CHAPTER 1

The structure and organisation of primary care

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Key topics

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- Organisation of primary care in the UK 5
- What can be done in primary care? 8

Learning objectives

- Understand the benefits of a health service that is based on primary care.
- Understand the scope and limitations of primary care in the UK.
- Appreciate how primary care is evolving in the UK.

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What is primary care?

Primary care is first-contact care provided by health care professionals to local populations. Primary care attempts to manage the health needs of individuals within these defined populations in a coordinated, comprehensive and continuous fashion from birth until death. Because patients present with unsorted problems, primary care health care professionals must be generalists who have an expert understanding of the causes of health and illness throughout a person's life.

In many countries primary care provides the foundation upon which the rest of the country's health system is built. This is certainly true in the UK. Everyone in the UK is entitled to register with a local general medical practitioner (GP). Once registered, the person is entitled to consult with a GP or nurse in the practice to which that GP belongs as often as they like. Most of the time, the GP is able to manage the patient's problem within the primary care team. Sometimes, the GP needs to refer the patient to the next tier of the health service – secondary care – for further investigation and treatment. In so doing, the GP acts as a 'gatekeeper' to the rest of the National Health Service (NHS), ensuring appropriate use of more expensive secondary care services, which are normally based in hospital.

The importance of primary care

The importance of having a strong primary care sector in every country was highlighted by the World Health Organization (WHO) in 1978 at an international conference at Alma-Ata, in what is now known as Uzbekistan.[1] The Alma-Ata declaration set out the aspiration of providing health for all by a primary care-led service. Here is its definition of primary care:

> Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of selfreliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.
>
> *Article VI, Alma-Ata Declaration, WHO, 1978*[1]

The aspirations of the Alma-Ata declaration have not yet been fully realised, but many countries are attempting to improve the health care that they offer their citizens by building a stronger base in primary care. China, for example, aims to train a further 300 000 GPs over the next 10 years, so that there will be 1 GP for every 3000–5000 people.[2]

The last 2 decades have seen the publication of a lot of evidence suggesting that countries which have a strong primary care sector have better health care outcomes. Professor Barbara Starfield, from the Johns Hopkins School of Public Health in the USA, published a seminal paper on this topic in 1994,[3] in which she ranked developed countries according to their health care outcomes and the strength of their primary care services. Countries which had the most developed primary care services had the best health care outcomes. The USA, which had the least developed primary care system at the time, had the worst health care outcomes. In the same paper, Professor Starfield showed that the countries which spent the least per capita on health care were the countries which had the most developed systems of primary care.

A more recent analysis of data from 31 European countries[4] has confirmed that health care outcomes are better in those countries which have a strong primary care base, as measured by the density of primary care providers and the quality of their environment. However, this analysis has not confirmed that these better outcomes are provided more cheaply. Today, countries in Europe which have well-developed primary care services tend to spend a larger proportion of their gross domestic product (GDP) on health than countries with less robust primary care services. According to the World Bank, in 1995 the UK spent 6.8% of its GDP on health; by 2012, it was spending 9.4%.[5]

Knowing the patient

> In hospitals the diseases stay and the people come and go; in general practice, the people stay and the diseases come and go.
>
> *Iona Heath, Past President of the Royal College of General Practitioners*[6]

One of the central features of primary care in the UK has been the relationship between the patient and 'their GP'. Patients are registered with a GP for years (the mean is 11 years), and in this time GPs often get to know their patients well. GPs' knowledge of their patients helps them with diagnosing and addressing the patients' worries. When a new diagnosis is made, patients want to know why and how it has happened to them. Knowledge of the patient makes it easier for the GP to provide this explanation and help the patient chose the best plan of action.

> In many instances knowing the person who has the disease is as important as knowing the disease that person had.
>
> *James McCormick*[7]

Case study 1.1 may help to explain why knowledge of the patient is so important in primary care.

Case study 1.1

Stephen Stockman is a 60-year-old widower who works on the railways. He is on treatment for high blood pressure. Recently, he saw the practice nurse for a blood pressure check; it was high, so the nurse told him to consult his GP. Last week he also went to see his optician for a routine eye check and was told that he might need referral to the Eye Hospital because the appearance of the back of his right eye indicated that he might have glaucoma. He hasn't noticed any change in his vision.

What finally prompts him to make an appointment with the doctor is neither of these things: it's the fact that he has a cough that has gone on for 3 weeks. He could have made an appointment to see one of the other doctors in the practice a bit sooner, but he decides to wait for the next available appointment with his usual GP, Dr Jones. When he comes to the GP, he starts out by mentioning the cough.

How does the GP's prior knowledge of this patient help to sort out these problems?

Dr Jones got to know Mr Stockman well when his wife was dying of lung cancer. Dr Jones made regular home visits to provide palliative care and issued the death certificate. Afterwards, she had a few consultations with Mr Stockman to support him through his bereavement. The GP established a strong, trusting relationship with Mr Stockman.

Knowing that his wife died of lung cancer, Dr Jones suspects Mr Stockman is worried that his cough is the first sign of cancer, so she takes particular care to check out this possibility.

Dr Jones holds the entire set of medical records for Mr Stockman, dating back to childhood. Dr Jones knows when Mr Stockman was diagnosed with hypertension and has records of the medication he has tried so far and the tablets he had to stop because of side effects. Thus, Dr Jones is in the best position to decide what new or additional tablet Mr Stockman could try to control his blood pressure better.

Amongst the medical records are all the consultant letters from visits to hospital. One of the letters is from a consultant whom Mr Stockman saw at the Eye Hospital 6 years ago. In this letter, the consultant describes the same appearance of the right fundus that the optician is describing now. The consultant had ruled out glaucoma. Mr Stockman had forgotten this.

Organisation of primary care in the UK

The UK has a national network of GP practices. All GP practices operate as independent small businesses that are subcontracted by the NHS to provide primary care services to specified geographical areas. There are restrictions on the number of practices in a given area. In many parts of the country, particularly in urban areas, there are several practices with overlapping boundaries. Therefore, many patients have a choice about which practice they register with. Members of a given household tend to be registered with the same practice, but this is not always the case. About 98% of the UK population is registered with a GP.

The GP workforce

The number of full time-equivalent GPs in the UK has grown very slowly in recent years, but the way in which they have been organised has changed quite rapidly. The number of single-handed practices continues to fall, as practices merge and grow. All GPs used to work as partners, but a change to the GP contract in 2004 made it financially advantageous for partnerships to employ salaried doctors. Now, over a quarter of the GP workforce is salaried. The average number of patients registered per full time-equivalent GP is about 1500, but this is considerably smaller in rural areas, where the population is much more sparsely scattered. Other key statistics on general practice in England are presented in Table 1.1.

Table 1.1 Facts and figures on primary care workforce in NHS, England, 2014.

Number of full time-equivalent, fully-trained GPs	32 628 (23 763 GP partners + 8 865 salaried/locum GPs)
Number of full time-equivalent nurses in general practice	15 062
Number of full time-equivalent other staff working in general practice	73 334
Number of practices	7 875
Average number of patients registered at each practice	7 171
Number of GPs per 100 000 patients	66.5

Source: NHS Workforce: *Summary of staff in NHS: results from September 2014 census*. 25 March 2015. www.hscic.gov.uk.

Before they can start work as independent GPs in the UK, doctors must complete 3 years of further training following the 2-year foundation programme. They must also pass the membership exam of the Royal College of General Practitioners (MRCGP). The Royal College of General Practitioners would like training for GPs to be extended to 4 years, and the

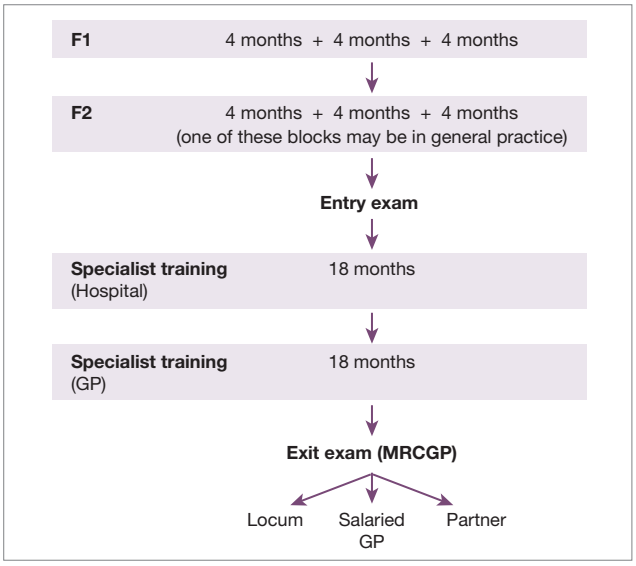

Figure 1.1 Training pathway for GPs in UK.

Table 1.2 The practice team.

Member	Responsibilities
Practice nurse	Wound management, vaccinations, minor illness clinics, chronic disease clinics, cervical smears, contraceptive services
Health care assistant	Phlebotomy, weight-loss clinics, smoking-cessation clinics, health checks
Receptionist	Booking appointments, processing requests for repeat prescriptions
Secretary	Typing referral letters and reports, booking hospital appointments, chasing results, reports and appointments at hospital
Data clerk	Summarising notes, coding information in letters and discharge summaries
Prescribing advisor	Conducting audits, reviewing quality and cost-effectiveness of prescribing
Practice manager	Managing the team (human resources), managing practice accounts and contracts

Department of Health says it shares this aim. At present, the funds that would be needed to make this happen have not been identified. Figure 1.1 shows the current training pathway for GPs in the UK.

The practice primary care team

GPs employ many people in order to provide comprehensive care, including practice nurses, health care assistants, receptionists, secretaries, data clerks and practice managers. Their roles are summarised in Table 1.2.

Practice nurses

The role of the practice nurse expanded significantly when practices took on responsibility for a large part of chronic disease management. In most practices, it is the practice nurses who run the asthma, chronic obstructive pulmonary disease (COPD), hypertension and diabetes clinics, with support and advice from a GP.

Increased workload, resource constraints and changes to legislation have led to a blurring of boundaries between roles. Much work previously done by GPs has been taken up by nurses, and nurse tasks are being carried out by health care assistants (HCAs) and phlebotomists

Some practice nurses have had extended training and are able to write prescriptions and work as nurse practitioners; these nurses can run minor illness clinics and assist with running urgent surgeries.

An increasing volume of work in primary care is being undertaken by practice nurses; in 2008–09, practice nurses were doing 34% of all consultations. There is evidence to support this expansion of the nurse role: practice nurses are effective in giving lifestyle advice;[8] they have been shown to be instrumental in improving outcomes in chronic diseases such as diabetes;[9] and patient satisfaction with nurse consultations is high.[10]

Consultations with practice nurses are longer, which increases patient satisfaction but counterbalances the lower salary costs. As yet, there is no evidence that substituting GPs with nurses is cost-effective. GPs run shorter appointments, deal with several problems in a single consultation and have expertise in managing undifferentiated symptoms.

Attached to each practice or group of practices is a team of district nurses. Sometimes these nurses have a base in the same building as the GPs; sometimes they are located elsewhere. Patients can be referred to a district nurse by a GP or can refer themselves directly. District nurses provide medical care to patients who are housebound. Patients may be housebound temporarily, such as after a major operation, or they may be permanently confined to their houses, as the result of a disability or terminal illness. The district nursing service is under considerable pressure and is constantly exploring new ways of working. Most district nursing teams have a skill mix from the most highly trained and experienced community matrons to workers with less training, such as HCAs and phlebotomists.

A number of other professionals work in the community with the primary care team, but are usually based and employed outside the GP practice; these are listed in Table 1.3.

The demand for consultations

In England, about 340 million consultations take place in primary care every year; that's about five to six consultations per patient per year. Consultation rates are much higher for young children and the elderly. Women consult more often than men.

All practices have to provide appointments between 8 am and 6.30 pm Monday to Friday. During these hours, practices

Table 1.3 The wider primary care team.

Member	Responsibilities
District nurses	Visit housebound patients to give palliative care, insulin and other injections and wound care
Community matron	Visit housebound patients and monitor patients with multiple chronic diseases; emphasis on admission avoidance
Health visitors	Provide advice to parents and conduct surveillance of children under 5, often focussed on those on the child protection register; some health visitors specialise in providing care to older people
Pharmacists	Give advice on and dispense medication
Drug and alcohol workers	Counsel those who want to come off drugs and/or alcohol; give advice to GPs on prescribing and caring for these patients
Physiotherapist	Assess and treat musculoskeletal problems
Podiatrist	Foot care, especially for patients with diabetes
Midwives	Antenatal, intrapartum and postnatal care
Dieticians	Assess diet of those with long-term illnesses and monitor total parenteral nutrition (TPN)
Occupational therapists	Provide home aids for people with disability

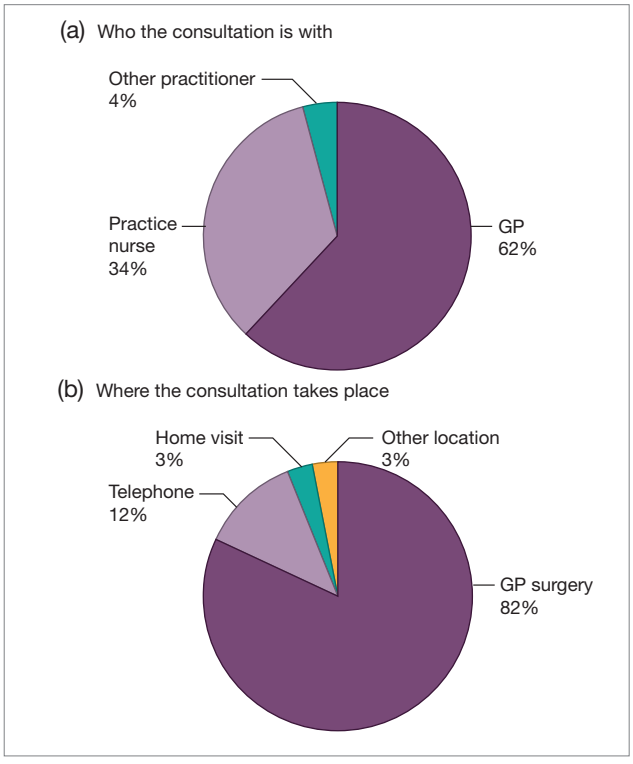

Figure 1.2 Consultations in primary care.

have to offer a mix of urgent (book-on-day) slots and pre-bookable appointments for managing routine and ongoing problems.

There is constant pressure on GP appointments. Increased responsibility for managing chronic illnesses and more patients with multiple and complex problems have led to an increase in appointment length.

Many consultations are conducted over the telephone and some are done by e-mail. Figure 1.2 shows who provides the consultations in primary care and where they take place.

Surgeries are incentivised to provide appointments outside the hours of 8 am–6.30 pm: early morning, late evening and at weekends. Patient surveys show that there is demand for more of these appointments.

In an attempt to provide greater choice and convenience for patients, walk-in centres were set up in 1999. The distribution of walk-in centres across the UK is uneven. They are run by nurses, and most are open 365 days a year, but not for 24 hours. They offer an alternative for patients who have a minor ailment or injury. The nurses can prescribe medication for a limited number of conditions and emergencies, such as an asthma attack. Patient satisfaction with walk-in centres is high. Most of the people who use them are registered with a local GP surgery. Typically, they present to walk-in centres on the first day of their illness and are less concerned about continuity of care than patients who present to general practice.

Providing primary care out of hours

GPs used to be responsible for providing 24-hour care 7 days a week. The demand for care out of hours was considerable. A study by Salisbury in 2000 of 1 million patients in the UK[11] showed that there were 159 requests for out-of-hours GP care each year for every 1000 patients. Amongst the under 5s, the rate was four times higher, and amongst people living in deprived areas, the rate was twice as high. In 2005, GPs were allowed to opt out of having 24-hour responsibility for their patients in return for a cut in pay. Since then, out-of-hours care, aimed at dealing with urgent problems only, has been managed by separate, independent providers who employ GPs to do this extra work. All the providers use a similar system of triage to manage the demand: patients are offered telephone advice, a face-to-face consultation in an out-of-hours centre or a home visit.

In 2013, the system of out-of-hours care changed again. Now, if a patient requests care out of hours, they must dial 111. A trained advisor or nurse takes their call and directs them to the most appropriate source of care. This might involve going

to a pharmacist, going to accident and emergency or consulting with the out-of-hours GP provider.

The repeated changes to the provision of out-of-hours services and the introduction of walk-in centres has created confusion for patients. Out-of-hours care used to be reserved for urgent problems that could not wait until the GP surgery opened again. It is unclear if this is still the case. Should the NHS provide routine primary care round the clock? A similar question is being asked of secondary care.

What can be done in primary care?

Primary care in the UK has many resources at its disposal.

GPs can prescribe almost anything that is listed in the British National Formulary (BNF); 90% of all prescriptions are issued in primary care. GPs have a notional budget for their prescribing and are under pressure to stick to this. Trained pharmacists work within the practice as prescribing advisors to ensure cost-effective prescribing.

GPs can refer patients to almost any hospital in the UK through a national booking system called Choose and Book.

GPs have the right to admit patients to their local district hospital, where their care is transferred to a consultant. Some GPs also have access to beds in community hospitals, where they can continue to look after their own patients.

Record-keeping

GPs are the guardians of the entire set of their patients' medical records. They are the only people who hold this record. When the NHS was created, it was decided that whenever someone is seen within the service, a report of that encounter should be sent to their GP. GPs used to keep all these reports in cardboard wallets together with their own paper records. Medical records are often fascinating historical documents, and tell a story of a patient's life. Now all the letters are scanned and stored electronically. All GP practices have computer systems to hold their patient records. Initially, these computer systems were set up to cope with the volume of repeat prescriptions, but soon they were used to hold disease registers and the notes written by GPs at each consultation. Every component of the patient record can be coded, which means the records can be searched easily. For instance, with a few clicks, any practice can tell you how many patients they have who are taking a particular medicine and how many have had their blood pressure checked in the last 6 months. This is a powerful tool for research. This information is also sought by insurance companies, who want to know what risk they are taking on when offering life insurance. Patients, of course, have to give their permission for this information to be disclosed and have the right to withhold it.

Legal powers

GPs have considerable legal powers. They have the right to issue death certificates (see Chapter 40) and can decide whether or not someone is fit to work. In the UK, someone who is ill or injured can sign themselves off work for the first 7 days by completing a self-certificate, obtained from their employer. If, after this time, they have not recovered sufficiently to return to work, they need to obtain a Statement of Fitness to Return to Work (Fit Note) from a doctor. GPs can use this note to make recommendations about the conditions that would enable their patient to return to work. Alternatively, they can indicate on the note that their patient is completely unfit to work. Overall, being in work is good for an individual's health. It is better for someone to work in a modified or reduced capacity than not to work at all. This is why, in 2010, the doctor's 'Sick Note' was redesigned and rebadged as a 'Fit Note'. GPs feel that the format of the Fit Note has helped them talk to patients about returning to work and has encouraged more of their patients to make a phased return to work.[12]

Once a patient has been unfit for work for more than 3 months, the GP's responsibility for certification ends and an agent of the Department of Work and Pensions assesses the patient to decide if they are entitled to long-term benefits.

Perhaps the greatest strength of GPs is their knowledge of health and illness. This enables them to anticipate future problems, to reassure patients who will get better, to prepare those who may get worse and to identify those who may have a serious disease. GPs might not be able to offer a cure or treatment, but they can always help patients make sense of their problems and offer comfort.

SUMMARY

Primary care describes the health care which patients can obtain directly without having to be referred by someone else. Primary care health workers have to deal with undifferentiated problems in patients of any age. The health care system in the UK has a strong primary care base and a large workforce of primary care physicians (general practitioners). One in four doctors in the UK are GPs.

GPs work in group practices alongside many other types of health care worker. They provide a local service and offer continuity of care. The majority of their consultations are done in GP premises, but they also visit patients who are housebound. In the UK, GPs have substantial resources and powers at their disposal. This means they are able to investigate and diagnose problems, manage patients with chronic disease and refer patients to specialists when necessary. Primary care services outside of normal working hours have been reorganised several times, and this has created considerable confusion for patients.

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