supervision depends on an assessment by the Centre for Needs Assessment (CIZ). The CIZ has been commissioned by the government to carry out assessment for eligibility under the Long-term Care Act. Patients, their relatives or their healthcare providers can file a request with the CIZ for long-term care. The CIZ assesses the patient's situation and decides what care is required. The CIZ sends this decision to a care office (*Zorgkantoor*). Patients have the option to receive care in a residential home or at their own home. Residential care is provided in nursing homes. In 2014 there were 450 organizations for residential care providing care in about 2000 residential homes. (It is not clear to what extent these homes provide care that is covered by the Long-term Care Act.) For care at home, there are two options. Patients may receive care in-kind via the Complete Package at Home

option (*Volledig Pakket Thuis*) or they receive a personal budget and organize the care themselves. To avoid fraud, personal budgets are no longer (since 2015) paid directly to the patient, but the amount is deposited into the account of the Social Insurance Bank. The Social Insurance Bank pays the care provider after checking both the contract between patient and provider and the registration of hours worked. At the beginning of 2015 this led to administrative chaos, as the Social Insurance Bank was not ready for this task and payments for numerous care providers ran overdue. By the end of 2015 the situation seems to have stabilized.

According to a report by the Health Care Inspectorate in 2014 the quality of care in the residential homes needed improvement. In particular, the competences of the caring personnel were not in line with the needs of the clients. Many organizations worked with outdated protocols and incomplete care plans. In 2015 the inspectorate revisited 50 organizations and found that many had improved and that clients and their needs received more attention. However, education of personnel, safety in dispensing medication, keeping client records up-to-date and alignment between the several components of the care plan are still in need of improvement (Inspectie voor de Gezondheidszorg, 2014, 2015).

In 2014 almost 7% of the population lived in a residential home. The majority (57%) of the residents in residential homes are older than 80 years; of these residents, 65% of women and 44% of men are older than 80 years. The number of new residents declined at a rate of 5% per year in the period 2009–2012. The total number of residents, however, still increased, probably because people use this type of care for longer than before (van der Torre & Putman, 2015). In the same period the use of personal budgets for this type of care increased for both new recipients and total recipients. About 4% of the recipients of residential care receive a personal budget (based on van der Torre & Putman, 2015). The percentage of new recipients requesting a personal budget in 2012 was 2.8%.

5.8.2 Nursing and personal care at home

For long-term care at home for patients who do not need 24-hour supervision, nursing care needs are assessed and coordinated by district nurses. The care is provided by home care organizations, by district nurses (*wijkverpleegkundigen*) and by care assistants (*verzorgenden*). This type of care is now (since 2015) covered by the Health Insurance Act. In 2014 about 3.7% of the population aged 18 and over received some form of home nursing care. This includes sheltered

housing, support in social participation, support for informal carers and support for clients to organize their life. Responsibility for these types of care were shifted to the municipalities in 2015 (Statistics Netherlands, 2015a).

5.8.3 Domestic care and social support

Domestic care and social support are provided by home care organizations. Social support means that people with a (mental or physical) disability receive help in participating in society and in organizing their lives, if necessary, as well as the provision of medical aids (for example, wheelchairs) and home adjustments. According to the Social Support Act, people should be compensated for their inability to participate in society. Eligibility for domestic care and social support is assessed by the municipality; the municipalities usually operate a (virtual) Wmo-window where applications can be made. Assessment of needs for domestic care and social support is the responsibility of the municipalities and is mostly carried out by employees of the municipality or by social district teams. These assessments (frequently called "kitchen table dialogue", *keukentafelgesprek*) first explore the options for support from the patients' social network. If this appears to be insufficient, professional care may be deployed. This responsibility is formalized in the Social Support Act. In some cases municipalities delegate these assessments to the CIZ.

Many municipalities have created social district teams that should flag up problems and help citizens with solving their problems with the help of their informal network. These social district teams mostly have a multidisciplinary character and coordinate the social support for citizens in their neighbourhood. Van Arum & Lub (2014) concluded that although the tasks of these teams are described in rather general terms, at the same time municipalities have formulated high expectations of the results of these teams: the teams are seen as the ultimate solution to social problems, especially in deprived neighbourhoods (van Arum & Lub, 2014). A recent (at the end of 2015) evaluation of the functioning of these social district teams is not yet available.

Since 2015 domestic care funding has been under pressure, since the contribution for domestic care in the municipality fund was cut by about 30% compared to the amount spent on this type of care under the former Exceptional Medical Expenses Act in the year before (van Ginneken & Kroneman, 2015). Some municipalities drastically reduced the hours of provided care, while others completely abolished domestic care. Several lawsuits have revealed that municipalities had not carefully evaluated the situation of the individual citizen

before changing the number of hours of domestic care provided and judges ruled that hours of domestic care provision for clients who already had this type of care before 2015 can only be changed after a proper assessment. In 2014, 2.75% of the population received home help or social support (this may have changed after the reform of 2015, but figures are not available yet). Among the elderly above the age of 80 years 23.5% received home care or social support (Statistics Netherlands, 2015a).

A first evaluation of purchasing care under the Social Support Act by municipalities reveals that most municipalities have negotiated prices for care but no budget ceilings for providers. Thus the budget cut by the central government is mostly translated into tariff cuts for providers. Most municipalities state that they took into account the philosophy of life, cultural background and medical condition of clients. Municipalities use different ways to innovate and to improve quality. For innovation and quality improvement, cooperation is sought with providers and clients (Andersson Elffers Felix, 2015).

5.9 Services for informal carers

In 2012 approximately 1.5 million people (12% of the population) provided informal care to ill or disabled people. Informal care is defined as providing care for eight or more hours per week or for more than three months to sick or disabled persons. Women (15% of women) provide informal care more often than men (9% of men). One in seven informal care providers feels overburdened (Centraal Bureau voor de Statistiek, 2013). Frequent forms of informal care are emotional support, household chores, accompanying patients during visits to family or care providers, help with administration and so on. Most informal carers provide care over a long period; 75% provided care for more than three months in a year, and on average for more than five years. The average informal carer spends about 22 hours a week on caring (de Boer, Broese van Groenou & Timmermans, 2009).

In recent years (in the 2010s) Dutch health policy has been advocating a more central role for informal carers in caring for the sick and disabled. Dutch citizens, who consider long-term care the responsibility of the government, indicate that they are willing to provide care, but it should remain voluntary rather than obligatory (Kooiker & Hoeymans, 2014). Although the government acknowledges the importance of informal carers, financial compensation and facilities are limited. Informal carers may apply for respite care, but this may be subject to income-dependent co-payments. It is possible to insure respite

care via VHI. Furthermore, there used to be a small yearly allowance, with a maximum of €250, called the "*mantelzorgcompliment*". This nationally regulated amount was abolished in 2015, but some municipalities still provide this option. A tax reduction is possible for travel costs to sick family members. Support for informal carers, such as counselling or help in organizing care, is the responsibility of municipalities.

5.10 Palliative care

Most palliative care is integrated into the regular healthcare system. Palliative care is provided by GPs, home care, nursing homes, medical specialists and voluntary workers. Furthermore, there are growing numbers of hospices and palliative units (for example, in nursing homes). The Ministry of Health, Welfare and Sport strives for the further integration of palliative care into the mainstream healthcare system. Health care providers, palliative units and hospices participate in regional networks. The purpose of these networks is to promote integration and coordination of care.

GPs play an important role in palliative care. In the last year of their life people have on average 27 contacts with a GP. This is approximately 1.5 times the average contact frequency of patients above the age of 75. Although Dutch GPs have low home visit ratios, in the last year of a patient's life this is relatively high, at twice the number of office consultations (de Bakker, 2004).

In 2014 there were 319 hospices and palliative care units in the Netherlands that provided inpatient care. These hospices or units may be independent or attached to a hospital or residential home. There were 10 facilities dedicated to children. There were 606 institutions providing outpatient palliative care, and the largest groups were formed by home care organizations providing palliative care (247) and volunteer organizations (190). The involvement of volunteers in this type of care is high: 70 hospices are run by (mainly) volunteers and outpatient support is provided by190 volunteer-run organizations, involving 10 650 trained volunteers (Agora, 2014). Palliative care institutions serve only a small percentage (around 3%) of all people who die. Many of these patients die of fatal diseases such as cancer. Although the availability of palliative care facilities is sufficient according to health insurers, there are great regional disparities. Most facilities are concentrated in the big cities and in the western part of the country.

Palliative sedation – administering high doses of pain-reducing medication – is part of a normal medical procedure. It does not constitute termination of life because the drugs administered are not the cause of death. The aim is to alleviate suffering at the end of life, specifically unbearable pain. The physician administers drugs to render the patient unconscious, until the patient dies of natural causes (National Government, 2015a).

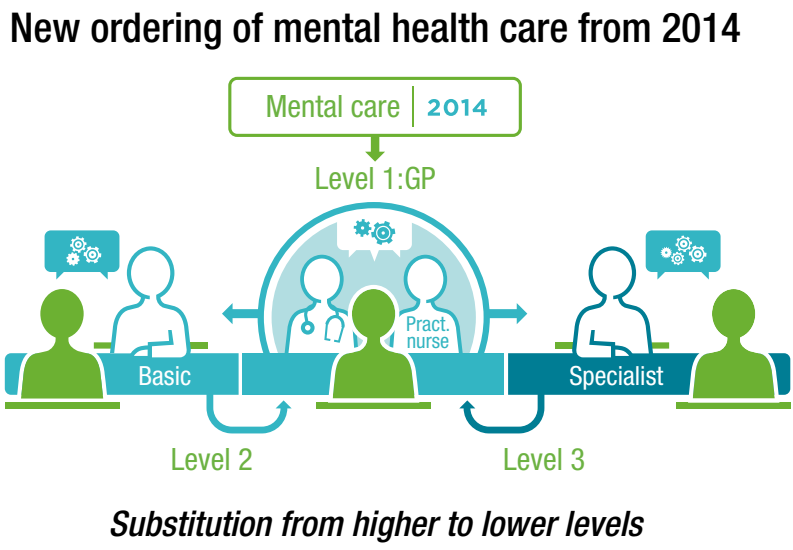
Since April 2002 the Dutch Penal Code has contained specific regulations regarding euthanasia. In that year the Termination of Life on Request and Assisted Suicide Review Procedures Act (*Wet Toetsing Levensbeëindiging op Verzoek en Hulp bij Zelfdoding*, WTL), also known as the Euthanasia Act, was brought into force by the government. The Act allows two forms of euthanasia, under strict conditions (Hulst, 2006): (1) termination of life by a doctor at the patient's request, with the aim of putting an end to unbearable suffering with no prospect of improvement; and (2) suicide with the assistance of a doctor. Euthanasia may only take place at the explicit request of the patient (National Government, 2015a). The Act makes an exemption from prosecution for doctors who comply with a request for euthanasia if they fulfil the statutory criteria of due care and report to the authorities (National Government, 2015a). According to these criteria, inter alia, the physician has to ensure that the request is voluntary and well considered; that the suffering is unbearable; and that there is no prospect of improvement. Also, the doctor has to consult another physician regarding the criteria of due care. The physician has to know the patient well to be able to assess the criteria. Therefore, patients from other countries cannot come to the Netherlands for euthanasia (National Government, 2015a). A regional review committee has to assess whether the doctor has complied with the criteria *ex ante* (Hulst, 2006). Doctors are not obliged to comply with a request for euthanasia, but have to refer the patient to another doctor (National Government, 2015a).

5.11 Mental healthcare

Since 2014 three levels can be distinguished within mental healthcare (see Fig. 5.5 and Table 5.3). People with mental health problems first have to go to their GP (level 1), where their condition is treated by the GP, often with the help of a specialized mental care practice nurse. In 2014 about 80% of GP practices employed a mental care practice nurse. If the GP cannot treat the patient and suspects a DSM-IV disorder, the patient is referred to basic mental care (level 2) for short-term treatment in the form of sessions and/or e-health. For complex

mental conditions (level 3), patients are referred to specialized mental care, preferably in ambulatory care and if necessary in inpatient care. Whenever possible, the patient is referred back to the GP. Mental healthcare is in a process of deinstitutionalization. In 2020 the number of mental care beds should be reduced by one-third compared to 2008 (National Government, 2015b).

Fig. 5.5
Mental care in the Netherlands



Source: www.ggz-nhn.nl. Infographic based on: GGZ Noord-Holland-Noord.

Providers of basic mental care (level 2) are, for instance, psychologists, psychiatrists or psychotherapists in an outpatient setting. Treatments may be short, medium, intensive or chronic. Short treatments are for patients with mild problems that form a low risk for issues like neglect, suicide or violence for the patient and their environment, with low complexity (other problems or comorbidity do not interfere with the treatment). Average treatment time is 300 minutes. Medium treatments are for patients with moderate severity with low complexity and a low to moderate risk. Average treatment times are 500 minutes. The intensive treatment is meant for patients with severe problems, with a low to moderate risk and with a low complexity. These treatments last on average 750 minutes. The chronic treatment is for patients with stable or unstable chronic problems, with a low to moderate risk. Often these patients have already had treatment in mental care and in most cases there are underlying personality problems. The treatment aims to stabilize the patient or to keep them stable.

The average treatment is 750 minutes per year (Bakker & Jansen, 2013). In 2012 patients had to pay a co-payment of a maximum €200 for mental healthcare. For inpatient care, a co-payment of €145 per month was applicable, in addition to the €200 co-payment and the mandatory deductible. These co-payments, except for the mandatory deductible, were abolished in 2013. Basic mental healthcare is covered by the Health Insurance Act and thus the mandatory deductible is applicable. There is a list of treatments (inter alia, neurofeedback and gestalt therapy) and disorders (such as adaption disorders and relationship problems) that are not part of the basic benefits package and thus have to be wholly paid out-of-pocket.

Specialized mental care (level 3) is for patients that have a (suspected) DSM-IV disorder, combined with highly complex problems, and/or form a high risk to themselves or their environment. The patient is treated by a multidisciplinary team. The patient is treated in an outpatient setting as much as possible. Once the treatment is completed, the patient is referred back to the GP, who may decide to treat the patient further within the GP practice or to refer the patient to basic mental care. For inpatient care, the first three years are covered by the Health Insurance Act and thus the mandatory deductible is applicable; after three years, the care is covered by the Long-term Care Act and co-payments are applicable according to the rules of this Act (see Section 3.4.1).

Table 5.3

Overview of mental care provision

Level	Provider of care	Type of disorder
Level 1		
	GP	Mild disorders (no DSM-IV), referral to other levels
	Mental care practice nurse	Mild disorders (no DSM-IV)
Level 2		
Basic mental care	Outpatient mental care provided by, inter alia, psychologists, psychotherapists, geriatric specialists	DSV-IV disorders: - Short treatment (average 300 minutes) for mild problems with low complexity and low risk; - Medium treatment (average 500 minutes), for moderate to severe problems with low complexity and low to medium risk; - Intensive treatment (average 750 minutes) for severe problems with low complexity and low to moderate risk; - Chronic treatment (average 750 minutes per year): patients with chronic mental problems
Level 3		
Specialized mental care	Outpatient and inpatient mental care provided, inter alia, by clinical psychologists or psychiatrists	DSM-IV disorder, combined with highly complex problems and/or forming a high risk to themselves or their environment. The patient is treated by a multi-disciplinary team

Source: Authors' compilation.

Children under the age of 18 with mental or behavioural problems are treated under the Youth Care Act. This care is organized by municipalities. Many municipalities have installed youth care teams that flag up problems, help families with parenting, and treat children with mental and behavioural problems.

There is a substantial increase in the number of mental health GP contacts between 2010 and 2014. In 2010 GPs had 244 contacts per 1000 listed patients concerning a psychological symptom or diagnosis, while in 2014 there were 413 contacts per 1000 listed patients (Prins et al., 2015c).

In 2011, 818 000 people were treated in specialized mental healthcare organizations under the Health Insurance Act. Of these patients, 8% received inpatient care, 69% were aged between 18 and 64 years and half of them were male. In long-term care (under the former AWBZ) around 46 000 people received inpatient care (21%) or were in sheltered housing facilities (79%) and 80 000 people received ambulatory care. About 60% of the residential patients were male and 87% were aged between 18 and 64 years (GGZ Nederland, 2014).

Until 2008, the Exceptional Medical Expenses Act (AWBZ) financed the major part of mental healthcare. In 2008 the financing structure was fundamentally reformed. The first 365 days of mental health treatment became part of basic health insurance and are thus financed under the Health Insurance Act (Zvw). The funding of preventive mental healthcare was transferred to the Social Support Act (Wmo), which means that the responsibility for organizing this care was shifted to municipalities. Since 2014 the first three years of (inpatient) mental treatment is financed through the Health Insurance Act.

In 2011 mental disorders (22%) contributed most to the burden of disease expressed in DALYs in the Netherlands, together with cardiovascular diseases (20%) and cancer (13%). The "top three" mental disorders are anxiety disorders, mood disorders and dementia (National Institute for Public Health and the Environment, 2015b).

5.12 Dental care

Oral healthcare is provided in primary care by private dentists and dental hygienists. Most citizens register with a dentist. There were approximately 8580 dentists active in the Netherlands in 2015, providing on average one dentist per 2000 inhabitants. The exact number of practices is unknown, but was estimated in 2014 at 5100 practices, implying that most dentists work in small independent practices. Dental hygienists (3216 in 2013) are specialists in preventive care

and can be visited directly or upon referral from the dentist. Preventive tasks and relatively simple dental care are increasingly being substituted to dental hygienists. Nine out of ten dentists regularly refer to a dental hygienist either in their own practice or in the practice of a colleague, or to an independent dental hygienist practice (KNMT, 2015; National Institute for Public Health and the Environment, 2014a; Volksgezondheidenzorg.info, 2015).

In 2014 almost 78% of the population visited a dentist, on average 2.7 times (KNMT, 2015). For young people up to the age of 17, dental care is covered by basic health insurance. People aged 18 and above must pay themselves or can purchase complementary VHI for dental care.

In secondary care, there are two specialist medical professions: dental surgeons and orthodontists. Most dental surgeons work in hospitals, and most orthodontists work in ambulatory settings outside hospitals. In 2015 there were 269 dental surgeons and 315 orthodontists (KNMT, 2015). These specialists can be consulted with a referral from a GP or a dentist.

Care provided by dentists and dental hygienists for adults is not part of the basic benefits package. Most insurers offer special packages of VHI for this type of care, with a wide variation in compensations. Under the age of 18, this care is included in the basic benefits package. Care provided by dental surgeons is covered by the basic benefits package; care provided by orthodontists is not part of this package, but can be insured via VHI.

5.13 Complementary and alternative medicine

There is a wide choice of alternative treatments available in the Netherlands. Examples of alternative treatments are homoeopathy, acupuncture, natural medicine, magnetizing and osteopathy. In 2013, 6.3% of the population consulted an alternative care provider, including GPs who also provide alternative treatments. More women than men attended an alternative care provider (8.3% and 4.3%, respectively) (Statistics Netherlands, 2015a). Overall, confidence in alternative care providers is low compared to confidence in regular care. In 2014, 11% of people said that they have confidence in alternative care providers who are not medically educated. People have more confidence in physicians who also provide alternative treatments (37%), but this is still low compared to regular care providers such as GPs and medical specialists (around 85%) (Brabers, Rooijen & de Jong, 2014).

Provision of alternative care is legal. However, the Health Care Professions Act (BIG) defines a range of activities that are restricted to physicians and other registered medical professions. Some health insurers also cover alternative treatments, but these are either additional "free" benefits or covered by complementary VHI. Alternative treatments are not covered by basic health insurance.

5.14 Health services for specific populations

Refugees are entitled to healthcare in the Netherlands as soon as they are registered at the Central Agency for the Reception of Asylum Seekers (*Centraal Orgaan opvang Asielzoekers*, COA) and living in a refugee housing location. The care that is covered is comparable to the basic benefits package. Only a few treatments are excluded (such as in-vitro fertilization and severe dyslexia treatment), whereas coverage is more generous in some cases (such as compensation for glasses). The Asylum Seekers Care Regulation (*Regeling Zorg Asielzoekers*) regulates access to healthcare for asylum seekers. Asylum seekers are listed with special asylum seekers health centres, a type of GP practice. Asylum seekers in need of care should contact their practice first. This can be done by calling the practice phone line or visiting a walk-in hour at the reception location where they stay. Health care provided by contracted providers (with the exception of emergency care) is free of charge (Asylum Seekers Care Regulation, 2015). Asylum seekers do not have to pay for insurance or a mandatory deductible.

Undocumented migrants have access to medically necessary care in the Netherlands. What is medically necessary is assessed by the GP they visit. For medicines and hospital care, migrants have to go to designated pharmacies and hospitals. For pharmaceuticals, they have to pay a contribution of €5. All other care should be paid out-of-pocket, although providers are compensated by the government if costs cannot be recovered from the migrant for the payment of their services.

Military employees are insured for medical care via the Ministry of Defence. They receive care at designated military care facilities.

6. Principal health reforms

Two major healthcare reforms have been implemented in the Netherlands since the mid-2000s. First, a major reform in 2006 was targeted at the curative sector (acute care), and aimed to promote efficiency, to have less central governance and to improve access at acceptable societal costs. This was effectuated by introducing market mechanisms in order to create incentives for a more efficient organization of the healthcare system. The market was subjected to regulation to safeguard the public interest ("managed competition") and (quasi-) independent organizations monitor whether these rules are observed. The reform has not led to sustainable cost containment, which became an even more pressing issue after the 2008 financial crisis. Instead the Minister reverted to more traditional sector agreements on spending to curb costs, and expenditure growth has slowed. Quality is not yet a leading principle in the purchasing processes; the focus is mostly on price and volume. Yet quality is becoming more important due to the introduction of quality indicators and the development of professional guidelines. Second, another major reform was started in 2015 and addressed long-term care. The scope of care provided under the former Exceptional Medical Expenses Act gradually expanded, while the expenditures increased substantially. To keep long-term care affordable and organize care more efficiently, this care became largely decentralized to municipalities (home care, social support, sheltered housing and youth care) and health insurers (home nursing care). The assumption is that municipalities are closer to the citizens and thus in a better position to assess what care is needed. For those needing supervision 24 hours per day, residential care is now provided under the Long-term Care Act (*Wet langdurige zorg*, Wlz). Its implementation thus far has been rocky, with many open questions relating to the adequacy of funding and staffing, and the adoption of new roles. As with the 2006 reforms, it will take time before its full impact becomes clear.

In addition, several smaller payment reforms have taken place, including: (1) lowering the administrative burden for hospitals and reducing administrative errors and fraud in the payment system; (2) strengthening the central position of the GP while promoting innovation and introducing a pay-for-performance scheme; and (3) defining pharmacy services and making them freely negotiable. Finally, a reform of the mental healthcare sector gave GPs and mental health practice nurses a central role in providing mental healthcare. Only in the case of a DSM-IV disorder can patients be referred to basic mental healthcare (for short-term outpatient care) or to specialized mental healthcare (for long-term outpatient and inpatient care).

6.1 Analysis of recent reforms

The Dutch health system has for many years been characterized by a large number of reforms, both large and small, at all levels of the health system. The focus in this edition of the Dutch Health System Review is on the period since 2006, when a large health insurance reform was implemented, which is still having an impact today, and which was followed by another major reform in the field of long-term care in 2015. Furthermore, there have been important reforms in mental healthcare and psychosocial youth care. For an overview of the most important reforms before 2006, see the previous edition of the Health system review of the Netherlands (Schäfer et al., 2010). Box 6.1 provides an overview of all key reforms since 2006.

6.1.1 The 2006 Reform: introduction of a single insurance scheme and managed competition

The 2006 reform was targeted at the curative care sector. Curative care means care with the focus on curing the patient: in other words, restoring their health. The aim of the reform was to promote efficiency, to have less central governance and to improve access. By replacing the system of central governance, where possible, by a more decentralized system of regulated competition, the government expected to improve the performance of the healthcare system by introducing equal conditions for insurers and insured and strengthening the roles of citizens, insurers and providers in such a way that they are stimulated to use healthcare resources efficiently. Citizens get more financial responsibilities, more influence and more choice for their health plan. It was hoped that insurers would strengthen efforts to purchase care for their insured with a good price-

performance ratio and, where necessary, more adjusted to the individual needs and wishes of their insured. The government remains responsible at system level for the accessibility, affordability and quality of care.

The policy process leading to the 2006 reform was discussed extensively in the previous Health System Review of the Netherlands (Schäfer et al., 2010). Below, the focus is on the changes since 2010.

Box 6.1

Key reforms in the organization and financing of care since 2006

2006	Major reform of the acute care sector, introducing managed competition and compulsory insurance for all citizens (see Section 6.1.1).
2007	Introduction of the Social Support Act 2007, which was the first step in decentralizing long-term care. Part of domestic care and psychosocial support were transferred to the municipalities.
2014	Reform of mental healthcare. Mental healthcare should be provided by a GP if possible. For suspected disorders listed in DSM-IV, patients can be referred to basic mental healthcare. Patients with long-term, high-risk disorders will be referred to specialized mental healthcare. Outpatient mental healthcare and the first three years of inpatient care (since 2015) are regulated under the Health Insurance Act. After three years of inpatient care, the financing of this care is transferred to the Long-term Care Act (see Section 6.1.2).
2015	Major reform of the long-term care sector. Long-term care is decentralized to municipalities for domestic care and social support and to health insurers for home nursing care. For domestic care and social support, the rights-based approach of the former Exceptional Medical Expenses Act is replaced with a provision-based approach (see Section 6.1.1). Psychosocial care for children, which was formerly organized under the Exceptional Medical Expenses Act, was also decentralized to the municipalities (see Section 6.1.3).
2015	Major reform of psychosocial youth care: decentralization of the care to municipalities and solving the problem of scattered care provision by bundling all care into the Youth Act and giving the municipality the main responsibility (see Section 6.1.4).

6.1.2 The organization of curative care after 2006

The 2006 reform introduced compulsory health insurance for all citizens and managed competition for healthcare providers and health insurers. The assumption behind the reform was that competition should lead to affordable care with higher quality. As a result, three healthcare markets emerged (see also Section 2.3 for an extensive description and Fig. 2.2 for a visual overview of the markets and their interrelationships):

- In the health insurance market, citizens purchase a health plan from one of the health insurers. Major characteristics include: health insurers are obliged to accept all applicants; they may not differentiate premiums based on the health risks of the insured; and insured can change health insurer each year (Bartholomée & Maarse, 2006).
- In the healthcare purchasing market, insurers purchase care for their insured population from healthcare providers. The Dutch Healthcare Authority formulates the services for which providers and insurers may negotiate prices. Health insurers are allowed to purchase selectively, as long as they meet their duty of care, meaning that they have to purchase sufficient care for their insured. If the care of a certain provider is considered to be of insufficient quality or too expensive, health insurers may decide not to contract.
- In the healthcare provision market, patients visit the healthcare provider of their choice, albeit with certain legal and practical restrictions. In the Netherlands patients are listed at a GP practice, but they are free to switch to another practice. In the case of a health issue, citizens go to the GP where they are listed. The GP may refer the patient to medical specialist care. The patient is free to go to the hospital of their choice, but cost-sharing may apply in the case of an uncontracted provider (see Section 3.4.1).

6.1.3 Developments since 2006

With the introduction of the 2006 reform, numerous transitional measures were implemented to protect organizations from large deviations in their budget. Over the years these measures have become less protective or have been abolished. For instance, the freely negotiable share of the hospital budget was initially restricted to about 10% of the budget. The remaining share was still financed via the old budget system. The share of freely negotiable DBCs gradually increased until it reached 70% in 2012. The remaining 30% will stay

regulated because the care cannot be planned (emergencies) or there are too few providers (see Section 3.3.4). Another example is the degree of risk-bearing by insurers. In 2006 health insurers were compensated for, on average, 47% of their loss or had to pay back, on average, 47% of their profit (for hospital care the compensation for insurers was even higher: 74%). Over the years the *ex-post* compensations were gradually decreased to 6% in 2014. The compensation for higher expenditure at macro level (for example, an unexpected increase in healthcare expenditure at national level) was abolished in 2012. As a result, insurers bear more risk not only individually, but also collectively (van Kleef, Schut & van de Ven, 2014). *Ex-post* compensations reduce the incentives to purchase care efficiently and should be not necessary if the *ex-ante* risk adjustment system is working well (Douven, 2010). Over the years the risk adjustment system improved considerably, but still is not functioning at an optimal level (KPMG & Plexus, 2014). An extensive description of the (former) *ex-post* compensations can be found in the previous Health System Review (Schäfer et al., 2010).

Several cost-containment measures have affected the out-of-pocket expenditure of patients. Firstly, the mandatory deductible, introduced in 2008 at €150 per year, was increased to €385 in 2016. It has been a longstanding government policy that GP-care is not subject to the mandatory deductible. Simultaneously, the healthcare allowance, a financial compensation for people on lower incomes, increased. To what extent the increase in the deductible has led to patients avoiding necessary care is the subject of discussion between providers and government. A recent report found that of the people who reported they had foregone GP care (15% of the respondents in 2014/2015), only one out of five mentioned financial considerations as a reason, a percentage that has been stable since 2009. The percentage of persons who did not follow-up a referral increased from 20% in 2009 to 27% in 2013. Follow-up care is subject to the mandatory deductible. It is not clear why these people refrain from seeing a medical specialist (van Esch et al., 2015). Secondly, several treatments have been removed from the basic benefits package, including: the first 20 sessions of physical therapy for people with chronic conditions (for healthy people physical therapy was removed long ago); sleeping pills and tranquillizers (except for severe cases); statins; gastric acid blockers; stand-up-chairs; walkers and simple walking aids (Kroneman & de Jong, 2015). Furthermore, in 2014 several financial compensations for chronically ill or disabled people were abolished, such as partial compensation for the mandatory deductible and for the extra expenditure due to their condition. Municipalities may decide to provide such compensations under Wmo 2015 but are not obliged to do so.

In the first years after the reform, healthcare expenditure still increased at a higher rate than was expected (or desired). From 2008 the Minister of Health initially tried to curb these expenditures by charging back over-expenditure from the providers by having them pay back a fixed percentage of revenue, without differentiation towards high- and low-cost providers. This appeared to be ineffective and was perceived as unfair by those providers that had been cost-efficient. Therefore, from 2011 onwards the Minister of Health, together with the umbrella organizations of providers, insurers and patients, reached agreements on targets for cost-containment and improvement of quality of care (see Section 3.1). Health insurers should better use the selective contracting tool and together with hospitals work on a better concentration and distribution of hospital care. Overcapacity should be reduced and pharmaceuticals prescribed more rationally (Ministry of Health, Welfare and Sport et al., 2011).

A massive protest among GPs led to an agreement between health insurers and GPs in 2015 restoring, inter alia, their prescribing freedom and relieving the administrative burden (Steenbergen, 2015). Furthermore, the Consumers and Markets Authority has started allowing collective GP negotiations as long as it is in the interests of the patient.

Over the years several types of care were transferred from the (former) Exceptional Medical Expenses Act to the Health Insurance Act, such as curative mental care in 2008, geriatric rehabilitation in 2013 and home nursing care in 2015, resulting in a broader basic benefits package. In addition, a shift also took place within the Health Insurance Act: parts of outpatient pharmaceutical care were shifted from pharmaceutical care to medical specialist care. Several expensive medicines (TNF-inhibitors in 2012, expensive oncolytica and growth hormones in 2013 and fertility hormones in 2014) have been excluded from the medicine reimbursement system (*GVS*; see Section 3.3.1) and now have to be paid from the hospital budget. The reasons for this shift were: (1) to make clear who was responsible for these medicines; in practice it was not always clear whether a drug should be seen as part of hospital care or as part of outpatient pharmaceutical care; (2) to give medical specialists control of medicines that are part of a medical specialist treatment; and (3) to improve adequate purchasing of these medicines. The consequence for patients is that they have to go to hospital to obtain their medication, instead of to the local pharmacy. A study among patients and healthcare providers revealed that most of them are satisfied with the change, and they have experienced an improvement in communication (van der Burgt, Lescure & van Dijk, 2015).

6.1.4 Impact of the 2006 reform

The outcomes of the acute care sector reform on population health are described extensively in Chapter 7.

The reform has not been very successful in curbing the costs of healthcare provision. Table 6.1 shows the overspending of selected sectors of care for the period 2007–2012, while Fig. 6.1 shows overall spending in the health system for the period 2005–2014. The only sectors in which a reduction of costs was realized were the pharmaceutical sector and public health. This is mainly due to the preferred medicine policy of health insurers (see Section 3.7.2) and cuts in the public health budget. One explanation for the growing expenditures is that insurers lack the tools, expertise and meaningful data to become effective care purchasers and to influence providers to reduce their costs. Furthermore, although the reform has reduced prices of hospital care, these gains were not translated into lower costs, but were compensated for by hospital care providers with a higher volume of care (Schut, Sorbe & Hoj, 2013). Another explanation lies in the higher than legally required financial reserves that insurers were holding. The latter received a great deal of attention, especially after the expected premiums for 2015 were announced, which were, on average, almost 10% higher than in 2014. Insurers argue that they need these reserves because they are bearing more risk, but several critics (the media, politicians and consumer organizations) demanded that these reserves should be used to lower the 2015 premium. Another argument for insurers to have higher reserves was the introduction of the Solvency II directive, implemented in 2016. Besides, higher premiums were necessary because of the shift of care from the former Exceptional Medical Expenses Act to the Health Insurance Act. Against expectations, the actual average premium for 2015 (€1158 yearly) appeared to be only a little higher compared to 2014 (€1098), but still lower compared to 2013 (€1213) (Dutch Healthcare Authority, 2015d). After 2012 cost growth flattened due to the sectoral spending agreements and preferred medicines policy (Vandermeulen, 2014).

Table 6.1

Overspending* in healthcare, 2007–2012 (in € millions)

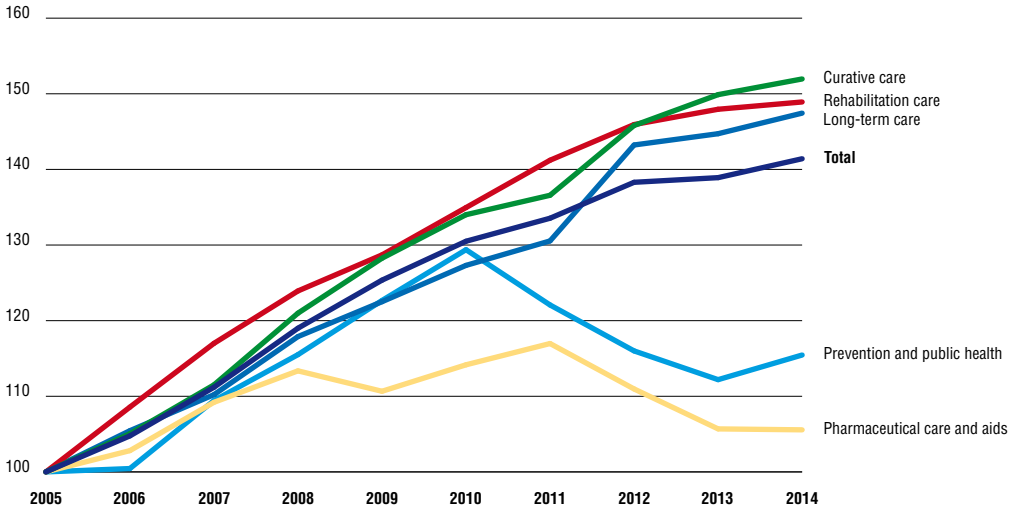
	2007	2008	2009	2010	2011	2012
GP care	356.4	134.4	50.8	204.3	168.6	231
%	*20.6%*	*6.8%*	*2.3%*	*10.1%*	*7.6%*	*11.0%*
Medical specialist care**	301.8	113.8	832.3	401.6	246.5	63
%	*17.6%*	*6.3%*	*52.4%*	*23.9%*	*13.3%*	*3.2%*
Use of hospital facilities***	585.9	–58.3	413.5	869.9	910.2	324
%	*12.8%*	*–0.4%*	*2.9%*	*6.1%*	*6.0%*	*1.9%*
Pharmaceutical care	30.1	28.2	–177.5	–306.7	–298.2	–710.6
%	*0.6%*	*0.6%*	*–3.3%*	*–5.6%*	*–5.3%*	*–13.2%*

Source: Batenburg, Kroneman & Sagan, 2015.

Notes: * Overspending = difference between the actual amount spent and the amount foreseen in the budgets in € millions and as a percentage of the foreseen amount; ** Medical specialist care refers to care provided directly by medical specialists, both in ambulatory and inpatient settings. *** Use of hospital facilities refers to the use of hospitals' hotel facilities (e.g. beds and food) but also provision of, inter alia, nursing care and the use of laboratory facilities.

Fig. 6.1

Indexed growth in healthcare expenditure per sector (2005 = 100)



Source: Statistics Netherlands, 2015a.

Note: Data for 2013 and 2014 are provisional.

The free choice of healthcare provider is seen as an important means to improve quality, but in practice citizens hardly make use of this right. People tend to go to the nearest hospital and to the provider that is recommended by their GP. People use the internet to search for information on health and diseases,

but they hardly use the available information to choose a healthcare provider. Almost half of the Dutch population (48%) do not have sufficient knowledge, motivation or self-confidence to take an active role in managing their condition (van Esch et al., 2015). Furthermore, in 2014 the umbrella organization of Dutch patient associations (Patient Federation, NPCF) revealed that according to their data, in practice changing is not always feasible. From 1100 patients (about 10% of the respondents) who wanted to switch, only one-third were successful in doing so (NPCF, 2014a). Although people do not always make use of their right to switch insurers, the threat that people or collectives (group contracts, see Section 3.3.2) *can* switch insurer stimulates health insurers to purchase efficient and good quality care. In practice, switching insurers by collectives seldom occurs (KPMG & Plexus, 2014).

Quality of care is not yet a leading subject in the negotiations between healthcare providers and health insurers. A reliable set of quality indicators is not yet available, despite the efforts made to develop such indicators (Court of Audit, 2013). Insurers tend to negotiate on volume and prices, and quality is of secondary importance (Kooiman, 2014). In 2015, for the first time since the 2006 reform, a contract between health insurer and hospital explicitly concerned improvement of quality outcome. The cardiology department of the Catherina Hospital and insurer CZ have developed a method to measure quality. If quality improves, the hospital receives an extra amount of money.

To summarize, the markets are functioning now as envisaged, since almost all transitional measures have been abolished. There are a few weak points, however, that need to be addressed. Quality of care is not yet a leading principle in the negotiation process, the focus of which is mostly on price and volume, although there have been some initiatives for a limited number of DBCs. The influence of the patient on quality is still rather weak: information on quality of care, freedom of choice of healthcare provider and the option to switch insurer because of quality issues is hardly used. On the other hand the threat of switching empowers the insured, especially collectives representing large groups of insured, to negotiate attractive packages often tailored to their group members. In the healthcare purchasing market there appears to be an imbalance. The four main health insurers (representing about 80% of the insured) have to negotiate with individual care providers. Whereas hospitals are merging to increase their negotiation power, many small providers, such as GP practices and physical therapy practices, were hitherto not allowed to combine their efforts and have their associations negotiate for them (van der Bom, 2014). However, since 2015 cooperation is allowed if it is in the interests of patients. In contrast, the evaluation of the Health Insurance Act in 2014 concluded that

there was an undesirable market power for healthcare providers, considering the excess growth, the high income levels of GPs and medical specialists, the lack of transparency and the existing practice variation (KPMG & Plexus, 2014). Irrespective of position, both views signal problems in the proper functioning of the market that need to be addressed. The introduction of managed competition has not yet brought a decrease in expenditure, although growth in expenditure has slowed down considerably over the years. The Minister had to reintroduce the traditional Dutch way of dealing with large societal problems, that is, through consensus-based economic and social policy-making (often called the "Polder-model"). Sectoral agreements between stakeholders and the Minister of Health were deemed necessary to curb the increase in healthcare expenditure.

6.1.5 Reform of mental healthcare: GPs in a central position

The new organization of mental healthcare

In 2014 mental healthcare was fundamentally reformed and is now organized in three segments:

1. Patients first have to visit their GP with mental complaints. If feasible, the GP will treat the patient with the help of a mental health practice nurse.
2. If the GP suspects a DSM-IV disorder, the patient is referred to the basic mental healthcare sector, which provides outpatient care for non-complex DSM-IV disorders. No out-of-pocket payments (other than the mandatory deductible) are required for this care in order that patients do not (1) forgo care due to financial considerations and (2) visit specialized care, where co-payments were lower.
3. For complex disorders, specialized mental healthcare exists. The first three years of outpatient care and inpatient care are financed under the Health Insurance Act. After this period, care is financed under the Long-term Care Act (see Section 5.11).

The policy process leading to the 2014 mental healthcare reform

The developments in the past 20 years in the mental healthcare sector are strongly related to the modernization and ultimately the abolition of the Exceptional Medical Expenses Act (AWBZ). Mental healthcare used to be a separate sector that was financed completely from the AWBZ. As early as 1998 the wish was formulated to integrate curative mental healthcare with medical specialist care and thus transfer its financing to the predecessor of the Health Insurance Act (Zvw), the Sickness Fund Act (ZFW). The Council for Public

Health and Health Care (RVZ) argued that there was no difference between curative mental healthcare and somatic care (Council for Public Health and Health Care, 1998).

The mental healthcare financing system was substantially reformed in 2008. The goal was to remove all mental healthcare other than long-term mental healthcare from the Exceptional Medical Expenses Act (AWBZ). The new regulations divided the financing system among three different sources: (1) mental healthcare with the emphasis on treatment and cure was transferred to the Health Insurance Act (Zvw); (2) long-term care (longer than one year) was still financed by the Exceptional Medical Expenses Act (AWBZ); and (3) public mental healthcare and social support was financed by the Social Support Act (Wmo), administered by the municipalities. Most mental healthcare could not be characterized as long-term care and the financing was thus transferred to the Health Insurance Act (Zvw). The Ministry of Health, Welfare and Sport estimated for 2008 that about 75% of the expenditure on mental healthcare would be covered by the Health Insurance Act (Zvw) and about 2% by the Social Support Act (Wmo) (van Hoof et al., 2008). As a consequence of these new regulations, curative mental healthcare is now financed through DBCs, based on the type and length of treatment, while long-term mental healthcare is based on care intensity and complexity.

For 2012 the Minister of Health introduced several measures to curb the growth in the mental healthcare sector after significant overspending occurred. Measures included, inter alia: introduction of extra out-of-pocket payments for patients; removal of the treatment of adaptive disorders from the basic benefits package; for long treatments a maximum of 18 000 minutes became applicable as a maximum tariff; a reduction from eight to five consultations covered under the basic benefit package for primary mental healthcare; and a government clawback amounting to €222 million from the sector in 2012 for the overspending in the years before, via the Macro Management Tool (*macrobeheersinstrument*) (Ministry of Health, Welfare and Sport et al., 2011, 2012).

Whereas the measures in 2012 were mainly one-directional, in 2012 the Minister of Health negotiated with the mental healthcare sector for a new agreement, in line with the previously concluded agreements for GP care and hospital care. The 2012 agreement, covering the period 2013–2014, aimed to safeguard the quality and financial affordability of mental healthcare. The goal was to organize care closer to the patient, by shifting care, when feasible, from specialist care to general care, from general care to GP care and from GP care

to self-care (see above). The number of inpatient beds should be decreased by one-third, while care should be provided at home as much as possible (Ministry of Health, Welfare and Sport et al., 2012). Generic measures to claw back overspending are the ultimate measure when cost-containment targets are not met by the sector. It was agreed that yearly growth (excluding the growth in salaries and inflation) should not exceed the 2.5% in 2013 (Ministry of Health, Welfare and Sport et al., 2012), 1.5% in 2014 (lower than previously agreed) and 1.0% yearly in the period 2015–2017. This growth percentage is in line with demographic developments (Ministry of Health, Welfare and Sport et al., 2013).

Impact of the mental healthcare reform

A first evaluation of the new mental healthcare system revealed that substitution from specialist to generalist care seems to have been successful. Fewer patients use specialist care, while the number of patients treated in GP practice or basic mental healthcare has increased. The average expenditure on treatment for mental healthcare has increased now that it is provided as part of GP care. This is mainly explained by the fact that more GPs use the service of a mental healthcare practice nurse and charge a capitation fee for this care. Besides, the capitation fee for the mental healthcare practice nurse has increased from €1.97 per quarter of a year in 2013 to €2.73 per quarter in 2014 for every listed patient. As a result, costs have increased more than proportionally. Average treatment costs have also increased in basic and specialized mental healthcare. This may be explained by downward substitution (in other words, more severe cases have been treated compared to the former situation). Between 2011 and 2014 the percentage of unique patients visiting their GP for mental and/or social problems has been rather stable, so no increase in demand was detected (KPMG & Plexus, 2015). The authors of the evaluation stress that conclusions have to be interpreted with caution, because of the short time since the introduction of the reform.

Long-term care: decentralization and promotion of care at home and self-reliance

The continuous growth in long-term care expenditure financed under the Exceptional Medical Expenses Act (AWBZ) has long been considered untenable. In 2014 expenditures under the AWBZ amounted to €27 840 million, which represents 29% of the total healthcare budget (*Budgettair Kader Zorg*) (Ministry of Health, Welfare and Sport, 2015d). Long-term care could become unaffordable due to population ageing and subsequent increases in demand. Furthermore, the economic crisis has resulted in an increasing budget deficit

and constraints imposed by the European Commission. Also the European Semester urged the Netherlands to reform long-term care. To keep the care affordable, a major reform was deemed necessary.

The new organization of long-term care and social support[6]

The AWBZ was introduced in 1968 as an insurance against excessive costs of residential care for persons with disabilities or severe diseases. Over the years the AWBZ was extended to many other kinds of care, such as home care (nursing care and partly domestic care, supportive care for people with mental disabilities, sheltered housing). For more information on past reforms of the AWBZ, please refer to the previous edition of the Health Systems in Transition review (Schäfer et al., 2010). Also the eligibility criteria for residential care had become very broad, resulting in a large number of people living in residential homes who, with adequate care, could probably stay in their homes. Therefore, access to residential long-term care became restricted to persons needing 24 hours per day supervision (either medically, functionally or because of their mental condition). All others should remain living in their homes.

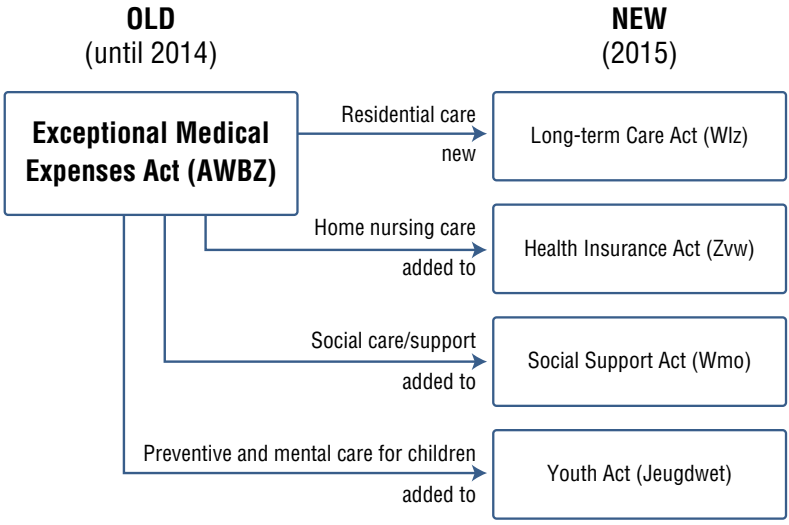
The reform of long-term care is based on the assumption that decentralization will lead to a more efficient organization of care. As municipalities are closer to the citizens, they are thought to be in a better position to make tailor-made, more efficient and cheaper arrangements for citizens than the care organized under the responsibility of the national government. A second important assumption is that in the past citizens relied too much on the welfare state. Citizens will have to be stimulated to take responsibility for their own care.

The old long-term care scheme (AWBZ) was split into four parts; three parts have been integrated into three existing laws and one new law has been introduced (see Fig. 6.2). Long-term care is now organized as follows: (1) if living at home is no longer possible, residential long-term care is available under the new Long-term Care Act (*Wet langdurige zorg*, Wlz); (2) insurers are made responsible for home nursing (which includes personal care), which is now part of the Health Insurance Act (*Zorgverzekeringswet*, Zvw); (3) most forms of non-residential care (the social care part) were transferred to the municipalities and added to the Social Support Act (*Wet maatschappelijke ondersteuning*, Wmo); (4) preventive and mental healthcare for children was transferred to the completely revised Youth Act (*Jeugdwet*). The overall goals of this reform are to: (1) save costs, and thus keep long-term care affordable, starting with a

[6] This section is mainly based on van Ginneken & Kroneman, 2015.

saving of €500 million in 2015, reaching €3.5 billion annually by 2018; (2) keep people self-sufficient for as long as possible, especially given the high Dutch institutionalization rate; and (3) improve quality and coordination of care.

Fig. 6.2
Changes in long-term care



Source: van Ginneken & Kroneman, 2015.

Residential care: Long-term Care Act (new)

The new Long-term Care Act (Wlz) will replace the Exceptional Medical Expenses Act (AWBZ) as the main scheme for long-term care but with a much lower contribution rate (9.65%, with a maximum of €3241 per year in 2015). It will nevertheless absorb by far the largest share of the funding previously allocated to the old Act. Clients who, due to their limitations (functionally or mentally), are in need of permanent supervision have access to 24-hour inpatient care. Eligibility will be based on a needs assessment. Eligible people who nevertheless would prefer to stay at home can apply for in-kind care provision at home (*Volledig Pakket Thuis*, VPT) or for a personal budget. Previously, budget holders could manage their own budget, but following concerns about fraud, a government body – the Social Insurance Bank (*Sociale Verzekerings Bank*, SVB) – now manages the budget on behalf of budget holders.

People who were already living in a residential home, but who do not meet the new, stricter entitlements, fall under transitional provision arrangements. This provision allows this group of individuals to retain their entitlement to long-term care for the rest of their lives.

Home nursing care (including personal care): the Health Insurance Act

Home nursing is now included under the Health Insurance Act, i.e. the curative care insurance scheme. With this shift, home nursing has moved closer to other types of primary care, such as general practitioner care. Health insurers become responsible for the whole medical domain, from home nursing care to specialist hospital care. Ideally, this would foster a better integration of care. District nurses will play a key role in keeping people in their homes. They will visit home nursing recipients and assess whether it is possible for them to be more self-reliant. These nurses combine their nursing tasks with improving the cohesion between prevention, care, well-being and housing. In addition, the Health Insurance Act will now cover the first three years of inpatient mental healthcare, before the Long-term Care Act takes over. Previously, it covered only the first year. The shift was accompanied by the abolition of the cost-sharing requirements. In addition, home nursing care is not subject to the mandatory deductible.

Social care: the Social Support Act 2015

The objective of the Social Support Act is that municipalities will support citizens to participate in society. This includes, for instance, domestic care, transport facilities, aids such as wheelchairs and house adjustments. According to the national government, municipalities will be better able to provide tailored solutions and to promote informal care than the previous regionally organized (via care offices) system. Part of this care was already transferred to the municipalities under the first Social Support Act in 2007. Municipalities first explore the opportunities for applicants to take care of themselves, with the help of their social network. If these are considered insufficient, publicly funded support will become available. Interestingly, municipalities are free to organize tailor-made support for their citizens, which may lead to different solutions among municipalities. The rights-based approach of the AWBZ has been replaced with a provision-based approach. For example, municipalities may choose to substitute professional care with other solutions, such as care provided by neighbours or volunteers, whereas in the previous situation eligible people had a right to professional social support and domestic care. Since municipalities are closer to their citizens and in a better position to

assess their needs, they are expected to organize care more efficiently by, inter alia, appealing more strongly to self-reliance. Thereby the state budget for non-residential long-term care will be lowered.

Long-term youth care: the Youth Act

The fully revised Youth Act, which came into effect in January 2015, makes municipalities responsible for care services targeted at parenting problems, developmental problems, mental health problems and disorders for all people under 18 years and their parents. Only those who are expected to depend on 24-hour supervision after they reach the age of 18 will receive care under the Long-term Care Act. The Youth Act intends to improve coordination of care by combining all care (except somatic care) into one Act and by making one organization, the municipality, responsible. Municipalities should install care and advice teams to reach this goal. In practice, a family experiencing problems will be assigned a care coordinator to ensure easy access to services.

The policy process leading to the 2015 reform

The time-frame of introduction of the 2015 reform was rather short. The first plans were published in the coalition agreement of the government in October 2012. The first elaboration of the plans was sent to parliament in April 2013. A further refinement was discussed in the healthcare commission of the parliament in December 2013. Finally, the new Youth Act passed parliament in October 2013, the new Wmo 2015 in April 2014, the amendment of the Health Insurance Act, concerning home nursing care, in July 2014 and the new Long-term Care Act in September 2014. Both health insurers and long-term care providers tried to postpone the introduction to January 2016, stating that the preparation time was too short, but this was not successful.

Impact of the 2015 reform

The long-term care reform comprehensively alters both the financing of care and the organization of care. The responsibility for the organization of care was shifted to organizations (municipalities, health insurers) that had little or no previous experience of organizing such care. Taking into account the short time-frame of the introduction and the assumption that from day one cost savings could be realized, it is not surprising that the introduction was accompanied with a great deal of social unrest. At the end of 2015 it is unclear whether the implementation problems are start-up problems or reflect more fundamental shortcomings.

In the run-up to the reforms, many stakeholders voiced important concerns, often relating to the short time provided to prepare adequately because uncertainties in the new legislation persisted well into 2014. Patient umbrella

associations worried that patients who are ineligible for residential care could not stay at home because of a lack of adequately adapted housing (NPCF, 2013a). The associations also feared the lack of coordination in provision, which, in the new situation, is split across separate institutional arrangements (municipalities, health insurers). Another concern was the position of informal carers, and that the new arrangements would make informal care an obligation (NPCF, 2013b). Health insurers were more positive about the reform, but they feared not being ready for its implementation as their financial systems were not yet adapted (Zorgverzekeraars Nederland, 2014). The association of long-term care providers was positive about the reform, but also feared that 2015 was too early and voiced concerns that it was unclear who is entitled to care.

Half a year after the reform was implemented, it is clear that the process has been far from smooth. Many of the concerns and fears voiced in 2014 have become a reality. There has been continued heated political debate and media coverage. A newly published report by the Netherlands Court of Audit (*Algemene Rekenkamer*) called the expected savings unrealistic (Court of Audit, 2015). Problems were reported with late payments to providers, made by the Social Insurance Bank (SVB) on behalf of budget holders, putting both the provider and the patients into difficulty. The SVB was not ready to fulfil this task, mostly due to inadequate staffing levels, computer system problems and increased numbers of applications for a personal budget. After apologizing to parliament for the chaos, the Ministry of Health will now allocate more funds to the personal budgets than originally planned. Patient umbrella organizations, which have installed a hotline where people can report problems, mention that in October 2015 there were still problems with access to care and with finding the right window to apply for care, and that needs assessments were mainly dealing with cost-containment instead of providing appropriate care. People report having to wait a long time before an application results in a decision for care (even longer than legally allowed). The provided care often does not meet the needs of the applicants. The patient organizations based their report on 10 821 complaints collected from June to October 2015 (Ieder(in), NPCF & LPGGz, 2015).

Another problem is the organization of domestic care (help with household chores under the Wmo), which has been the subject of a major funding cut. The government has set a savings target of 30% on the budget (Secretary of State of the Ministry of Health, 2014). Municipalities reacted in different ways: some abolished the provision of domestic care completely, some decreased the number of hours provided and some decided to keep the existing level of provision at the expense of other spending items in the municipal budget. To mitigate the

negative effects, a transitional measure was agreed by which municipalities can temporarily apply for a higher budget for social support. Many recipients of social support (about 3000 in June 2015) have filed complaints with the municipalities (de Koster, 2015) and in some cases people have sued their municipality. One court ruling stated that municipalities are not allowed to cut into domestic care provision without an in-depth investigation of the situation of the recipient.

Lastly, the closure of residential homes is a concern because they also provide day care and meals to people living in the neighbourhood (Actiz, 2014). Municipalities felt that the new Social Support Act provided an opportunity for a broad and cohesive support package for citizens, but were concerned about a lack of funding and instruments to stimulate the self-reliance of citizens. The cooperation with health insurers and home nurses was another source of concern (Association of Netherlands Municipalities, 2014).

Psychosocial youth care

The reform of psychosocial youth care sought to concentrate the responsibility of all mental healthcare and help with parenting for children and their parents into the municipalities. Youth care used to be scattered over several levels of government and organizations, leading to fragmented care provision, where care providers were not always aware of the involvement of other care providers in the same case. Therefore, as of 2015, municipalities have become responsible for most preventive and mental healthcare services for youth and their parents. This includes services targeted at parenting problems, developmental problems, and mental problems and disorders. With the shift of psychosocial care for youth to the municipalities, and with that the adoption of one legal framework and one financing system for youth care, the government aims to ensure that:

1. the youth psychosocial care system is clear and straightforward and enables a faster and more effective organization of support and care;
2. cooperation between local youth care providers is more effective;
3. there is a more explicit focus on prevention; and
4. care has to be purchased by municipalities.

The patient pathway for youth care can be described as follows: When parents or members of their social network experience or signal problems with their children, they can contact a gatekeeper (often a general practitioner or a professional at one of the municipal centres for youth and families or one of the newly created municipal youth care teams). These gatekeepers will offer support and care by themselves as much as possible. The focus of the gatekeeper

will be on timely prevention and empowerment of parents and children in order to minimize referrals to specialized care. When parents do not succeed, or the safety and development of a child is at risk, the municipality has to decide whether (and which) specialized services are needed for the child and their parents. Many municipalities have installed youth care teams, which assess the need of the family for support and, if necessary, provide this support.

The policy process leading to the youth care reform

The transition reflects the changing views, attitudes and approaches of professionals and policy-makers, who believe that the starting point of care is the parents and their child. The transition and transformation of the Dutch youth care system is laid down in the Youth Act, which was adopted by the Dutch parliament in 2014. The aim of the Youth Act is to empower the child and their parents and others in their social environment. The ultimate goal is a safe and healthy environment to grow up and optimal participation in society of children and young people.

It is intended that municipalities organize the care as close as possible to the child and their parents. However, in some cases it will not be possible to achieve this because of the nature or severity of the problems. In that case, cooperation between municipalities on a subregional level will be considered (Clarijs, 2014; Overheid.nl, 2014).

Impact of the youth care reform

A first evaluation of the Youth Act in the spring of 2015 found the following concerns. First, the administrative burden for youth care providers has increased due to the variation between municipalities in terms of care products for which the providers can bill the municipality. There are, however, also a few initiatives with population-based financing, which decreases the administrative burden (van Rijn & Dijkhoff, 2015). Second, the Monitor Transition Youth (*Monitor Transitie Jeugd*) records problems mentioned by clients. The main problems are related to information provided by the municipality on the continuation of care. Parents complain that they are sent from pillar to post. Parents also complain about untimely decisions concerning the (continuation of) their personal budget and that they are facing reduced personal budgets without clear explanations. Some clients do not feel heard or taken seriously. Furthermore, the privacy of clients is not well regulated. Since August 2015 municipalities may receive information from the care provider about the treatment of a client in order to check the legitimacy of the bill. It is not clear whether all municipalities handle this sensitive information carefully (Monitor Transitie Jeugd, 2015).

6.2 Future developments

Now that the key reforms since 2006 have significantly changed the organization of healthcare in the Netherlands, future health policy will be mainly directed towards fine-tuning and optimizing the reforms: the focus will remain on improving quality and containing costs.

6.2.1 Improving quality of care

The government has sought to improve care quality in various ways; initially, for example, by limiting the free choice of providers and giving insurers more tools to steer patients to selectively contracted providers (see Section 3.3.4). This led to a great deal of protest and a change of plans that ensured a free choice of primary care provider. The changes necessitated an amendment of the health insurance act and were approved in parliament in June 2014. In December 2014 the changes failed to pass the Senate (National Association of GPs, 2015). In 2015 the Minister of Health gave up the idea to change the law, but decided to introduce measures within the limits of the existing law that promote quality of care and aim to direct patients to good quality healthcare providers. The plan is called "Quality pays off" (*Kwaliteit loont*).

The main aims of the "Quality pays off" measures are to strengthen the position of the elderly and chronically ill and to improve quality. The measures are:

- stimulating health insurers to give patients a reduction on the mandatory deductible if they visit contracted providers, a measure that had already proved successful in encouraging patients to use preferred medicines;
- amending the risk adjustment system in such a way that it becomes attractive for health insurers to sell health plans to chronically ill persons and provide them with high-quality care;
- not charging providers that have a contract based on quality and price for overspending, thus incentivizing these quality-based contracts;
- developing quality standards, especially for the mental healthcare sector;
- giving the insured more influence on the policy of their health insurers; and
- counteracting mergers that led to further consolidation among healthcare providers.

Most of these measures are planned to come into effect in 2016 (Ministry of Health, Welfare and Sport, 2015a).

6.2.2 Promotion of informed decision-making by patients

Transparency remains a key issue in the Dutch healthcare system, since citizens can only make informed decisions if they have access to clear and comprehensible information. Currently there are many different health plans, which are difficult to compare. The Dutch Healthcare Authority plans to investigate whether this hampers the proper functioning of the market (Dutch Healthcare Authority, 2015b). In 2015 the Minister of Health agreed with Health Insurers Netherlands, the umbrella organization of the Dutch health insurers, to improve comparability of information for the insured population. Insurers should provide standardized information on the profit they make, the composition of the premium, whether financial reserves have been used to lower the premium, and the different conditions across offered health plans. In addition, they should clearly communicate that all citizens are accepted for the basic package. Furthermore, health insurers plan to make switching easier for persons who use medical devices or disposables by automatically adopting the authorizations of the former insurer. Lastly, health insurers decided to include care products (actual provided care) within the DBC on the patient's bill (Ministry of Health, Welfare and Sport, 2015b).

The Dutch Healthcare Authority is working on regulations that target clear communication on which care is subject to the mandatory deductible and on making transparent beforehand what will be the cost of treatment. Furthermore, the Authority is planning to bring in regulation of web sites that compare health plans, to make the information more reliable and comparable. In the first years after the reform, a government-funded agency provided a web site that compared health plans and providers, but more recently the site has only provided information on providers, since sufficient comparative information on health insurers was available on commercial web sites. However, commercial sites differ in the way they select and present their data, resulting in different results for similar requests for comparison, and the selection criteria are not always clear.

6.2.3 Prevention of fraud

Prevention of fraud in the sense of illicit billing (such as upcoding or billing non-provided care) by healthcare providers is a continuous point of attention. A point of discussion is medical confidentiality: which data should be available to

health insurers and payers of long-term care to be able to check the bill, and to what extent does that conflict with the interests of the patient, who may expect medical confidentiality from the healthcare provider.

6.2.4 Changes in long-term care

For the 2015 reform of long-term care it is too early to speculate whether the Acts will be adapted, and if so, whether the Acts will appear to be effective after a period of habituation.

7. Assessment of the health system

The government distinguishes three main goals for the Dutch healthcare system: quality of care (effective, safe and patient-centred), accessibility to care (reasonable costs for individuals, travel distance and waiting times) and affordability of care (cost control). Although healthcare providers are responsible for the quality of care provided, the Dutch Minister of Health bears a "system responsibility" and is primarily responsible for the proper functioning of the system as a whole, including the conditions for high-quality care, accessibility for all, and the efficient use of resources. Dutch healthcare is easily accessible. Essential healthcare services are within easy reach for almost the entire population, and waiting times for most services have been decreasing and meet national standards for reasonable waiting times in most cases. The basic health insurance package and financial compensation through a care allowance protect all Dutch citizens against catastrophic spending, and out-of-pocket payments are low compared to most other European countries. In 2013, 91% of the population evaluated the quality of the healthcare system in the Netherlands as good. In 2009, 44% of the population thought that the quality of the Dutch healthcare system was better compared to the other EU countries. International comparisons show that the Netherlands has a low volume of antibiotic use, low numbers of avoidable hospitalizations and a relatively low avoidable mortality. National studies show that healthcare has made major contributions to the health of the Dutch population. Since the 1980s healthy life expectancy has increased by six or seven years, which is attributable mainly to the availability and uptake of improved healthcare services. Health expenditure has been increasing in the Netherlands since 2000. In the period 2000–2013, the average increase was around 5.5% per year. However, in recent years the increase has slowed considerably. Some indicators, such as the prescription of generics and the length of hospital stay, indicate improvements in efficiency over the past years, but the Netherlands is still among the European countries with the highest health expenditures per capita. To enable patients and consumers to

choose, the availability of relevant information is essential. Transparency has been high on the political agenda for several years. Currently, some successful initiatives have contributed to this transparency but much remains to be done. Key concerns are the lack of reliable quality indicators that are available to citizens and the fragmentation, inadequacy, inaccessibility and lack of clarity of record systems.

7.1 Stated objectives of the health system

The ambition of the Dutch Ministry of Health, Welfare and Sport is "to keep everyone healthy as long as possible and to restore the sick to health as quickly as possible". The Ministry also seeks to "support people with a physical or mental limitation and promote social participation". The motto of the Ministry is "The Netherlands healthy and well". In the past decade there has been an increased focus on social participation (Ministry of Health, Welfare and Sport, 2015e).

Throughout the last decades the healthcare policy of the Dutch government has distinguished three system goals: quality of care, accessibility to care and affordability. Quality of care contains the dimensions effectiveness of care, patient safety and patient centredness. Accessibility refers to (acceptable) costs, travel distance, waiting times and the extent to which the supply of care is responsive to the needs and demands of people. Affordability refers to cost control and efficiency of the system. A contained growth in expenditure should ensure that healthcare remains affordable for society and does not heap pressure on public resources and the national income (van den Berg et al., 2014b).

The continuous growth of healthcare expenditures has spurred repeated discussions on the sustainability of the health system and the need for major reform. An ageing population, an increase in chronically ill patients and, especially, the growing number of people treated in long-term care are expected to further increase both demand and health expenditures. It was thought that it would become increasingly difficult to guarantee the constitutionally based right of access to necessary medical care of good quality for all citizens. Against this background, a major reform in the curative care system was implemented in 2006 with the introduction of a managed competition model, which was later followed by comprehensive reform of long-term care in 2015 (see Chapter 6). With the introduction of market elements and the decentralization of the healthcare system, the main goals – quality, access and affordability – have remained unchanged.

7.2 Financial protection and equity in financing

7.2.1 Financial protection

The Dutch healthcare system obliges everyone living in the Netherlands to purchase basic health insurance. Health insurers in turn are obliged to offer basic health insurance at a community-rated premium, set by the health insurer, and cannot refuse any clients. In addition to this premium, Dutch citizens pay an income-dependent contribution (which is compensated by the employer).

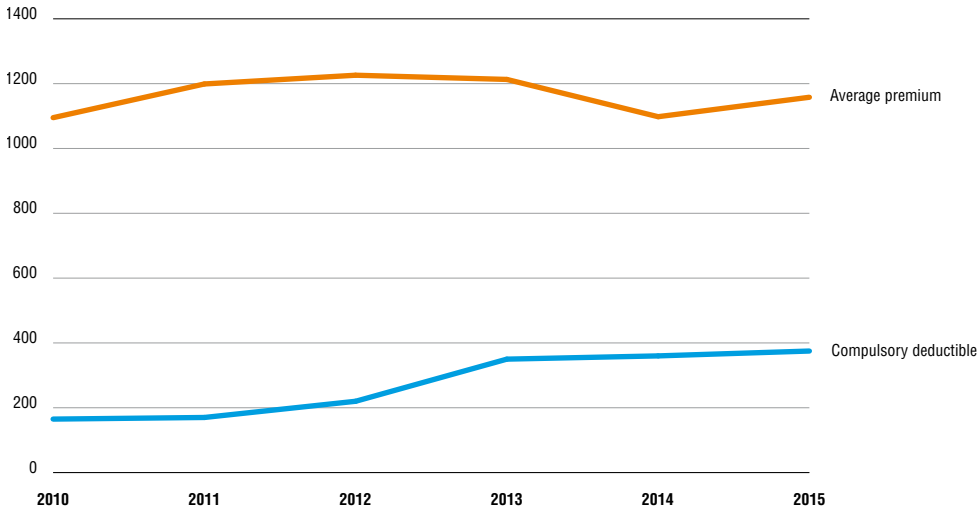
Health insurers offer different health plans, covering the same basic package but with different conditions and services. In most cases more expensive health plans offer greater freedom in choosing healthcare providers, whereas this choice is, in general, limited with the cheaper health plans. In 2014 the annual premium ranged between €905 and €1249. The difference in premium between the cheapest and the most expensive health plans has increased since 2013, due to an increase in cheaper health plans. On average, policy holders paid €1158 per year in 2015 (Dutch Healthcare Authority, 2015d). As shown in Fig. 7.1, after a relatively stable period the premium was lower in 2014 than in the preceding years, and increased slightly in 2015. Lower-income groups receive compensation for the premium through a care allowance. The level of the allowance depends on income. In 2015 the maximum allowance amounted to €936 for an individual and €1788 for a multi-person household. Slightly more than one-third (36%) of the population receives some allowance.

In 2008 a compulsory deductible was introduced for all insured above 18 years of age. This deductible is set by the government and applies to all costs covered by the basic health insurance package, except general practice care, maternity care and home nursing care. This deductible increased over the years up to €385 per year for all individuals in 2016 (Fig. 7.1, figures until 2015). Chronically ill and disabled people are high users of care and services and are likely to have to pay the full deductible every year. Up to 2014, these groups were partly compensated for these costs. The level of the compensation was the difference between the average deductible paid by the chronically ill and the average deductible paid by non-chronically ill insured persons. This compensation was abandoned in 2014. Since 2014 people can apply for compensation and support at their municipality, based on the Wmo or the special support act. Municipalities have different policies towards the acknowledgements of such applications.

Since 2015, long-term care expenditures are covered by the Long-term Care Act; previously they were covered by the Exceptional Medical Expenses Act. People who receive residential or community-based long-term care have to make monthly co-payments. These co-payments vary between €195 and €620 per month for residential care and €19 per month for community-based care (Dutch Healthcare Authority, 2013). These co-payments have increased slightly through the years.

Fig. 7.1

Average premium and compulsory deductible in euro on annual basis, 2010–2015



Sources: Dutch Healthcare Authority, 2015d; Vektis, 2015.

7.2.2 Equity in financing

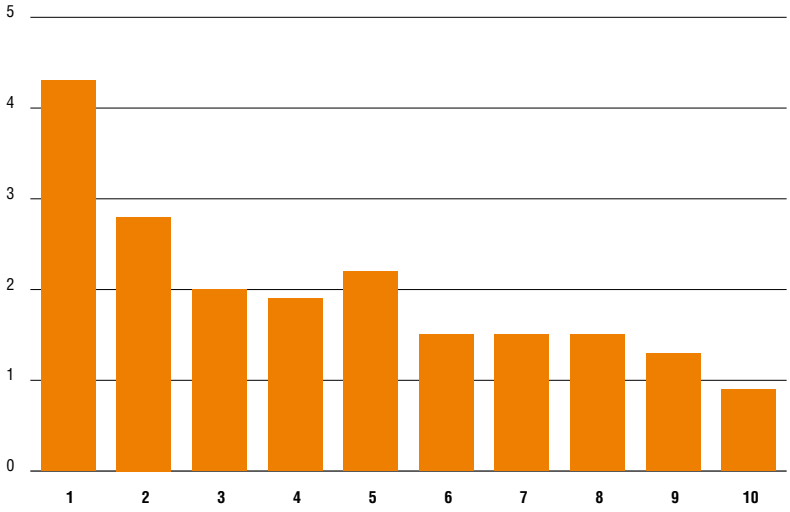
From an international perspective, Dutch citizens have relatively low out-of-pocket expenses for healthcare services. According to an international comparison by the OECD, out-of-pocket healthcare expenses in the Netherlands were the lowest of all the countries studied, claiming 1.5% of total household consumption expenditures. However, this figure does not include the Dutch compulsory deductible, which is also an out-of-pocket expenditure. In 2010 this totalled about €1.4 billion (van Ewijk, van der Horst & Besseling, 2013), which would translate into an additional one-half percentage point. That would put

the Dutch out-of-pocket expenses at around 2% of total household consumption expenditures, ranking the Netherlands between Germany and Japan, although still substantially below the OECD average, which is close to 2.9%.

Higher income groups also have higher out-of-pocket expenditures in absolute terms, but lower in relative terms. Fig. 7.2 shows the percentage of financial burden on ten disposable-income classes. Each class contains 10% of Dutch households, the first representing those with the lowest disposable incomes and the tenth those with the highest. In absolute terms, the tenth class has the highest average out-of-pocket expenditures (just under €1,350 per household per year), whereas the first group has the lowest expenditures (just under €450). This amounts to respectively 4.3% and 0.9% of the disposable household income. From 2006 to 2010 a slight increase in the percentage of the burden is observable in the lower income classes but not in the higher ones (van den Berg et al., 2014a).

Fig. 7.2

Out-of-pocket healthcare expenditures as percentage of disposable household income, by income decile (1 = lowest income, 10 = highest income), 2010



Source: Statistics Netherlands, 2015a; calculations by RIVM.

Those in the lowest income groups with out-of-pocket expenses include many old people in residential and nursing homes and people with disabilities living in institutions. These individuals may spend a substantial part of their

income on out-of-pocket payments but they do not have any housing expenses, which makes up a substantial share of expenses in other groups. People living in residential homes with a partner at home pay lower out-of-pocket expenses. According to the International Health Policy Surveys held in 2010 and 2013, the percentage of Dutch adults that decided to forgo healthcare services (consultations, tests or treatments) one or more times because of the costs involved increased from 6% to 22% over this period (Faber, van Loenen & Westert, 2013; Schoen et al., 2013). In 2013 some 18% had skipped dental care. A recent study showed an increase in the percentage of people not following up a referral from their GP from 18% in 2010 to 27% in 2013 (van Esch et al., 2015).

7.3 User experience and equity of access to healthcare

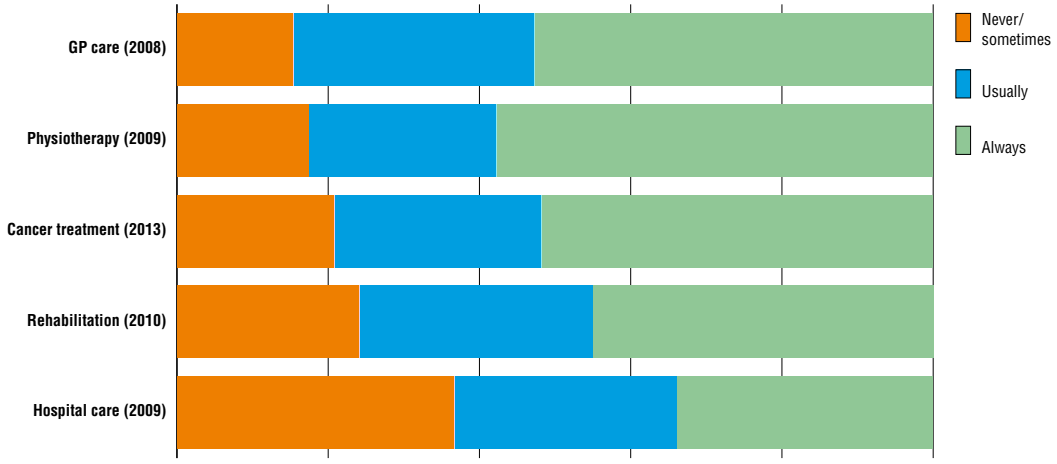
7.3.1 User experience

Patients' involvement in decisions

The question how often patients were involved in decisions about the treatment, care or support that they received was asked in a range of questionnaires targeting different patient groups. Fig. 7.3 shows five of these groups. Some 37% of hospital patients said they were never or only sometimes engaged in decisions.

Fig. 7.3

Percentages of patients in different patient groups that reported the extent to which they were engaged in decisions about the treatment, care or support they received



Source: van den Berg et al., 2014a (NIVEL CQ-index database).

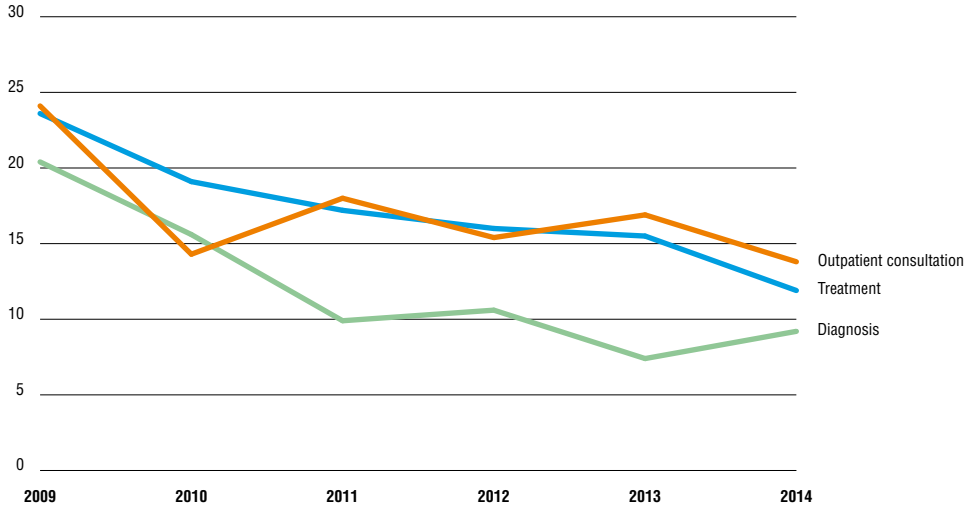
Waiting times

Since 1 January 2009 all Dutch hospitals have been subject to the Regulations Requiring Publication of Waiting Times for Medical Care, set out by the Dutch Healthcare Authority (NZa); this requirement was extended one year later to all specialist medical care providers. They are obliged to make monthly disclosures of their waiting times on their web sites. Distinctions are made between waiting times for consultations, for diagnostics and for medical treatment. These apply respectively to waiting times for an initial specialist consultation, for specified diagnostic procedures and for specified therapeutic procedures.

Health care providers and insurance companies have concluded agreements about acceptable waiting times in the Dutch healthcare sector. The maximum acceptable waiting times are referred to as the Treek standards. For an initial consultation, 13.8% of secondary care facilities (clinical specialties) reported that patients in late 2013 were subject to waiting times that exceeded the Treek standard of 4 weeks. That figure was lower than the 24.1% in 2009. The percentages exceeding the Treek standards for diagnostics (4 weeks) and for treatment (7 weeks) had likewise been sharply reduced since 2009, although the figure for diagnostics did show a slight upturn during 2013. Percentages since 2009 are shown in Fig. 7.4.

Waiting times can vary substantially between different medical specialties. However, only a few treatment types have structural waiting times that exceed the Treek norm (seven weeks). In 2013 only breast reconstruction, abdominoplasty and breast reduction showed waiting times of more than seven weeks. For elective procedures, waiting times show a declining trend between 2006 and 2012 and appear to be low in comparison with other countries (Siciliani, Moran & Borowitz, 2014).

Fig. 7.4
Percentages of secondary care units with reported waiting times exceeding the national standards, 2009–2014



Source: Mediquest, 2009–2014.

Continuity of care

Coordination of care for each individual patient is important. For the Dutch this service is provided by the GP. Nearly all Dutch people are registered with a GP. In other countries this proportion is significantly lower. According to 61% of the Dutch respondents, the GP knows the patient's medical background, which can be a good basis for the GP's coordinating role (Faber et al., 2013). Through the years, the Netherlands has strengthened primary care by enhancing continuity through improvements in IT services, as well as the coordination and comprehensiveness of care for chronic patients (Van Loenen et al., 2016). Continuity of care has been designated by the profession of GPs as a one of the cornerstones for future primary care in the Netherlands (LHV, NHG 2012).

Care coordination has also been studied from the patients' perspective. According to recent studies, about one in five patients with specific conditions (breast cancer, rheumatism, cataract) experienced either insufficient or a lack of coordination or cooperation between the healthcare providers (Brouwer et al., 2007; Damman et al., 2007; Zuidgeest et al., 2007). A study among patients with diabetes found that more than 25% experienced insufficient coordination by the GP (Rupp, 2006). Many patients appear to have doubts about cooperation

between healthcare workers. In a study from 2006, only 44% of respondents stated they were confident that healthcare providers were working well together (van der Maat & de Jong, 2008). Patient-perceived improvement scores for primary care in the Netherlands are low for accessibility, continuity, involvement and communication. For comprehensiveness a medium score was found (Schäfer et al., 2015).

Patient satisfaction

Looking at the healthcare system as a whole, about half of Dutch people thought in 2013 that on the whole the system works well. These figures were comparable with those of 2010. In 2007 people were less positive about the system, probably as a result of a major reform in 2006 (Faber, van Loenen & Westert, 2013); see Table 7.1.

Table 7.1

Overall satisfaction with the healthcare system

	2007	2010	2013
On the whole, the system works fairly well	42%	51%	49%
Fundamental changes are needed to make it work better	49%	41%	43%
The system needs to be completely rebuilt	9%	7%	5%

Source: Faber, van Loenen & Westert, 2013.

According to the Eurobarometer, in 2013, 91% of the population evaluated the quality of the healthcare system in the Netherlands as good. This did not change from 2009. In 2009, 44% of the population thought that the quality of the Dutch healthcare system was better compared to the other EU countries. In 2013 this increased to 55%. From a selection of criteria, the Dutch population mentioned well trained medical staff (mentioned by 66% of the respondents), treatment that works (46%) and healthcare that keeps you safe from harm (34%) as the three most important criteria when they think of high-quality healthcare. Free choice of doctor was mentioned by 11% only (TNS Opinion and Social, 2014).

7.3.2 Equity of access to healthcare

The Netherlands has an intricate network of healthcare suppliers and remote areas hardly exist (see Section 4.1 physical resources). Fig. 4.1 shows the locations of hospitals in the country and the average driving time to the nearest hospital for all places. Clearly, driving times that exceed 25 minutes are very rare. For the Islands in the north, a helicopter is available in urgent cases. Also

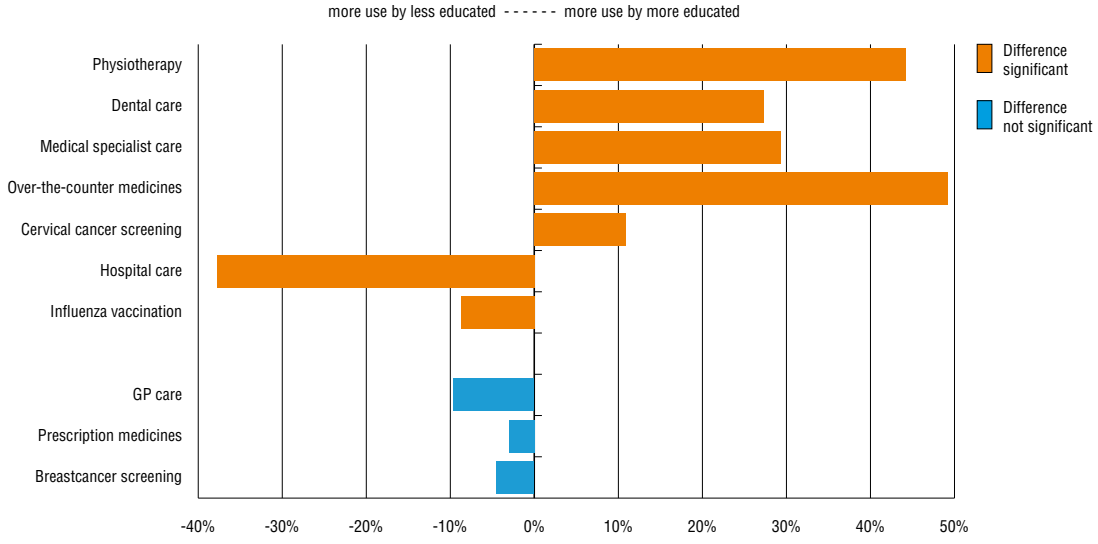
general practitioners are virtually always around the corner; less than 0.1% of Dutch residents live more than a 10-minute car journey from the nearest GP practice (van den Berg et al., 2014a).

The compulsory deductible (see Section 7.2.2) has increased over the years. The basic health insurance package and financial compensation through a care allowance protect all Dutch citizens against catastrophic spending.

Still, there are differences in the use of health services between groups with different education levels. This is shown in Fig. 7.5. The likelihood that more highly educated people would go to a physiotherapist was 44% greater than for less well educated people in a similar state of health. For a dental check-up it was 27% greater and for a medical specialist consultation 29%. For the use of over-the-counter medicines, the probability was nearly 50% higher. Women with more education had a greater likelihood of being screened for cervical cancer. People with less education, on the contrary, were 38% more likely to be admitted to hospital. They were also significantly more likely to report having had an influenza vaccination.

Fig. 7.5

Variations in healthcare utilization by educational level in the Netherlands: proportionally higher and lower use by the more highly educated as a percentage of use by the less highly educated, adjusted for age, gender and health status, in 2012



Source: van den Berg et al., 2014a.

Notes: Medical specialist care refers to medical specialist consultations, hospital care to inpatient admissions.

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

The Netherlands has several nationwide screening programmes and a national vaccination programme. Although participation is recommended, there are no mandatory screenings or vaccinations. The Netherlands sets no target rates for population screening, as participation in preventive interventions is a matter of individual choice. Some participation rates have been declining slightly in the past years, but most are still relatively high compared to many other countries. For more information, see Section 5.1.

The infant vaccination rate through the National Vaccination Programme is around 95% (National Institute for Public Health and the Environment, 2015c). The percentage of children up to the age of 4 years visiting child health clinics is very high (from 99% for children in their first life year to 85% for children aged 4 years old (figures for 2011–2013, Statistics Netherlands, 2015a).

The conclusion is justified that healthcare has made major contributions to the health of the Dutch population, particularly in more recent times. Since the 1980s healthy life expectancy has increased by six or seven years. The relatively rapid increases seen in life expectancy in the past decade are attributable mainly to the availability and uptake of improved healthcare services. In important respects healthcare has become more effective. This becomes apparent in many areas of healthcare, and particularly in the management of diabetes mellitus, pregnancy, cardiovascular disease and cancer (van den Berg et al., 2014a). In 2006 it was estimated that the total effect of healthcare in the Netherlands has increased the overall life expectancy by three to four years since the 1950s (de Hollander et al., 2006; Meerding et al., 2006).

Partly because of healthcare improvements and the ageing population, the prevalence rates of most types of chronic illnesses increased in the past decade. That growth is expected to continue. Early detection and improved treatment of diseases imply that people live longer with their illnesses. Although the number of chronically ill people has risen, the number of people with activity limitations has been relatively stable. The majority (65%) of people with chronic illnesses do not feel unhealthy and only 21% experience limitations (National Institute for Public Health and the Environment, 2015c; van der Berg et al., 2014a).

7.4.2 Health service outcomes and quality of care

The Netherlands is among the five wealthiest countries in the Eurozone (Eurostat, 2015b). Therefore the Dutch population has high expectations in terms of the quality of healthcare services. This section compares the performance of the Netherlands with other (high-ranking) OECD countries with respect to the quality of curative and long-term care, safety, continuity of care and the level of innovation.

Curative care

A substantial part of curative care takes place within primary care. Only a small fraction of patients who visit primary care are referred by their GP to the secondary care level (see Section 5.3). Despite a slight rise in the referral rate since 2001, Dutch GPs continue to be low referrers (Netherlands Institute for Health Services Research, 2015). In 2014, 28% of the population listed with a GP (which is virtually the entire population) was referred to secondary care (Prins et al., 2015c). GPs frequently prescribe medicines in accordance with professional guidelines, but guideline deviations are regularly seen for patients with certain health conditions, in particular cardiovascular disease and depression. Although antibiotics are still often prescribed by GPs, the frequency diminished from 2010 to 2012. Compared to other European countries, the Netherlands is among the countries with the lowest volume of antibiotics prescribed (ECDC, 2013).

The numbers of so-called avoidable hospital admissions for asthma, COPD and acute complications of diabetes mellitus are lower than in most other western countries, indicating that primary care and outpatient secondary care help to prevent serious symptoms from developing. The numbers of admissions for heart failure and chronic diabetes complications are less favourable, with the Netherlands scoring in the middle range. For people diagnosed with the types of cancer for which Dutch screening programmes are in place – breast, cervical and colorectal cancer – five-year relative survival ratios remained stable or increased mildly in the 2000–2011 period; in an international comparison, Dutch survival ratios for these forms of cancer are in the middle range (OECD, 2013; van den Berg et al., 2014a).

Of the patients aged 45 or older who were admitted to Dutch hospitals with an acute myocardial infarction (AMI) in 2010, 9.8% died within 30 days (either in hospital or after discharge). In-hospital mortality was 6.8%. From 2000 to 2010 the overall 30-day mortality rate (in-hospital or post-discharge) for patients

admitted to hospital with AMI decreased by 44%. Mortality is markedly lower in the Scandinavian countries – Denmark, Norway and Sweden (OECD, 2013; van den Berg et al., 2014a).

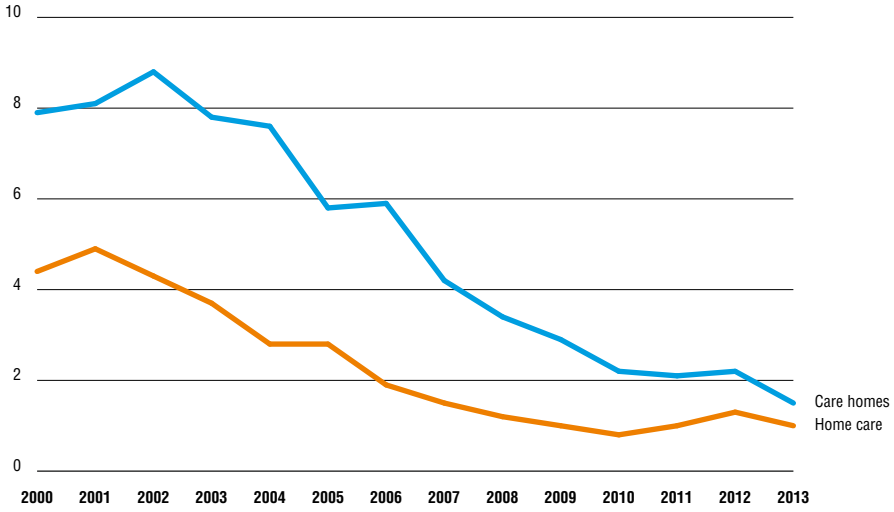
Mortality after admission for strokes shows a comparable pattern: a decrease over the years but still higher rates than, for example, Scandinavian countries, Spain and Austria. The Netherlands is among the middle third performers for mortality after admissions for stroke (OECD, 2015).

Long-term care

Long-term care has been high on the policy agenda. In particular, the high expenditures (the highest of all EU countries) and "shortage of hands", especially of qualified personnel, have frequently come up in political and public debate. In comparison to other care settings, people living in residential and nursing home facilities, and their representatives, were more likely to report negative experiences. One particular complaint involved a lack of time and attention on the part of staff: one-third of residential home residents reported that care staff never, or only occasionally, devoted sufficient time to them. In 2013 wide-ranging reforms were proposed to the Dutch system of long-term care and were finally implemented in 2015. Various functions were to be modified or transferred from the national government to the municipalities (see Chapter 6).

There have also been some favourable trends in previous years. A positive development is that the numbers of residential and nursing home clients staying in multiple-bed rooms have been substantially reduced. Other positive trends could be observed in the prevalence of avoidable problems in long-term care settings. The prevalence rates of pressure ulcers, malnutrition and malnutrition risks have all been reduced. The use of restraints still needs to be addressed; these are still widely applied in nursing and residential care institutions (Halfens et al., 2013). Fig. 7.6 shows the prevalence of pressure ulcers over the period 2000–2013.

Fig. 7.6
Point prevalence (percentages) of nosocomial pressure ulcers in categories 2–4 in home care clients and clients of care homes, 2000–2013



Source: Halfens et al., 2013.

Safety

According to an estimate based on a study carried out in 2011–2012, 7.1% of patients admitted to a hospital experienced adverse events, 23% of which were considered to be avoidable (Langelaan et al., 2013). In 0.06% of all hospital admissions, patients died of potentially avoidable causes; of all in-hospital deaths, 2.6% were potentially avoidable. If we extrapolate this to the 1.6 million yearly hospital admissions in the Netherlands, that comes to 968 potentially preventable in-hospital deaths. Compared to 2008, potentially avoidable adverse events reduced with 45% and potentially preventable in-hospital deaths with 53% as a result of the implementation of a nationwide safety improvement programme in all Dutch hospitals (Langelaan et al., 2013).

In a recent survey among the Dutch population above 50 years of age about safety in curative care, 8% of the respondents indicated that they had been subject to a medical error during the past year (Faber, van Loenen & Westert, 2014). The hospital standardized mortality rate (HSMR) has gradually decreased in the period 2007–2012 by some 34% (van den Berg et al., 2014a).

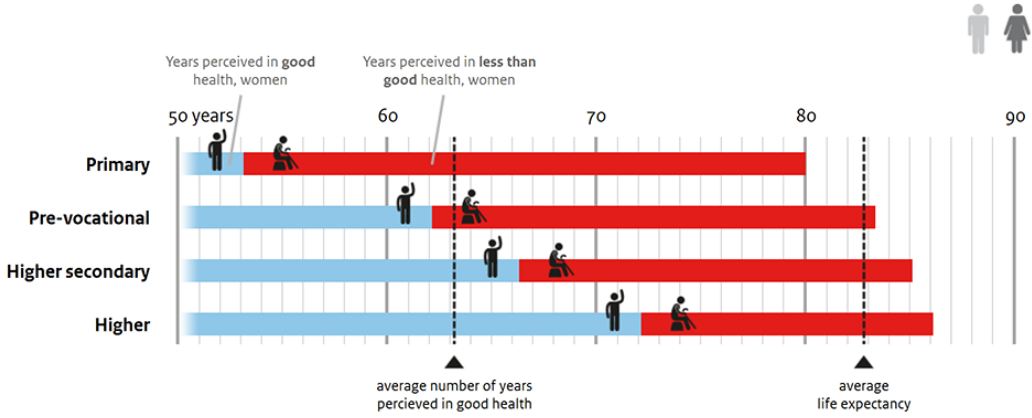
The prevalence of healthcare-associated infections in Dutch hospitals dropped from 6.2 per 100 hospital patients in 2008 to 3.2 per 100 in 2013. Variations were large, ranging from 0.0 to 6.7 per 100 patients for the 54 evaluated hospitals in 2013; these variations were attributable in part to the differences in patient populations (van den Berg et al., 2014a).

7.4.3 Equity of outcomes

Although various measures were taken to guarantee access to health services for everyone, gaps in health outcomes and risk factors between socioeconomic groups are persistent. For people with low levels of education, life expectancy averages six years shorter than for people with high levels. In terms of life expectancy in good self-perceived health, the difference is 19 years. More highly educated people also rate their own health much better: 86% experience their own health as good, compared to 47% of the people with the lowest educational level (National Institute for Public Health and the Environment, 2015c).

Several diseases show substantially higher prevalence rates among lower educated people compared to the highest educated. For instance, diabetes (18% vs 3%) and Arthrosis (34% vs 9%) (National Institute for Public Health and the Environment, 2015c). Specifically, diseases related to lifestyle factors, such as cardiovascular disease, show persistent gaps between socioeconomic groups (IGZ, 2009). An in-depth analysis of cancer treatment and outcomes showed that differences between socioeconomic groups in cancer risk, detection and survival rates were consistent with generally small absolute differences. These differences are largely due to lifestyle factors and gaps in health literacy (Aarts, 2012).

Fig. 7.7
Relationship between level of education and (healthy) life expectancy



Source: National Institute for Public Health and the Environment, 2015b.

7.5 Health system efficiency

7.5.1 Allocative efficiency

Allocative efficiency indicates whether current allocations of resources to healthcare meet the needs of the population. Health expenditure has been increasing in the Netherlands since 2000. In the period 2000–2013 the average increase was around 5.5% per year. However, in recent years the increase slackened to 2.5%, 4.3% and 2% in 2011, 2012 and 2013, respectively. In 2012 the health expenditure was 11.8% of GDP according to the international definition of the system of health accounts (OECD, 2015).

The Dutch system has, from a European perspective, only a small number of practising physicians; 3.1 per 1000 population, compared with 3.4 on average in the EU-28 in 2012. The number of nurses, on the contrary, is relatively high: 11.9 per 1000 population in 2012, versus 8 in the EU-28 on average. Among the EU-28 countries, the Netherlands is among the five countries with the highest nurses to physicians ratio (3.8) (OECD, 2014).

Health services are delivered through a dense network of premises, equipment and other physical resources (see also Section 4.1). Essential healthcare services are within easy reach for almost the entire population. On 1 January 2014 the Netherlands had 91 EDs open 7 days a week, 24 hours a

day (Kommer et al., 2015). Outside office hours, a total of 128 GP centres are operational and nearly 70% of the Dutch population could reach the nearest one within 15 minutes using their own transportation. The purpose of these out-of-hours GP centres is to provide medical care outside office hours to patients with acute needs that cannot wait until the next working day. In 2013, 99.6% of Dutch people resided within 15 minutes' reach of the nearest ambulance station; this includes a call-handling and dispatch time of 3 minutes. Reaching the nearest general practitioner, pharmacy or physiotherapist would take less than 10 minutes by car for more than 99% of the population. Driving time to the nearest hospital is less than 30 minutes for 99.9% of the citizens.

The Dutch healthcare system is largely based on regulated competition (see Chapter 6). This means that there is little central planning and markets are assumed to produce efficiency (Enthoven & van de Ven, 2007). The Dutch Healthcare Authority (NZa) plays an important role as the supervisory body for healthcare markets. The NZa supervises both healthcare providers and insurers.

The healthcare inspectorate functions as a watchdog for safe and responsible care. The inspectorate advises the Minister of Health and is entitled to far-reaching measures when patient safety is threatened or irresponsible practices are flagged up. The inspectorate uses several methods: inspection visits, enforcement and disciplinary measures, including closing of services, phased supervision, investigation of incidents and general monitoring based on indicators. The current performance of risk adjustment is good, but not good enough, according to van Kleef, Schut & van de Ven (2014). There are groups of patients for which overcompensation exists, but also groups for which undercompensation is the case. This may introduce the option of risk-selection by health insurers, by attracting patients with favourable risks. Furthermore, it may hamper the incentive to invest in quality of care for the under-compensated patient groups. However, overall, van Kleef, Schut & van de Ven conclude that the preconditions for managed competition have considerably improved compared to 2006 (van Kleef, Schut & van de Ven, 2014).

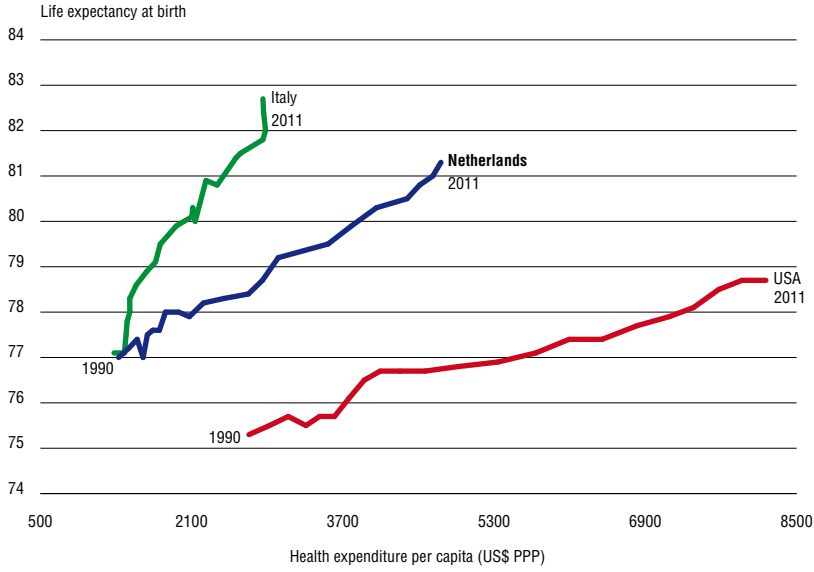
7.5.2 Technical efficiency

Life expectancy at birth is a frequently used measure of population health status and gives a rough measure of what healthcare systems produce. From 1990 to 2012 Dutch life expectancy increased from 73.8 to 79.1 years for men and from 80.1 to 82.8 years for women. In Fig. 7.8 we have plotted the combined life expectancy at birth for men and women against the Dutch per capita healthcare costs (in US dollars) from 1990 to 2011. The relationship is shown together with

Italy, which has a better life expectancy against lower spending, and the US, which has a relatively low life expectancy and higher spending (van den Berg et al., 2014a).

Fig. 7.8

Life expectancy (in years) against healthcare expenditure per capita (in PPPUS$) in Italy, the Netherlands and the USA

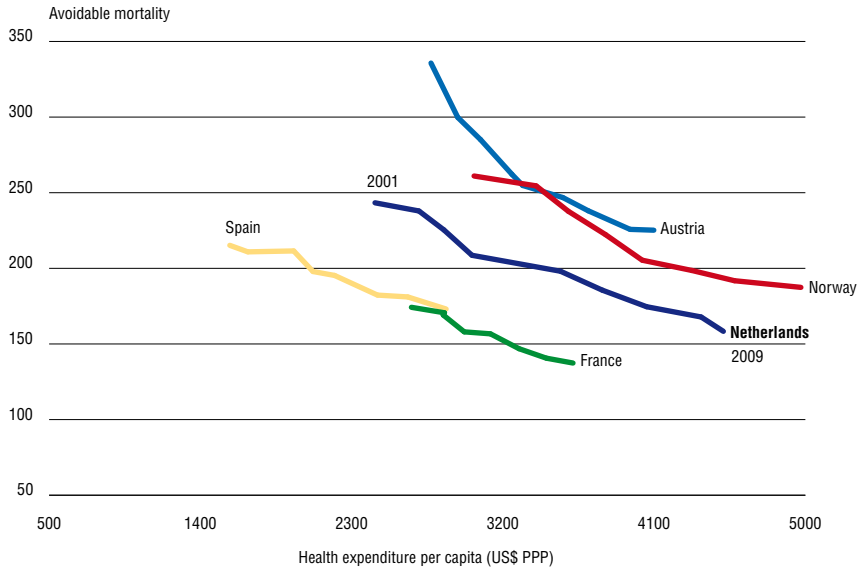


Source: van den Berg et al., 2014a.

Relating life expectancy with healthcare spending has some methodological problems; for instance, there are several factors outside the healthcare system that are of influence. Furthermore, life expectancy is not just the result of current spending, but also derives from policy in the previous years or decades.

Another critical performance indicator is avoidable mortality, which provides insight into the disease-related mortality that could have been prevented by treatment in line with the current level of care and scientific knowledge (Nolte & McKee, 2004). Fig. 7.9 shows the avoidable mortality per 100 000 population and health expenditure, 2001–2009. As the graph shows, higher health expenditures do not always appear to be associated with lower avoidable mortality. Although the Netherlands scores relatively well on this indicator, the return on healthcare investments is not yet optimal and there is room for improvement. For example, France realized a lower avoidable mortality with a lower level of health expenditure.

Fig. 7.9
Avoidable mortality per 100 000 population and health expenditure, 2001–2009, per capita in PPP-adjusted US$



Source: Plug, Hoffmann & Mackenbach, 2011; data processing, National Institute for Public Health and the Environment.

Other indicators for the efficiency of healthcare are avoidable hospitalization and unnecessary length of stay in hospitals. A hospital admission is labelled "avoidable" if it can be prevented by effective and accessible primary care services (van Loenen et al., 2014; Rosano et al., 2013). For a number of diseases, admissions are defined as avoidable in the literature (Weissman, Gatsonis & Epstein, 1992), for example, admissions for asthma, diabetes or COPD. In the Netherlands admissions for such conditions are relatively low (OECD, 2013).

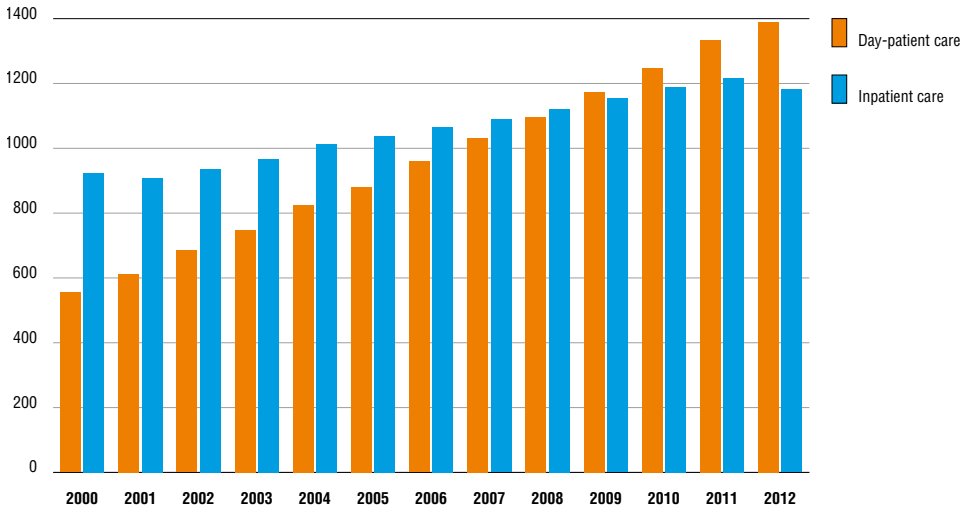
Although length of stay has been decreasing over the years in most countries, the decrease in the Netherlands has been particularly strong. From 2002 to 2011 the average stay in Dutch hospitals shrank from 7.8 to 5.3 days, bringing the Netherlands closer to the countries with the shortest lengths of stay, such as Norway and Denmark. Shorter stays have been brought about by new types of intervention, such as minimally invasive surgery, and the streamlining of patient care processes via clinical care pathways. If the intensity of care remains the same, shorter patient stays mean lower costs per hospital admission. Van de Vijsel, Heijink and Schipper (2015) investigated the potential for further reducing length of stay. They found that length of stay in individual hospitals did not correlate between diagnoses/procedures. Hospitals may perform well

in one area but worse in others, indicating the absence of a hospital-wide policy. The study showed substantial variations between hospitals within one diagnosis and concluded that there is still room for efficiency improvement implying lower costs per patient treated, raising the number of patients treated using the same capacity or downsizing the capacity.

The total number of hospital admissions has risen substantially since 2001, with a particularly sharp rise in day-patient admissions. As Fig. 7.10 shows, a rising number of patients were treated in one-day admissions; in 2000 this was 37% of all cases, in 2012 it was estimated at 54%. A study of IPSE (2011) showed that in the period 2003–2009, productivity increased more strongly than expenditures, meaning that the same number of admissions could be carried out at relatively lower costs. It remains, however, unclear to what extent this increased productivity has resulted in additional health gains (van den Berg et al., 2014a). The decline in inpatient admissions was steeper in small hospitals than in large ones (Dutch Hospitals Association, 2013).

Fig. 7.10

Dutch hospital admissions broken down by day-patient and inpatient care, admissions per 100 000 population, 2000–2012

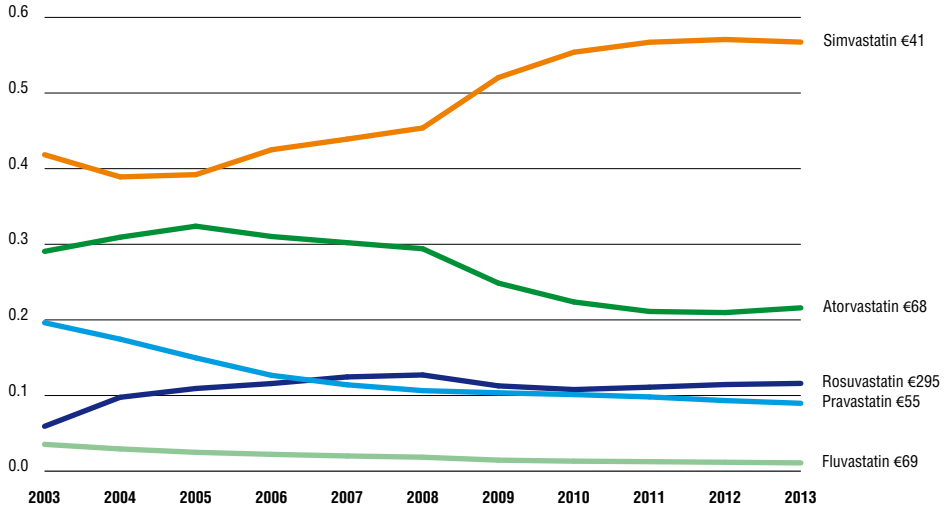


Source: Statistics Netherlands, 2015a.

Both the government and health insurers adopted policies to stimulate efficiency in pharmaceutical care, more specifically, the take-up of generic medication. Under the Medicine Prices Act (WGP), Dutch pharmaceutical prices are not to exceed the average prices in the neighbouring countries. The preferred medicines policies pursued by Dutch health insurance companies allow for reimbursement of the lowest-priced pharmaceuticals via the basic statutory package, provided their effectiveness is comparable to that of higher-priced preparations and they are suited to the same patient categories. This often favours generics above brand drugs. Since 2004 Dutch health insurers have been granted more powers in determining medication options, whereas that was previously the role of pharmacists. The WGP and the preferred medicines policies (see Section 3.7.2) have yielded efficiency improvements, as seen in the reduced costs per user. The former Health Care Insurance Board (CVZ) estimated that the 2012 volume of medicine consumption would have cost €3 billion more if prices were still at the level of 2004 (College voor Zorgverzekeringen, 2013). Fig. 7.11 shows an example of how the volume of prescribed lower priced statins increased over time, whereas the more expensive statins remained stable or decreased.

Fig. 7.11

Patients taking different types of statin as percentages of all statin users, 2003–2013 (with 2013 prices)



Source: van den Berg et al., 2014a.

7.6 Transparency and accountability

Although healthcare providers are initially responsible for the quality of care provided, the Dutch Minister of Health bears a "system responsibility" and is primarily responsible for the proper functioning of the system as a whole, including the conditions for high-quality care, accessibility for all, and the efficient use of resources. The Ministry of Health commissions several periodic publications that monitor the health of the population and the performance of the healthcare system. Every four years a state-of-the-art Public Health and Foresight Report is released, in which the most important trends concerning the health of the population are reported, as well as some future perspectives. The Netherlands started to develop a performance framework for the Dutch healthcare system in 2002, being one of the first countries in the world to do so (Delnoij et al., 2002; van den Berg et al., 2014a). This resulted in the publication of the first Dutch Health Care Performance Report (DHCPR) in 2006. Up to 2014, four editions of this report were released. The DHCPR is a monitoring tool presenting the performance of the Dutch healthcare system, based on a set of indicators for quality, accessibility and expenditures. Both publications are used for evaluation and accountability, as well as agenda-setting purposes, and are accessible for the general public[7].

Starting from 2016, a new periodic publication will be released, named the State of Public Health and Health care. It will comprise a web site covering a wealth of figures about Dutch health and healthcare, and will also contain performance indicators as previously reported in the Dutch Health Care Performance Report. A document on paper will be released annually in May.

Patient choice and patient rights have played an important role in Dutch health policy in past decades. Victoor et al. (2012) identified two main reasons for this, and call it both a goal in itself and a pre-condition: first, in the 1970s the Dutch government set itself the aim of explicitly developing policy on patients and legislation for patients' rights as part of the emancipatory developments. This political tendency meant that choice of provider gained importance as something patients valued. Secondly, during the late 1980s the instrumental use of patient choice gained importance. This occurred as part of a government plan to reform the Dutch health insurance system into a system in which regulated competition between healthcare providers and insurers is pivotal. Critically choosing patients are considered an essential pre-condition to let the market function and it was assumed to fuel quality and accessibility of healthcare.

[7] www.healthcareperformance.nl and http://www.eengezondernederland.nl/en/English_version

To enable patients and consumers to choose, the availability of relevant information is essential and transparency has been high on the political agenda for several years. The Dutch Minister of Health proclaimed 2015 "the year of transparency", stressing that there remained much to be done. A few studies were done to investigate the state of transparency in Dutch healthcare (e.g. Court of Audit, 2013; van den Berg, 2014a). Key concerns are the lack of reliable quality indicators that are available to citizens and the fragmentation, inadequacy, inaccessibility and lack of clarity of record systems. The drive to ensure transparency has by no means faltered. Initiatives have come and gone, and there are numerous examples of projects where intensive efforts are being made towards quality transparency. The recently established Institute for Health Care Quality (*Kwaliteitsinstituut*), which resides under the National Healthcare Institute, is set to play a major role in those efforts. This institute promotes the development of quality standards; helps to implement quality standards that have been drawn up and encourages the appropriate use of care; and ensures that citizens and other parties in healthcare have access to reliable information on the quality of care provided.

There are several web sites available where healthcare providers can be compared. www.kiesbeter.nl was launched in 2005. The Ministry of Health took the initiative for this web site. The web site was developed to provide independent information that could help the general public to choose a provider or health insurer. The web site contains information (in most cases about structure and processes) that is delivered by healthcare providers. Users can search for a specific provider or a specific condition. The web site is currently hosted by the National Healthcare Institute. The site www.zorgkaartnederland.nl is also useful, hosted by the Federation of Patient Organizations (NPCF). Zorgkaartnederland.nl also provides information about healthcare providers and aims to help the general public to make better choices. The information is mainly based on reviews that patients can upload. This site has around 751 000 unique visitors every month. Furthermore, there are several private initiatives and web sites for specific types of care or diseases. Also organizations of healthcare providers launched web sites on which information about providers is shared, such as www.ziekenhuizentransparant.nl/. Through this web site the Dutch Hospital Federation aims to make hospital care more transparent. The site mainly presents information collected by the Health care Inspectorate for accountability aims. According to the web site, however, the material is not suitable to use as benchmarking information. This is nevertheless done by a big newspaper which publishes a league table of hospitals every year.

Studies investigating the choosing behaviour of patients show that only a minority take quality information into account (van der Geest & Varkevisser, 2012).

8. Conclusions

Whatever the state and the prospects of the healthcare system, Dutch people are quite satisfied about their health status, when compared to the average in the EU-15 countries. However, this favourable position is not found when objective indicators are considered, such as overall life expectancy and mortality, which are around the average level. Although it is hardly possible to link health and mortality data to features of the healthcare system or to specific policy measures, it is likely that the decreased perinatal mortality has resulted from successful catch-up measures.

Nine years after the comprehensive 2006 insurance reform, another, probably more far-reaching reform was implemented in 2015. It was a response to the rapidly growing expenditure for long-term care in the Netherlands, resulting from population ageing and a generous legal coverage of long-term care.

The reform included a decentralization of the organization of long-term care (except home nursing) to the municipalities and encouraged citizens to rely more on their own resources and social network and less on publicly provided care. Health insurers became responsible for home nursing care.

The reform was implemented in a great hurry: the Act passed the parliament in September 2014, the Senate in December 2014 and came into effect on 1 January 2015. From the outset, the budgets for the municipalities were cut compared to what was available under the old AWBZ, based on the assumption that more tailor-made arrangements, with the use of available informal care, would result in savings. Care providers had to deal with many new purchasers, the municipalities, and diverse administrative routines.

The new organization and financing of long-term care included a shift from a rights-based scheme to a provision-based scheme. Under the Exceptional Medical Expenditures Act, people were entitled to care when positively assessed. Currently, care provided by municipalities assumes self-reliance

of citizens. Where care is not or insufficiently available, municipalities can provide assistance either through general services or by tailor-made solutions. The freedom they have to set their spending level has created possibilities for regional differences in the availability of publicly funded care.

For those in need of long-term care, the loss of clearly defined rights to care had far-reaching consequences. Developing self-reliance among citizens, in particular older people and their partners and relatives, requires a cultural change including a shift of values from government-centred to more family- and neighbourhood-centred. This takes time.

With the decentralization in 2007 and 2015 of parts of long term care to the Dutch municipalities, characteristics of a decentralised NHS-type system were introduced into the formerly completely SHI financed system. The shift to the municipalities of the organization of long-term care at home and the funding of this care from the general municipal budget turned this part of the system into a tax-based decentralised national health system. As a result, today, Dutch municipalities make care assessments and purchase professional care for their citizens with non-earmarked contributions from the national government.

Yet the 2006 reform also remains an important issue today. It replaced the division between public and private insurance by one universal social health insurance and introduced managed competition as a driving mechanism in the healthcare system. Although the reform was initiated almost a decade ago, its stepwise implementation continues to bring changes in the healthcare system in general and in the role of actors in particular. Some observations can be made concerning the current position of actors.

First, it cannot be concluded that the Dutch government has become less involved in healthcare since 2006. Rather, there has been a role change. Certain tasks have been taken over by new relatively independent structures, while the government has concentrated on facilitating, monitoring and intervening when necessary. It was necessary, for instance, when the government observed that the expected cost savings were not realized. The intervention of the Minister of Health was typically Dutch: all stakeholders (associations of providers, insurers and patients) were invited to negotiate an agreement on cost containment and future development of the sector. Such strategies create trust among stakeholders, which is required for the smooth functioning of the Dutch healthcare system.

Secondly, patients were expected to make informed choices for insurers and providers of care that best fit their needs. Choices made by critical patients should positively influence the quality of care. In reality, only a few patients

exercise these options but this may not necessarily be a problem. One reason for this lack of movement is the large variety of health plans that insurers currently offer. Many insured do not know which providers have or have not been contracted by their insurer. If more people would switch insurer after considering health plans and contracted providers, the question is how large this group should be to make insurers react. The current small group of active switchers gives a price signal, rather than a quality signal. Another reason is that differences in care quality may be too small to persuade people to choose between options. In the healthcare provision market, patients are not actively choosing a provider on the basis of information on the internet about quality of care, but rather they visit the nearest provider or the one recommended by their GP.

Thirdly, on the provider side, GP practices have evolved from rather simple to more complex organizations, including practice nurses specialized in care for people with chronic conditions and mental problems. The gatekeeping role of GPs has been strengthened by adding to their range of tasks care coordination for patients with chronic conditions and those with mental problems. Currently, task-shifting from secondary to primary care is increasing the workload in general practice and the future will show how general practices absorb this. Specialization among hospitals results in a concentration of complex treatments in a limited number of hospitals, which may improve quality but may also reduce accessibility. The identification of care products with a maximum price, and others which can be negotiated, has changed the remuneration of most providers and, within hospitals, has changed the relationship between the management and the medical specialists.

Fourthly, although consolidation among insurers has been a continuing trend for years (and intensified after the 2006 reform), insurers offer an increasing variety of policies, making it difficult for consumers to make a choice. Negotiation with healthcare providers on quality of care is still in its infancy but becoming more important. Currently, in negotiations with hospitals, considerations of quality are mostly limited to treatment volumes of complex or rare interventions, as mentioned in professional guidelines. As no new health insurers have successfully entered the health insurance market, it seems this market lacks openness. A new initiative (*Buurtzorg*), started in 2015, will in practice not be able to enter the market before 2017.

Lastly, power among actors in the healthcare market is not equally divided. Small care providers, such as GP practices and physical therapists, have complained that insurers will not negotiate with all small providers individually.

Yet small providers are not allowed to join forces in the negotiations as this would spoil competition. However, protests from the GPs and court rulings will likely lead to more flexibility at this point from the side of market supervisor ACM in the future. The ability of patients and consumers to take up an active role and make well informed choices remains a point of concern.

Summing this up, the Dutch healthcare system has not lacked decisiveness over the past decade – a trait that continues to be needed for troubleshooting and maintenance. Indeed, the freshly implemented long-term care reform will have to overcome its growing pains to realize the transition to less publicly provided care and more self-reliance on the part of the citizens. This needs to be achieved jointly by municipalities and the citizens. A particular point of attention is how the new governance arrangements and responsibilities in long-term care, particularly those of municipalities and health insurers, will fit together, without pushing away care to each other. The position of the 2006 reform is much more stable, but fine tuning is still needed and solutions need to be found where current market-based solutions are not yet effective. Yet friction seems to be growing between competition as the driver of the healthcare system and reforms that demand cooperation and integration among actors. Specialization among hospitals; substitution between secondary and primary care; integration within primary care and between primary care and social care; and seamlessly provided long-term care organized by municipalities are all examples of changes that require harmony and mutual trust. It may prove challenging to create these conditions in a system where competition is the ruling principle

9. Appendices

9.1 References

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9.2 Useful web sites

Association of Care Providers for Care Communication: www.vzvz.nl

Care Map Netherlands: www.zorgkaartnederland.nl

Dutch Healthcare Authority: www.nza.nl

Health Care Inspectorate: www.igz.nl

Healthcare Sector Guarantee Fund: www.wfz.nl

Health Council: www.gezondheidsraad.nl

Health Insurers Netherlands: www.zn.nl

Ieder(in): www.iederin.nl

National Government: www.government.nl

National Healthcare Institute: www.zorginstituutnederland.nl

Netherlands Institute for Social Research: www.scp.nl

Statistics Netherlands: www.cbs.nl/en-gb

www.eengezondernederland.nl

www.healthcareperformance.nl

www.kiesbeter.nl (in Dutch only)

www.nursing.nl

www.nvz-kwaliteitsvenster.nl (in Dutch only)

www.overheid.nl

www.volksgezondheidenzorg.nl (in Dutch only)

www.ziekenhuizentransparant.nl

www.Ziektekosten-vergelijken.nl

9.3 HiT methodology and production process

The Health Systems in Transition (HiT) profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources, and examples needed to compile HiTs. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/observatory/Hits/20020525_1

Authors draw on multiple data sources for the compilation of HiT profiles, ranging from national statistics, national and regional policy documents, and published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. OECD Health Data contain over 1200 indicators for the 30 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the World Health Organization (WHO) Regional Office for Europe for the purpose of monitoring Health for All policies in Europe. It is updated

for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2007 edition, the Health for All database started to take account of the enlarged European Union (EU) of 27 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT profile consists of 9 chapters.

1 Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.

2 Organizational structure: provides an overview of how the health system in the country is organized and outlines the main actors and their decision-making powers; discusses the historical background for the system; and describes the level of patient empowerment in the areas of information, rights, choice, complaints procedures, safety and involvement.

3 Financing: provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.

4 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which IT systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.

5 Provision of services: concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.

6 Principal health care reforms: reviews reforms, policies and organizational changes that have had a substantial impact on health care.

7 Assessment of the health system: provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care, and contribution of health care to health improvement.

8 Conclusions: highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.

9 Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following:

- A rigorous review process (see the following section)
- There are further efforts to ensure quality while the profile is finalized that focus on copy-editing and proofreading
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely to ensure that all stages of the process are as effective as possible and that the HiTs meet the series standard and can support both national decision-making and comparisons across countries.

9.4 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the research directors of the European Observatory. The HiT is then sent for review to two independent academic experts and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

The Netherlands HiT was reviewed by Reinhard Busse (Professor and Head of the Department of Health Care Management, Berlin University of Technology), Jouke van der Zee (Professor, Chair of Primary Health Care Research, Faculty of Health, Medicine and Life Sciences, Maastricht University), Hans Maarse (Professor of Health Care Policy Analysis, Faculty of Health Sciences, Maastricht University), Richard Heijink (Researcher, Dutch Health Care Performance RIVM, National Institute for Public Health and the Environment), Judith de Jong (PhD and Programme Coordinator, Health Care System and Governance, NIVEL), Leo Vandermeulen (PhD, Manager, Health System, Prismant, Research Institute for Health Care) and Henk Leliefeld (Senior Adviser, Advisory Committee Medical Manpower Planning (Capacity Body)).

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The Health Systems in Transition profiles

A series of the European Observatory on Health Systems and Policies

The Health Systems in Transition (HiT) country profiles provide an analytical description of each health care system and of reform initiatives in progress or under development. They aim to provide relevant comparative information to support policy-makers and analysts in the development of health systems and reforms in the countries of the WHO European Region and beyond. The HiT profiles are building blocks that can be used:

- to learn in detail about different approaches to the financing, organization and delivery of health services;
- to describe accurately the process, content and implementation of health reform programmes;
- to highlight common challenges and areas that require more in-depth analysis; and
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in countries of the WHO European Region.

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Austria (2001[e], 2006[e], 2013)
Azerbaijan (2004[g], 2010[g])
Belarus (2008[g], 2013)
Belgium (2000, 2007, 2010)
Bosnia and Herzegovina (2002[g])
Bulgaria (1999, 2003[b], 2007[g], 2012[b])
Canada (2005, 2013[c])
Croatia (1999, 2006, 2014)
Cyprus (2004, 2012)
Czech Republic (2000, 2005[g], 2009, 2015)
Denmark (2001, 2007[g], 2012)
Estonia (2000, 2004[gj], 2008, 2013)
Finland (2002, 2008)
France (2004[cg], 2010, 2015)
Georgia (2002[dg], 2009)
Germany (2000[e], 2004[eg], 2014[e])
Greece (2010)
Hungary (1999, 2004, 2011)
Iceland (2003, 2014)
Ireland (2009)
Israel (2003, 2009, 2015)
Italy (2001, 2009, 2014)
Japan (2009)
Kazakhstan (1999[g], 2007[g], 2012[g])
Kyrgyzstan (2000[g], 2005[g], 2011[g])
Latvia (2001, 2008, 2012)
Lithuania (2000, 2013)
Luxembourg (1999)
Malta (1999, 2014)
Mongolia (2007)
Netherlands (2004[g], 2010)
New Zealand (2001)
Norway (2000, 2006, 2013)
Poland (1999, 2005[k], 2012)
Portugal (1999, 2004, 2007, 2011)
Republic of Korea (2009)
Republic of Moldova (2002[g], 2008[g], 2012)
Romania (2000[f], 2008)
Russian Federation (2003[g], 2011[g])
Slovakia (2000, 2004, 2011)
Slovenia (2002, 2009)
Spain (2000[h], 2006, 2010)
Sweden (2001, 2005, 2012)
Switzerland (2000, 2015)
Tajikistan (2000, 2010[gl], 2016)
The former Yugoslav Republic of Macedonia (2000, 2006)
Turkey (2002[gi], 2011)
Turkmenistan (2000)
Ukraine (2004[g], 2010[g], 2015)
United Kingdom of Great Britain and Northern Ireland (1999[g], 2015)
United Kingdom (England) (2011)
United Kingdom (Northern Ireland) (2012)
United Kingdom (Scotland) (2012)
United Kingdom (Wales) (2012)
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Key
All HiTs are available in English. When noted, they are also available in other languages:
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[b] Bulgarian
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[d] Georgian
[e] German
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HiTs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.

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