Community healthcare in the Netherlands: the home care experience of Buurtzorg

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1. Health system overview

With more than 17 million inhabitants, The Netherlands in a densely populated country with an ageing population, 18.5% are over 65 with a life expectancy in good health well above the European average. Life expectancy at birth is 81.8 and infant mortality is 3.8 for 1000 live births in 2008. The prevalence of long-standing illness or disease is about average and the top five causes of death are ischaemic heart disease, lung cancer, stroke, chronic obstructive pulmonary disease, and Alzheimer's disease (Vos et al, 2020).

The Dutch healthcare system is based on mandatory social health insurance for all citizens. In 2006, the healthcare reform refined the model introducing a single compulsory insurance scheme for essential curative care with competition among multiple private health insurers.

Table 1. Demography, socioeconomic factors, health status and risk factors

	The Netherlands
Demography	
Population size (thousands)	17 131
Share of population over 65 (%)	18.5
Fertility rate	1.6
Socioeconomic factors	
GDP per capita (EUR PPP)	38 400
Relative poverty rate (%)	13.2
Unemployment rate (%)	4.9
Health status and risk factors	
Life expectancy at birth	81.8
Smoking	17%
Obesity	13%
Repeated drunkenness	-

Source: OECD 2019

Organisation and governance

The Ministry of Health, Welfare and Sport is responsible for defining the basic health insurance package and service tariffs, setting public health targets, and deciding the capacity in long-term care institutions. Local governments are responsible for long-term care, including home care services as set forth by the Social Support Act in

2007, and have a major role in public health, ranging from health promotion, screening and vaccination and youth health care.

Healthcare is organised around a strong primary care system with a gatekeeping function. Cooperation, coordination, and integration between primary care providers and with diagnosis and treatment centres is encouraged by health policies and primary care stakeholders. Innovation and entrepreneurship are driving forces in the Dutch health care to increase patient involvement in decision-making. As a result, hospital activity is comparatively low and efficient.

Since 2002 there has been 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.

Long-term care represents a significant share of total health expenditure (27%). Bed supply in nursing homes is well above the European average.

Table 2. Health system key indicators

	The Netherlands
Per capita spending (EUR PPP)	3 791
Health expenditure (% GDP)	10.1%
Public health funding (%)	81.5%
Out-of-pocket expenditure (%)	11.1%
Voluntary health insurance (%)	5.9%
Avoidable hospital admission (CHF)	180
Avoidable hospital admission (COPD and asthma)	248
Avoidable hospital admission (diabetes)	40
% reporting unmet medical needs	0.1
Practising doctors per 1000 population	3.6
Practising nurses per 1000 population	10.9
Number of doctor consultations per individual	8.7
Discharges per 1000 population	95
Preventable causes of mortality	134
Prevention	3%
Outpatient care	30%
Inpatient care	24%
Long-term care	27%
Pharmaceuticals and medical devices	12%

Source: OECD 2019

Financing

Health expenditure is over 10% of GDP and per capita spending is 3 791 euros. Health services are funded by a mix of obligatory social and private insurance, with additional co-payments for long-term care. Many social services with a focus on promoting the participation of disabled persons in society are financed from municipal funds.

Each year, the Ministry of Health, Welfare and Sports defines the total health care budget. Primary care doctors are reimbursed by health insurers within the pricing framework established by the government.

Health workforce

Primary care professionals in multidisciplinary teams and increasingly in larger organisational settings such as primary health care centres.

The availability of active GPs is relatively low in the Netherlands and task shifting from medical to nursing professionals is common, particularly for disease management programmes like diabetes mellitus or COPD. In 2017, the number of practising nurses per 1 000 population was 10.9, and the ratio of nurses to physicians was 3.0. This task transfer led to new occupations, such as practice nurses, nurse practitioners, nurse-specialists (who can also prescribe medicines) and physician assistants.

There are different nursing profiles. Registered nurses can have an intermediate, higher or academic level and are required to register in the BIG registry. The intermediate level of nurse education takes four years to become **general nurses**. The higher level of nursing education takes four years and results in the Bachelor of Nursing (BN) degree which prepares for more leading roles in patient care. **Nurse specialists** are qualified to treat specific groups of patients independently such as those individuals who are chronically ill, and must have a Master diploma (Master in Advanced Nursing Practice). **Enrolled nurses** are trained in a practice-based programme that takes three years to complete and are known as carers.

Primary care practice nurses are trained in a separate post-basic programme, which can take 1-2 years depending on their vocational diploma. District or community nurses have no dedicated training programme and are enrolled in the general 4-years nursing training.

Continuing education for nurses takes place at the discretion of the health care institutions where they are employed.

2. System enablers of community care

In 1993, the Individual Health Care Professions Act (BIG) regulated the registration and licensing of health professionals. The BIG register contains over 350 000 health care providers[1] (2021) and more than 180 000 are nurses. In 2009, five-yearly re-registration was introduced. To retain registration as a nurse, only a minimum requirement related to the number of hours worked needs to be met.

The Dutch Association of Nurses and Carers has developed a Quality Register for Nurses. On a voluntary basis, nurses can record their training and professional

[1] https://english.bigregister.nl/about-the-big-register

development activities online in a personal portfolio. This registry enables individuals to compare their skills with professionally agreed standards of competence.

In 2006 the Health Care Insurance Act was adopted in the Netherlands. Since 2015, long-term care has been reorganized and decentralized. Home nursing, personal care and long-term mental healthcare is now covered by the Health Insurance Act. Support care, day care and mental health for adolescents is part of the Social Support Act delegated to municipalities.

3. Service delivery

Population needs

Regional differences in demographic development have an increasing impact on the demand for health services. Some regions are ageing rapidly and face a relatively rapid decline in the population.
Around 59% of people with a severe or minor physical impairment receive informal domestic and nursing care and support in daily activities. It is common for older people to receive home care or be institutionalised in a nursing home when they cannot live independently anymore (Kringos and Klazinga, 2014).
In 2010, about 612 000 persons received home nursing care, about one-third of them females aged 80 years and over (Kroneman et al, 2016).

Scope of services

In primary care, GPs provide generalist care and are responsible for first contact care, treatment, follow-up care, medical technical procedures, disease management and preventive care. They cover a geographically defined population group living within 15 minutes of the practice. This facilitates public health, building a sound knowledge of the living, working and social environment of their patient population.
Nurses perform wound suturing, excision of warts, wedge resection, sebaceous cyst, removal of rusty spot from the cornea, fundoscopy, joint injection, insertion of IUD, intravenous infusion set up, and ankle strapping (Boerma et al, 2015)
Transfer of services from secondary to primary care such as diabetic care, COPD, cardiac risk management, has been possible, among other factors, by the introduction of practice nurses providing disease treatment programmes and reducing referrals by 40%.

Community care providers and centres

Most primary care doctors work in group practices with two or more practitioners (72%) while the rest work in single-handed practices. Multidisciplinary primary and community care teams include family doctors and GPs, community nurses, specialised nurses, practice nurses, home care nurses, physiotherapists, midwives, occupational therapists, speech therapists, dentists, community pharmacists, primary care psychologists, social workers, and dieticians. They conduct their practices in centrally located community health centres and diagnostic facilities.

Since 2008, practice nurses have worked in primary care practices to support GPs in a range of areas, including management of diabetes, mental health, and other aspects of chronic diseases. Supported by government policies, they also substitute medical tasks and provide check-ups for chronic care.

Most GPs and family physicians are self-employed and are paid by a mix of capitation and fee-for-service with bonus payments. GPs receive substantial additional payments when they work with a practice nurse and/or collaborates with other practices with patients from deprived areas. As a result, almost all general practices currently employ a practice nurse.

Primary care nurses, specialised nurses and home care nurses are employees paid by salary with no additional financial incentives. **Community nurses** are also employed by primary care practices to provide a link between patients, informal carers, healthcare providers and official bodies (Kringos and Klazinga 2014).

Home nursing care is provided by district nurses. **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.

Home care is provided to the chronically ill, people with dementia, and individuals in need of end-of-life care following their discharge from hospital. It encompasses medical treatment and nursing services, such as dressing wounds and giving injections, as well as personal care such as help with taking a shower or guidance on coping with daily activities.

Managing services and performance monitoring

Since the mid-1990s, organisations of nurses and allied health workers began to develop their own clinical guidelines and are regularly updated. Educational materials and tools have been developed to complement these guidelines.

GPs keep medical records using an electronic GP information system. Some practices have a care chain information system, a multidisciplinary information system set up for disease management programmes.

Box 1: Buurtzorg model of community nursing

Buurtzorg ("Neighbourhood Care" in Dutch) is a healthcare provider organised as a network of small autonomous teams, with a maximum of 12 skilled community nurses, who deliver high quality home care at low costs supported by an innovative IT system. The organisation works without managers and provides administrative support and regional coaching to the teams from one central back-office team. Currently, it employs more than 10,000 nurses (around 60% of Dutch community nurses) of organised in more than 900 teams that care more than 70,000 patients a year.

Video: Karin visit https://vimeo.com/131179351

Buurtzorg operates to achieve three levels of goals. At system level, cost-effectiveness, and fragmentation reduction. At patient level, restoring patients' independence and training patients and families in self-care. At professional level, granting autonomy to nurses and creating informal networks of neighbourhood resources to solve patients' problems.

Innovative model of care

The main innovation of the Buurtzorg model consists of shifting decision-making to the frontline and avoiding all forms of central management. This has led to empowered nursing teams to integrate families and neighbourhood organisations in holistic solutions for their clients.

Three components define the Buurtzorg model:

1. Self-governing teams of ten to twelve nurses providing both medical and supportive home care services.
2. An IT system relieving nurses of administrative tasks and allowing teams to self-monitor their performance.
3. Regional coaches promoting best practice and offering advice as needed.

Each team only operates at the neighbourhood level (covering approximately 10,000 people and 40 patients), which empowered nurses to go beyond the mere medical management of their patients. Buurtzorg's nurses are like "health coaches", who create sustainable solutions leading towards prevention and care independence.

Working round the clock closely with GPs, they organise all the supporting care, drawing in families, friends, and volunteers. They see themselves as "community-builders".

Performance

The home care social enterprise has been very successful in achieving consistently high patient and nurse satisfaction and reducing costly hospital stays, although it has had mixed results regarding net savings and long-term patient independence (Table 3).

From a health policy perspective, Buurtzorg has impacted how home care for elders is delivered and it would be expanded to all providers it would have a potential saving of 2 billion euros a year [Ernst & Young 2009].

In the Netherlands, the Buurtzorg model has expanded to other sectors such as welfare, youth care, mental healthcare, and maternity care. Furthermore, Buurtzorg has also been replicated in other countries such as United States, Japan, Finland, and Sweden.

Table 3. Buurtzorg results by domains

Domains	Results
Patients' satisfaction	30% above the national average between 2008 and 2013 Client rating 9.1 out of 10
Patients' quality of life	Care time is two months less than the national average to gain independence. Patients are admitted to nursing home at a lower age
Professionals' satisfaction	8.7 and 9 out of 10 in general employee satisfaction Dutch Employer of the Year five times between 2010 and 2016 Lower staff turnover compared to other care providers (10 percent as against 15 percent) Consistently lower sickness absence - at about half the industry average Higher home care productivity (58 percent of hours billed to care as against 51 percent in other companies).
Health system	Hospital admissions are reduced by one third. Reduced length of hospital stay. Overhead costs of 8%, compared to Dutch average of 25%

Sources: Ernst & Young 2009, KPMG 2015, Public World 2016

4. Challenges and needed reforms

In the last two decades, the Netherlands went through two major health reforms. In 2006, the insurance reform and in 2015 the long-term care reform. Both have affected the primary care and community care sector.

Primary care practices have evolved towards more complex organizations, including practice nurses specialized in care for people with chronic conditions and mental health problems. Moving care from secondary to primary care has strengthened the gatekeeper role of GPs and multidisciplinary care teams at the expense of increased workload.

Future reforms are envisaged to consolidated previous ones and optimise health care delivery to improve quality of care while containing costs. Developing quality of care standards and including them in pay for quality schemes will require further efforts in data collection, specially for patient-reported measures. Informed decision making by patients stands out as a challenge to enable informed choice.

The COVID-19 crisis has shown the importance of integrated primary care services and elder care. Care at home and long-term care have been challenged by the pandemic situation increasing the attention to health and social care integration and digitally enabled care to ensure timely, individualized responses to persons' needs (Inzitari et al, 2020).[2]

5. Recommendations

Two major trends are present in the Dutch primary care sector. On one hand, the shift of care from secondary to primary care, especially for chronic care management that has led to reduced referral rates. On the other hand, the transfer of tasks from medical to nursing professionals, especially for disease management programmes such as diabetic care, COPD, and cardiac risk management. The roles and competencies of the different types of nurses have made possible both transitions.

Reforms in the long-term care sector in search of cost containment, standardisation and specialisation led to mergers into large, regional home care organizations that reduced the level of autonomy of front-line workers and increased the fragmentation of different types of care professionals. Consequently, quality of care, patient and professional experience suffered also from this fragmented approach.

The Buurtzorg model of community nursing provides an innovative approach to better home care based on flattened management structure, coordination through

[2] A testimonial of how COVID-19 affected Buurtzorg can be seen in this video: Covid19 – what Buurtzorg is learning and what we can learn from Buurtzorg?
https://www.youtube.com/watch?v=vinJuvrgpEY

information systems and empowered community nurses and informal networks of care at community level.

Increasing community nurses' autonomy and expanding their scope of service to their competencies leads to positive results in the quadruple aim of better care, efficiency, and enhanced patient and professional experience.

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