

Research paper

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A pro-active approach. Health Promotion and Ill-health prevention



An Inquiry into the Quality of General Practice in England

A pro-active approach. Health Promotion and Ill-health prevention

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Executive summary

This paper is one of a series prepared for the inquiry into the quality of general practice in England commissioned by The King's Fund. The specific focus of the inquiry is to examine the role of general practice and the quality of the services it provides. The focus of this paper is on health promotion and ill-health prevention. It is not intended to be an exhaustive review but rather to give an overview of the range of activities undertaken by general practitioners (GPs) and general practice.

The paper draws on a brief review of the literature in areas of primary and secondary prevention in general practice. The review focuses on four specific areas of activity: childhood immunisation, smoking cessation, cardiovascular disease and obesity.

GPs and their practice teams have a crucial role to play in promoting health and preventing disease. Every consultation is an opportunity to detect early warning signs that could prevent illness and disease. The Royal College of General Practitioners (RCGP) agrees that GPs should be proactive in carrying out public health activities and interventions. However, research continues to find that the relationship between public health and general practice in England focuses mainly on secondary prevention.

There is enormous potential for general practice to take a more proactive role in ill-health prevention and public health. Public health guidance from the National Institute for Health and Clinical Excellence (NICE) advises primary care professionals such as GPs to opportunistically and proactively carry out activities such as brief interventions. But, for example, in the case of smoking, GPs frequently respond to requests for help giving up smoking rather than proactively engaging existing smokers.

The evidence base concerning the role of health promotion in general practice is a growing field and general practice, public health and academics need to work together to improve the evidence base.

Many GPs say that they lack the skills they would need to deliver effective health promotion. Most commonly, the method they use to address public health and ill-health prevention is to provide information and advice – and, while patients value these interventions, other interventions can be more effective. Furthermore, the Royal College of General Practitioners expects GPs to possess a wide range of skills related to ill-health prevention and public health.

Future issues, such as GP commissioning, provide a new set of challenges for public health and ill-health prevention. With the growing evidence base, NICE guidance (which is improving each year) and changing responsibilities, the time is ripe for primary care and GPs to become more proactive to improve their work in public health and ill-health prevention.

1 Introduction

If general practice isn't public health, then what is it? [It] is not just cure, it's prevention, it's diagnosis – it's the whole lot.

(Locum GP, north-west England)

Since the 1980s there has been a growing interest in the role of primary care, and general practice in particular, in public health activities. General practice and GPs are often regarded as the basic building blocks of public health, and primary care is seen as a logical location for local public health activities. The Alma-Ata declaration in 1978 identified the role of GPs in public health as important, and 30 years later in a report on primary care the World Health Organization (WHO) confirmed this special relationship (WHO 1978, 2008).

The special relationship is defined by the unique position of general practice to provide medical care and promote the health and well-being of its patients. General practice, and specifically the GP service, remains the most-accessed part of the English health care system. Policy initiatives have sought to provide alternate first points of contact, such as increased advice roles for pharmacists and the development of telephone advice lines and walk-in centres. However, GPs remain the patient's most frequent first point of contact with the NHS. In 2008/9 just over 300 million GP consultations took place in England. As such, general practices are regarded as 'key agents', which have the best and most frequent opportunities to improve public health (Wirmann and Carlson 2005).

GPs are uniquely placed to do a great deal more in public health than they do currently, since they have so many opportunities. The Royal College of General Practitioners agrees that GPs should be proactive in carrying out public health activities and interventions, arguing:

GPs see each of their patients, on average, three to four times per year. Many of these contacts are for minor, self-limiting problems. GPs, therefore, have many excellent opportunities each year to discuss healthy living with the patients and for the early detection of illness.

(RCGP 2007)

However, a more individualistic and medicalised system of primary medical care persists that emphasises treatment over prevention (Peckham and Exworthy 2003; Turton *et al* 2000). The Royal College of General Practitioners has tried to change this attitude, and recently stated GPs play a crucial role in promoting health and preventing disease. Its curriculum statement on health promotion encourages GPs to be proactive in consultations to, for example, to 'discuss healthy living with the patients and for the early detection of illness... provide appropriate diagnostic, therapeutic and preventative services to individuals, and to the registered population' (RCGP 2007). However, despite this emphatic endorsement of public health activity in general practice, GPs are comparatively less involved in health promotion than their equivalents in other European countries (Grielen *et al* 2000).

Patients are either not receiving advice from their GP, or the advice is not memorable. For example, there is evidence to suggest that less than one-

third of overweight or obese patients reported that they had received lifestyle advice that could assist with weight loss from their GP. In the same study, just one-third of respondents with hypertension reported that they received advice to reduce salt intake (Booth and Nowson 2010).

GPs say they are more comfortable managing illness than promoting health (Lawlor *et al* 2000), but they have many opportunities to be proactive in promoting good health and preventing ill-health. For example, the Royal College of Australian GPs (RCAGP) regards prevention services as being central to general practice, and its guidance (RACGP 2006) emphasises the proactive tasks GPs can do, such as:

- actively encouraging risk avoidance and healthy choices (such as immunisation, encouraging breastfeeding and physical activity)
- targeting high-risk patients or groups (advising on smoking, alcohol, unsafe sexual practices, mammography and screening)
- prescribing treatments for those with an illness, to prevent further complications.

The RCAGP guidance on behavioural risk factors in general practice also encourages GPs to be more proactive in promoting ill-health prevention with their patients. Its guidance *SNAP: Smoking, Nutrition, Alcohol, Physical Activity – A population health guide to behavioural risk factors in general practice* (RACGP 2004) offers practical advice on why general practice is 'the right place' to include risk factors associated with smoking, obesity, nutrition, alcohol intake and lack of physical activity. For each of these behaviours, advice is given on 'asking and assessing, advising and assisting, arranging support and following up'.

This practical document is in contrast with the RCGP approach, which instead emphasises the role of information – 'giving patients up-to-date information' – and of the need to keep up to date, be aware of, and have access to 'a variety of ways in which patients can get... information' (RCGP 2008). Providing advice and information is one of the primary ways GPs and other health care professionals carry out public health and ill-health prevention (Boyce *et al* 2008). The attitude of GPs to public health is typified in the following quote from a GP in north-west England:

If you come into the surgery, we've always got some new poster – either travel vaccines in the summer or flu jabs in the winter. We try to promote things to patients. We have a practice newsletter with at least one clinical message, which might be 'This is when our stopping smoking clinics are – have you thought about coming to one?' or 'Now is the time to book your flu jab' or whatever. So there are lots of different ways we try to reach the practice population on health promotion, as well as on an individual basis, and more specifically targeted health promotion to people with chronic diseases.

(GP partner, north-west England)

Patients value advice and information from the GP. However, GPs need to be more proactive and ambitious in including ill-health prevention and public health in their daily activities. This will be particularly true as GPs become commissioners and increase their public health function. Using four case studies – childhood immunisations, smoking cessation, screening for cardiovascular disease and obesity – this research will demonstrate that

where evidence-based interventions exist, GPs should be incorporating this evidence into their daily activities.

Defining prevention and public health

Health promotion, public health, health education and health improvement are widely, and often imprecisely, defined. Tannahill (2009) argues that there are so many definitions that the term 'health promotion' has become meaningless.

There is a longstanding debate within general practice about the extent to which primary health care should have either a community or individual orientation (see Peckham and Exworthy 2003; Starfield *et al* 1998). Evidence demonstrates that primary care, in a clinical setting, can contribute effectively to individual and community health and population needs (see, for example, Starfield *et al* 2008). Yet many professionals confine their public health activity to a strictly clinical agenda, and those who do engage with the community on wider public health issues are regarded as going beyond their formal role (Taylor *et al* 1998; Abbott *et al* 2001; Anderson and Florin 2000; Gillam *et al* 2001).

The structures and cultures of primary care organisations generally reflect the dominant medical model, which can inhibit the development of population health and community perspectives on health (Taylor *et al* 1998; Turton *et al* 2000). Indeed, one problem in examining the public health role of general practice and health promotion activities is the lack of a single, stable and bounded definition for each of the terms 'ill-health prevention' and 'health promotion'. In order to facilitate the discussion, in this paper we use the following definitions:

- **Primary prevention** This comprises activities designed to reduce the instances of an illness in a population and thus to reduce (as far as possible) the risk of new cases appearing, and to reduce their duration.
- **Secondary prevention** This comprises activities aimed at detecting and treating pre-symptomatic disease.
- **Tertiary prevention** These are activities aimed at reducing the incidence of chronic incapacity or recurrences in a population, and thus to reduce the functional consequences of an illness, including therapy, rehabilitation techniques or interventions designed to help the patient to return to educational, family, professional, social and cultural life.

Such a wide definition of prevention incorporates a huge variety of services, addressing problems ranging from mental health to sight or auditory problems and the four areas covered in this research – childhood vaccinations, smoking, cardiovascular disease and obesity.

While definitions of public health and prevention are wide ranging, in many fields there is a lack of evidence about the benefits of related interventions (Starfield *et al* 2008). In a recent review of health promotion opportunities for general practice, Watson (2008) noted 'a dearth of information about the effectiveness of health promotion in the primary care setting'. The National Institute of Health and Clinical Evidence (NICE) is demonstrating that there is evidence demonstrating the effectiveness of public health interventions, by June 2010, it had published guidance in 26 public health areas (available at: www.nice.org.uk/Guidance/PHG/Published), all of which include information on cost-effectiveness.

Research methodology

The research method involved carrying out non-systematic reviews of the literature in the fields of health promotion and ill-health prevention, at both the primary and secondary levels, in general practice. We selected examples of primary and secondary prevention activities that GPs would be expected to carry out.

The reviews could have focused on particular risk factors, such as diseases or priority groups. However, we selected four case studies that have received substantial policy attention in the past 15 years, focusing on issues that were likely to have evidence of quality, effectiveness and cost-effectiveness. With regards to primary prevention, we examined childhood immunisation. In terms of secondary prevention, we analysed smoking cessation and screening for cardiovascular disease via testing for lipid levels and the use of statins. Finally, to cut across all levels of prevention, we chose obesity as our final example, as this involves primary, secondary and tertiary prevention.

We conducted electronic searches of the Health Management Information Consortium, the Cochrane Library, Science Direct, National Library for Public Health, Medline, PubMed and Google Scholar. The search terms used for the smoking cessation literature review were various combinations of: physicians, general practice, general practitioner, GP, family, family practice, health promotion, England, UK primary care, smoking cessation, smoking. For the literature search on obesity, various combinations of the following terms were analysed: obesity, general practice, general practitioner, GP, family, family practice, health promotion, England, UK, best practice, evaluation, effectiveness. Searches were limited to articles published between 1999 and 2009.

After reviewing the literature generated by these searches, we then conducted manual searches of the bibliographies of the retrieved articles. In some instances, these reviews led to further manual searches, resulting in a snowball reviewing approach. The resulting articles reflected a variety of research designs and methodologies. Many of the reviewed papers presented research that was not systematic, and the research reviewed here represents studies drawing on qualitative and quantitative research.

In addition to the literature review, we present primary data from interviews. These interviews were undertaken as part of a research project funded by the National Institute for Health Research Service Delivery and Organisation programme examining the impact of QOF on the public health activities of general practice (for details, see www.sdo.nihr.ac.uk/projdetails.php?ref=08-1716-207). GPs were interviewed in 12 practices in four PCT areas in the London area, the Midlands and the North West. Interviews were also conducted with directors of public health in each of the PCTs, and with other practice staff, such as practice nurses and managers.

The PCT interviews were designed to provide a brief overview and context of the commissioning, contractual and governance arrangements that framed how general practice operated in each PCT. Interviews tended to be relatively structured, but providing space for interviewees to express their views and experiences where relevant. Interviews lasted an average of 40 minutes.

2 Shifting policy: public health and prevention in general practice

In UK general practice there is a tradition of public health – and particularly of individual ‘activist’ doctors addressing public health and ill-health prevention in deprived communities. Two GPs in particular have played a significant role in progressing the role of public health in general practice. Julian Tudor-Hart (see, for example, Tudor-Hart 1992, 1998) has progressed ideas on public health in general practice, stating that, in practice, the work – preventive or curative, primary medical care or primary health care, GP or nurse led – is not as neatly compartmentalised as the theory may indicate. Meanwhile, Peter Toon (see, for example, Toon 1994) described the following three principal domains of British general practice:

- the biomedical (treatment orientated)
- the humanist tradition, with its focus on the consultation
- a preventive one.

Both these concepts of public health incorporate clinical and non-clinical dimensions, and challenge GPs to more proactively address their patient population’s needs (Tannahill 2009).

Despite the work of these two visionaries, the relationship between public health and general practice in England has remained focused on secondary prevention (Peckham and Exworthy 2003). General practice is encouraged to carry out a growing proportion of public health activities, through changes in contracts and the introduction of financial incentives.

The 1990 contract introduced payments for achieving certain targets (such as cervical screening and immunisation) and for running ‘health promotion’ clinics. This contract helped increase GP involvement in preventive medicine from 5 to 25 per cent, with GPs more actively enquiring about smoking, alcohol consumption and exercise than identified in earlier studies (McAvoy *et al* 1999). However, these incentives did not succeed in drawing GPs beyond the surgery door, and most still focused on what are essentially clinical activities (Gillam 1992; Gillam *et al* 2001; Peckham and Exworthy 2003).

With the election of the Labour government in 1997, government policy sought to strengthen the relationship between primary care and public health. This involved developing a multi-disciplinary workforce and the introduction of public health targets, including to reduce health inequalities, improve detection rates for cancer and encourage smoking cessation. The Wanless report (Wanless 2004) further emphasised the importance of public health and ill-health prevention, arguing that local-level public health activities needed to be prioritised and adequately resourced in order to develop long-term sustainable action to improve population health.

In response, policy-makers focused on specific public health measures, such as doubling the capacity of smoking cessation interventions, targeting prevention of cardiovascular disease by increasing coverage of anti-hypertensives and statins, and improving the detection of cancer. These more clinical interventions, delivered in primary care, made the GP role crucial to the delivery of public health improvements and reductions in health inequalities.

The Quality and Outcomes Framework was expected to shift the role of public health in general practice further, and to encourage a more population-based approach. However, GPs continued to aim their prevention work on patients at high risk rather than taking a population approach (Lawlor *et al* 2000). Thus, the initial QOF contract had a limited impact on primary and secondary prevention. However, the QOF did help to stimulate public health activity in general practice, and encouraged GPs to run ill-health prevention clinics, as the following GP explains:

We have started it because now, obviously, with the QOF setting, we thought it is better to have a preventative measure rather than seeing the patient when they have fully developed the diabetes. Prevention is better than cure. So that's why we have set up these clinics – to help the people to understand, because there is a lot of illiteracy and ignorance about their diseases.

(GP, London)

When the contract was revised in 2006 there was an attempted shift to include more preventive indicators, but the QOF continued to prioritise secondary prevention (Peckham and Hann 2008). In 2009, only 10 of the 146 indicators were related to primary prevention, leading some to claim there was a 'risk that primary preventive activities will be overlooked' in general practice (Exworthy *et al*, cited in Whitehead *et al* 2009).

Another factor that has limited the effectiveness of the QOF to address public health is the size and structure of incentives. The effect of bonus payments to identify patients with disorders related to tobacco use and the provision of cessation advice were related to an increase in documentation of tobacco use (for example, by asking the question 'Do you smoke?') but not to the increased provision of cessation advice. This illustrates the need to relate incentives carefully to a combination of process and outcome measures (Petersen *et al* 2006).

In addition, there is a risk that the QOF may encourage practices to implement labour-intensive interventions (such as screening and treatment for hypertension) rather than interventions with greater potential for health gain (such as prescribing angiotensin-converting enzyme inhibitors in heart failure) simply because the former receive higher financial reward (Fleetcroft and Cookson 2006).

One reason for the lack of primary prevention indicators in the QOF is that the framework requires that each indicator has evidence of clinical effectiveness that can be consistently and accurately measured. The lack of evidence on prevention and interventions that work in general practice is one reason for the lack of robust indicators on prevention. This, then, tends to skew targets towards those that involve recording, prescribing and advising for a relatively narrow range of chronic diseases such as diabetes and coronary heart disease (CHD), resulting in treatment and secondary prevention being favoured over primary prevention.

Researchers and general practitioners need to work together to improve the evidence base on the effectiveness of ill-health prevention and public health in general practice.

GP skills in public health

The RCGP expects GPs to possess a range of skills related to ill-health prevention and public health. These include those set out in the box below.

RCGP curriculum on health promotion and preventing disease

GP knowledge

- A wide knowledge of the public's health and prevalence of disease.
- The ability to judge the point at which a patient will be receptive to the concept and the responsibilities of self-care.
- Knowledge of patient's expectations and the community, social and cultural dimensions of their lives.
- Understanding the importance of ethical tensions between the needs of the individual and the community, and to act appropriately.

Working in partnership / teamwork

- Working with other members of the primary health care team to promote health and wellbeing by applying health promotion and disease prevention strategies appropriately.
- The ability to work as an effective team member over a prolonged period of time and understand the importance of teamwork in primary care.
- Understanding the role of the GP and the wider primary health care team in health promotion activities in the community.

Changing behaviour

- Understanding approaches to behavioural change and their relevance to health promotion and self-care.
- Changing patients' behaviour in health promotion and disease prevention.

Educating patients

- Helping the patient to understand work-life balance and, where appropriate, help patients achieve a good work-life balance.
- Describing the effects of smoking, alcohol and drugs on the patient and his or her family.
- Promoting health on an individual basis as part of the consultation.
- Negotiating a shared understanding of problems and their management (including self-management) with the patient, so that the patient is empowered to look after his or her own health and has a commitment to health promotion and self-care.
- Giving up to information on acute and chronic health problems, on prevention and lifestyle, and on self-care.

Source: RCGP (2007)

However, GPs admit many of them lack the skills needed to deliver effective health promotion (Laws *et al* 2008; Thompson *et al* 2008; Braun *et al* 2004). In addition, many GPs are unconvinced that their efforts to counsel patients on lifestyle issues are effective in changing behaviours. In a study of GPs who helped patients reduce alcohol consumption, 83 per cent felt 'prepared' or 'very prepared' to counsel about alcohol consumption but only 21 per cent felt they were 'effective' or 'very effective' in helping patients reduce consumption (McAvoy *et al* 1999). As Field (2010) puts it, 'Public health is a sensitive subject. It's not easy to strike the right balance between "protecting" people's sensibilities and telling them hard facts about their personal behaviours that are ultimately shortening their lives.'

An additional problem in increasing the level of public health in general practice is that many GPs are concerned that giving lifestyle advice may be detrimental to the GP-patient relationship (Lawlor *et al* 2000; Pratt 1995). The RCGP (2007) acknowledges there may be potential tension between a GP's health promotion role and the patient's own agenda, but nonetheless argues that is possible and valuable to incorporate ill-health prevention and public health into the mainstream GP tasks. Other practitioners (such as Fitzpatrick 2001) are ambivalent about the place of health promotion, and question whether they should be vested with responsibilities for social engineering that they regard as the responsibility of the government.

Finding time

In addition to a lack of skills and knowledge, GPs identify other factors that prevent them from carrying out preventive tasks, including lack of time, competing priorities, workforce shortages, lack of support systems, and remuneration issues (Sim and Khong 2006; Starfield *et al* 2008). Indeed, many clinicians view prevention as 'impossible to accommodate within the clinical visit', due to the growing list of existing requirements (Gervas *et al* 2008).

A US study estimated that 'providing all the recommended high quality preventive care tasks for patients would add approximately 7.4 hours to the day' (Yarnall *et al* 2003). Meanwhile, a UK review of the relationship between the GP consultation length, process and outcomes concluded that GPs with 'longer than average consultation lengths prescribed less and were more likely to include lifestyle advice and preventive activities' (Wilson and Childs 2002).

The position of this report is that GPs do have a role in leading ill-health prevention, but that a great deal of this work can be done in partnership with the GP team and with external partners.

Costing public health and ill-health prevention

The 'cost' of public health is an important discussion for the NHS and general practice. Ill-health prevention is often described as a means of saving funds for the NHS (see Wanless 2004). It is true that prevention can be cost-effective – but it can also be costly, as NICE evidence demonstrates. A review of 1,500 interventions found that only approximately 20 per cent lowered costs, and the remainder added more costs than they saved (Russell 2009; Starfield *et al* 2008).

There is a need to calculate the short-, medium- and long-term cost and

value of ill-health prevention and public health interventions. NICE provides cost-effectiveness on all of its public health guidance, and researchers need to continue to improve their cost-effectiveness analysis of public health interventions.

Using the GP team and wider partners

The entire GP team can play a significant role in ill-health prevention and public health, while at the same time improving continuity of care and reducing the workload for GPs. Practice nurses and additional practice staff are essential in developing an effective and cost-effective, practice-wide, ill-health prevention approach. Practice-based approaches to public health include running prevention groups or providing community-based services within the practice. The use of group meetings or health promotion clinics has been a longstanding activity in general practice. Advice workers in general practice have also benefited families with young children, for maternal and child health (Peckham and Exworthy 2003).

Another example of how GPs can help to improve their patients' health without substantially increasing their workload is by working with external community partners. One example is the Liverpool Healthy Homes (LHH) initiative, which seeks to prevent death and illness due to poor housing conditions and accidents in the home (see www.liverpool.gov.uk/Environment/Environmental_health/healthyhomes/index.asp). The programme works with a range of stakeholders, with GPs as key partners. With their patients' consent, GPs inform the LHH when a patient's health is affected by their housing situation. The LHH initiative focuses on the individual patient, but works with numerous partners to address community health.

The LHH is an example of community-orientated primary care (COPC), described as 'the continual process by which primary health care teams provide care to a defined community on the basis of its assessed health needs by the planned integration of public health with (primary care) practice' (Gillam *et al* 1998). This approach involves the entire primary care team in identifying and prioritising, then assessing and addressing, local health problems. Other COPC achievements include innovative service developments such as a one-stop-shop service for nursing, physiotherapy, chiropody and benefits advice for people over 75 years old, and a benefits outreach service for people over the age of 80 in two London practices (Ilfie and Lenihan 2001).

These types of population-based interventions raise the issue of how to identify and measure effectiveness – especially of individual stakeholders. However, as the NICE public health guidance demonstrates, methods are improving.

Having considered the policy background, we now go on to consider case studies in the following four areas: for primary prevention, childhood immunisation; for secondary prevention, smoking cessation and screening for cardiovascular disease; and finally, as an area that cuts across primary, secondary and tertiary prevention, obesity.

3 Primary prevention: childhood immunisations (case study A)

The mass childhood immunisation (MCI) programme seeks to control the eradication, elimination or containment of various diseases. In the United Kingdom there are 13 routine immunisations for boys, and 14 for girls, with two further non-routine immunisations. The 2004 General Medical Services contract made practices no longer contractually obliged to provide immunisation services but most chose to continue to provide them. Currently most MCI programmes have reached herd immunisation. However, certain vaccines have lower uptake than others, with booster vaccines (MMR and DPT/Hib/polio) being particularly low.

Current practices are fairly successful, but as full herd immunity is yet to be reached for all vaccines, some improvements can still be made. For example, the MMR vaccine is yet to reach the herd immunity levels it achieved before the MMR autism affair arose in the late 1990s. The decline in MMR was due to external factors, yet GPs played a significant role in convincing parents to have the vaccine. The MMR autism affair is an example of where GPs could have been more proactive in moving from an individual to a more population-focused approach.

Current practice and quality of health promotion and ill-health prevention

GPs receive payment for MCI through the PCT global sum and an additional target payment. GPs receive a higher payment if they immunise 90 per cent of all the children on the partnership list who are aged two. Lower payment is received if the average of courses completed is 70 per cent, and there are no payments for any target below 70 per cent. (This figure includes only the immunisations given by the GPs, and not those provided by other services, such as through schools.) A Cochrane review of financial payments to GPs associated with improved immunisation rates found some evidence that they did increase vaccine uptake, but concluded that there was insufficient evidence as to whether target payments improved quality of care (Giuffrida *et al* 2000).

The reason for low MCI uptake differs for different vaccines. For example, the factors associated with lower acceptance of the human papillomavirus (HPV) vaccine were associated with being of an 'other religion', while having an older 'target daughter' or a family member with cancer were associated with higher acceptance (Marlow *et al* 2007).

In contrast, low acceptance of the MMR vaccine resulted from parents' concern about the safety of the vaccine (see Boyce 2007; Casiday *et al* 2006). In addition, the reasons for not vaccinating differ between children who are partially immunised and those who are unimmunised, indicating that work to convince these parents should be carried out as needed (Samad *et al* 2006; Keane *et al* 2005). The most common reasons for children being only partially immunised are medical, practical and logistic barriers, while the most frequent reasons for parents choosing not to immunise their children at all are parental beliefs and medical reasons (Samad *et al* 2006).

The primary intervention of GPs in MCI is to provide information to help parents make decisions, but the type of information that patients want

often differs from what GPs and the NHS provide. GPs are more likely to communicate risk in absolute or relative terms, but in fact patients need this information presented differently, and often request personal anecdotes instead of statistical evidence (Lloyd 2001; Timmermans *et al* 2004; Boyce 2007). An important role for GPs in improving and maintaining the MCI programme is to provide reliable and relevant information to parents. Parents depend on health professionals for information (GPs, health visitors, practice nurses) and also find friends, family and the media equally important sources of information (Bedford and Lansley 2006; Boyce 2007).

Time is a factor too. Often, it takes time to adequately communicate and explain the benefits and risks of MCI. GPs are trustworthy sources of information for parents, yet their schedules may not allow them to provide the attention many parents want. Patients have described GP appointments as rushed, and want more time to discuss MCI (McMurray *et al* 2004; Evans *et al* 2001). Many GPs agree, and have expressed difficulty in communicating concepts related to safety to parents in the time available (Henderson *et al* 2004; Yarwood *et al* 2005). GPs in areas with high levels of social deprivation – areas that often have low uptake of MCI – feel particularly pressured for time (Davis *et al* 2000).

High-quality and cost-effective care

There is one piece of NICE guidance relating to immunisations, as shown in the box below.

NICE guidance relating to immunisations

PH21 Guidance on differences in the uptake of immunisations (including targeted vaccines) in people younger than 19 years

NICE guidance (NICE 2009) recommends ensuring GPs and their teams:

- are up to date on Department of Health guidance
- adopt a multi-faceted co-ordinated immunisation programme
- have training to improve their communication skills
- are able to answer questions about different vaccines
- improve rates for all groups
- target those with transport, language or communication difficulties, and those with physical or learning disabilities.

It is recommended that all health care professionals who advise on immunisation receive training 'to ensure that parents are provided with accurate and consistent information to allay any concerns or misconceptions about vaccines' (Samad *et al* 2006). They need to communicate accurate information on benefits of vaccines and associated risks (Aston *et al* 2001). They also (including GPs) often have a poor understanding of vaccines, and lack precise information on them (Petrovic *et al* 2001; Smith *et al* 2001; Schmitt *et al* 2007; Deady and Thornton 2006). For example, during the drop in the uptake of the MMR vaccine, only one in five GPs stated that they had not read centrally provided material on MMR vaccine (Petrovic *et al* 2001).

The way information is conveyed is also important. A GP's attitude is an important determining factor in vaccine acceptance. If the GP is unsure, often the parent remains unsure (Gust *et al* 2004). However, there is a fine line between being supportive of vaccines and pressurising parents. Some research argues that health care professionals need to be enthusiastic, and not cautious, when communicating information about vaccines (Schmitt *et al* 2007). However, other sources find that parents can feel as if they are receiving biased information from health care professionals, and feel pressurised to vaccinate (Evans *et al* 2001; Sporton and Francis 2001; Casiday 2006).

Parents' views on when they prefer to receive information on immunisation is fairly mixed. Some prefer it before the baby's birth (32 per cent), others during the first health visitor's call (41 per cent) and others still (33 per cent) at the six-to-eight-week check (Bedford and Lansley 2006). GPs need to respond to the individual needs of their patients. At times this may require GPs to go beyond simply providing information. Personal experience and knowledge of diseases influence parental perceptions about the seriousness of diseases and their likelihood of being affected by it (Yarwood *et al* 2005; Boyce 2007).

Other interventions have been shown to increase MCI uptake. A Cochrane review of patient-reminder studies in the United Kingdom, Australia, Canada, Denmark and New Zealand identified a number of effective reminder and recall interventions, including postcards, letters, telephone calls and auto-dialler calls (Jacobson *et al* 2005; Gellin *et al* 2000; Gust *et al* 2004; Mills *et al* 2005). Providing several reminders, and reminding people over the telephone, were most effective but also most costly (Jacobson *et al* 2005). Reminding parents about the next vaccination during a vaccination visit is also effective (Shaw and Barker 2005). Focusing on improving immunisation support and education to doctors and nurses is more likely to improve uptake than strategies directed at overcoming access barriers (Petousis-Harris *et al* 2004, 2005).

GPs are paid for reaching coverage targets, but health visitors, nurses, pharmacists and midwives also have important roles in educating and informing the public about vaccines. Less is known, and further research needed, about how the practice immunisation system – which includes the skill mix of all those who immunise (GPs, practice nurses and health visitors) – is related to immunisation coverage (Lamden and Gemmell 2008).

Measuring high-quality care and variations in quality

Good quality care in MCI is measured by the vaccine uptake at GP level. There are variations in uptake in most immunisation programmes. This demonstrates the need to target interventions at low-uptake groups and by vaccination. For example, in a study of 6,444 children in London, MMR uptake was highest among Asian children and lowest among white children (Middleton and Baker 2003). Particular groups have traditionally low vaccination uptake. One-third of children passing through a refuge for women who were victims of domestic violence had incomplete immunisations (Webb *et al* 2001). In the 1999 national meningococcal C vaccine campaign 33 per cent of children in public care did not receive the vaccine, compared with 14 per cent of children at home (Hill *et al* 2003).

The size of practices does not appear to impact on the ability to deliver the MCI programme. Lamden and Gemmell's (2008) study of 257 general practices in Cumbria and Lancashire found no association between practice size and clinical staffing levels. The high uptake of most MCI demonstrates

that high-quality care can be achieved. When uptake rates decline, each vaccine needs to be considered for its own issues and solutions, as parents accept and reject different vaccines for different reasons.

4 Secondary prevention: smoking cessation (case study B)

In England smoking prevalence has fallen since the 1970s, but recently this rapid decline has slowed. In 2008, about one-fifth (22 per cent of men and 21 per cent of women) aged 16 and over smoked. However, self-reported smoking rates are estimated to be under-reported by 2.8 per cent (West *et al* 2007), so the real smoking rates may be higher.

The Department of Health introduced a network of smoking cessation services (SCS) in 2000. SCS are offered within or outside GP settings. In GP settings, practices employ their own staff or fund external staff to carry out these tasks. This review focuses on what GPs are currently known to do when promoting smoking cessation, and what the literature says about the effectiveness of various smoking cessation approaches.

Current practice and quality of health promotion and ill-health prevention

Current smoking cessation practice involves a GP enquiring about a patient's smoking status and subsequently recording this status. These are the first steps in an effective smoking cessation intervention as indicated by the NICE, the Health Education Authority/Thorax and the US Department of Health and Human Services guidelines. Virtually all English GPs (98 per cent) report following these steps (McEwen *et al* 2005):

We are very proactive with smoking cessation clinics. All of our nurses are smoking cessation advisors. We have also got quite a lot of education regarding alcohol and trying to help people with problems with alcohol.

(Salaried GP, north-west England)

The interviewees we spoke to saw the systematisation of activity provided by QOF as both helpful but also restrictive. However, the way in which the QOF system provides prompts and reminders has helped to ensure that practices try and reach people.

If we haven't asked in the last year, or if they're flagged as a smoker, then [we'll say] 'Have you thought about stopping? Where's your head on it? Did you know we can help you stop smoking? Did you know NHS has got a quitline?'... Even the patients who don't come to the practice regularly, we'll write to them if we know they're smokers, or have been smokers, and say 'Look, if you're still a smoker, did you know that you can stop smoking?', and we send them a leaflet on how to stop smoking.

(GP partner, London)

Notably, there is no QOF incentive in place for intervening with smokers who do not have co-morbidities. This may partly explain why quit rates in young people have declined, as young people are less likely to have co-morbidities, so their GPs are not incentivised to discuss their smoking status with them.

NICE guidance recommends that GPs offer drug therapy – nicotine replacement therapy (NRT) or bupropion – and ongoing support from professionals trained in smoking cessation, either within or outside the practice, to all smokers who are motivated to quit. NICE guidance emphasises the importance of negotiating a quit date and prescribing for four

weeks or less at the first consultation, with a second consultation to renew supplies and reinforce motivation (Wilson *et al* 2006).

Despite the SCS, smokers are more likely to depend on their doctor or another health professional to help quit smoking (Wilson *et al* 2006). Quit rates double when NRT or bupropion are used alongside specialist support (West *et al* 2000). However, little is known as to how NRT and bupropion are used in general practice and whether guidelines are being followed (Wilson *et al* 2005, 2006). Unassisted 12-month quit rates in the general population are in the range of 2–3 per cent, and brief interventions by GPs can increase this level by an additional 1–3 per cent (Stead 2009; Pomerleau and McKee 2005).

In absolute terms, a further 75,000–92,000 of patients per year in England could quit smoking if GPs increased the number of smoking cessation intervention initiatives by 50 per cent and accompanied them with NRT or other pharmacotherapy (West 2000; Raw *et al* 1999). Wilson *et al* (2005) also identified 'missed opportunities for prescribing smoking cessation treatments'.

GPs more frequently respond to requests for support, rather than proactively initiating their patients to stop smoking, as Wilson *et al* (2006) highlight: 'These drugs are generally prescribed according to guidelines, but in about 15% of cases no follow up in practice or referral to specialist services was offered... more active implementation of guidelines could increase the impact of general practices on the prevalence of smoking.'

This confirms findings that less than half of all GPs consistently advise patients to stop smoking (McEwen *et al* 2005; Twardella and Brenner 2005; Young and Ward 2001; McEwen and West 2001). However, the reasons for this are complex. In addition to not believing the patient is motivated enough to quit smoking, many GPs report concern about harming the doctor–patient relationship by broaching the topic of smoking cessation with a potentially unreceptive patient – deciding on balance that protecting this relationship is more important than providing a smoking cessation intervention with questionable odds of succeeding (Guassora and Gannik 2009; McEwen *et al* 2006a; McEwen *et al* 2006b; Cleland *et al* 2004; Coleman *et al* 2000).

It is estimated that advice to quit is given in only 20–30 per cent of UK primary care consultations with smokers (Coleman and Wilson 2000). Another study estimated that just 6 per cent of GPs had referred smokers to the central services and only 41 per cent had referred smokers to nurses trained in smoking cessation in the previous month (McEwen and West 2001). Other research showed that only 5 per cent of smokers had been advised about NRT by their GP (Coleman *et al* 2003).

A systematic review showed that while the majority of GPs and family physicians do not hold negative beliefs and attitudes about discussing smoking cessation with their patients, a sizeable minority do. Forty-two per cent of GPs believed that discussing smoking cessation was too time consuming, 38 per cent believed it was ineffective, and just over one-fifth (22 per cent) reported lacking confidence in their ability to discuss smoking cessation with their patients (Vogt *et al* 2005). In fact, few studies have assessed GP beliefs about smoking cessation services. Those that do exist indicate that GPs believe that, while advising smokers to stop smoking is a part of their role, providing intensive smoking cessation support is not, preferring instead to refer smokers to their practice nurse (Vogt *et al* 2007).

Many smokers fail to attend for more intensive support, even after initially agreeing to do so. A consequence of this may be that smokers try to quit unaided if their GP does not try to assist them (Vogt *et al* 2007).

There have been some efforts to encourage GPs to broach the subject. We know that English GPs are more likely to initiate discussion regarding smoking when the patient presents in the surgery with a smoking-related problem (Wynn *et al* 2002; Coleman and Wilson 1999). Meanwhile, a randomised controlled study of 74 GPs in England showed some success in overcoming GPs' concerns about harming the doctor-patient relationship by providing GPs with a simple desktop resource that triggers a smoking cessation intervention (McEwen *et al* 2006a).

Similarly, training can improve smoking cessation rates. US research demonstrates that training GPs in effective delivery of smoking cessation interventions results in better outcomes, and thus higher quality prevention. Additional research supports or encourages the role of training to improve the effectiveness of public health outcomes (Zwar and Richmond 2006; Twardella and Brenner 2005; Anderson and Llopis 2004; Lancaster and Fowler 2000).

High-quality and cost-effective care

There are six pieces of NICE guidance concerning smoking cessation and further guidance and best practice offered by the Health Education Authority (as published in *Thorax*), shown in the box below.

| NICE guidance relating to smoking cessation | |
|--|--|
| PH1 | Brief interventions and referral for smoking cessation in primary care and other settings (not GP) |
| PH 5 | Workplace interventions to promote smoking cessation |
| PH10 | Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities |
| PH14 | Guidance on preventing the uptake of smoking by children and young people |
| PH23 | School-based interventions to prevent the uptake of smoking among children |
| PH26 | How to stop smoking in pregnancy and following childbirth |

There is a vast body of literature identifying good-quality smoking cessation in general practice, ranging from the effectiveness of various pharmacotherapy and behavioural interventions to the role of public policy and government, in the form of pharmacotherapy, brief interventions and further training. Each of these is described in turn.

Pharmacotherapy

The use of pharmacotherapy, such as nicotine replacement therapy (NRT), varenicline or bupropion, with or without a brief GP intervention, increases

quit rates considerably, by between 1.5 and 3 times (Cahill *et al* 2009; Stead *et al* 2009; Hughes *et al* 2009; Sutherland 2002; Silagy *et al* 2001; Sippel *et al* 1999; Raw *et al* 1999). In addition, pharmacotherapy has been shown to be cost-effective (NICE 2008b, Matrix Knowledge Group 2009): 'Fifteen percent of smokers who use the Stop Smoking Service do not smoke after 12 months compared with 5% who quit on their own. However, only 7% of smokers use the Stop Smoking Service' (Vogt *et al* 2007).

Brief interventions

Evidence demonstrates that brief smoking-cessation interventions within general practice are effective. Brief interventions are generally defined as lasting between five and 10 minutes, and include one or more of the following:

- asking the patient to stop smoking
- assessing the patient's willingness to stop
- offering pharmacotherapy and/or other behavioural support
- providing self-help materials
- referring the patient to specialist counselling.

Although there is some variation in reported success rates of these interventions, brief interventions have quit rates of 10–20 per cent (Buffels *et al* 2006; Rennard and Daughton 2000; Sutherland 2002; Pieterse *et al* 2001; Sippel *et al* 1999; Aveyard *et al* 2007).

There is some debate within the literature regarding the optimal degree of brevity versus the intensity of these interventions (Stead 2008; Aveyard *et al* 2007). Some argue that the move toward guidance favouring 'intensive' brief interventions is misguided (Aveyard and Foulds 2009). However, brief interventions have repeatedly demonstrated their utility and cost-effectiveness, regardless of intensity (West 2000; NICE 2008b; Matrix Knowledge Group 2009; Parrott and Godfrey 2004).

Further training

Following a brief GP-led smoking cessation intervention, referring patients to specialist programmes – such as those offering behavioural support, or even guidance to telephone helplines – has been shown to enhance rates of smoking cessation (Aveyard and Foulds 2009; McEwen 2005).

Referral rates to SCS are low, but training sessions have been shown to improve the number of referrals (McRobbie *et al* 2008). Indeed, there is evidence of a lack of knowledge among GPs on how to affect behaviour change when working with addiction, even among GPs who regularly initiate smoking cessation interventions, indicating the need for further specialised training for GPs (Coleman *et al* 2004). One potential training approach identified by a systematic review as worthy of further consideration is motivational interviewing – a technique that helps patients adhere to treatment regimes (Knight *et al* 2006).

Measuring high-quality care and variations in quality

Detailed smoking statistics are available from the Department of Health and the Office of National Statistics. QOF achievement also provides information on what percentage of GPs are asking their patients about smoking. With so many GPs achieving excellent recording of smoking, the differences between recording and actual quit rates can help to demonstrate the variation in quality in smoking cessation services.

Another sign of high-quality care may be a reduction in quit rates of hardcore smokers, as evidence is unclear about how GPs should raise and discuss the issue of smoking with this group (Vogt *et al* 2007; MacIntosh and Coleman 2006). If GPs are able to increase the quit rates for hardcore smokers, which is more difficult to achieve, this may indicate better quality care.

5 Secondary prevention: cardiovascular disease (case study C)

Cardiovascular disease (CVD) comprises two distinct conditions, coronary heart disease (CHD) and stroke. The British Heart Foundation calculates that more than 3 million people in the United Kingdom are living with CVD or stroke, and CVD accounts for 198,000 deaths in England and Wales every year (with a slightly higher rate in Scotland).

The mortality rates from CVD have been falling steadily for several decades, but the precise point at which this trend began is hotly debated, with some claiming it started in the 1980s or 1990s, while others claim it to be as early as 1950 (NICE 2008a; Colpo 2006). However, there is a great deal of evidence showing the levelling off or gradual decline in the incidence and mortality for CVD in most western European countries.

Current practice and quality of health promotion and ill-health prevention

For general practice this is an incentivised area, with a large evidence base and clear guidance. Similar to smoking-cessation advice, GPs are aware of guidance related to statins and preventing cardiovascular disease, but they do not always carry out the recommendations.

In one example, Heneghan *et al* (2007) found that: 'almost all practitioners (99%) were aware of the guidance on statin therapy but fewer than half (43%) adhered to the recommendation in practice.' This pattern was constant over a wide range of interventions, such as verbal advice on lifestyle change, blood pressure monitoring, and anti-hypertensive therapy. However, the authors did note that for those interventions for which there was a specific financial incentive, the adherence to guidelines was greater.

Despite research showing that GPs are now testing more patients for cholesterol levels, and are prescribing lipid-lowering drugs in more cases, and at an earlier stage (Bartholomeeusen 2008), testing and prescribing are still not in accordance with the UK guidelines (Phatak *et al* 2008). Many patients with CVD – particularly women – are incorrectly diagnosed and inadequately treated in primary care (Khunti *et al* 2007).

Other studies have revealed similar patterns in hospital care. The largest audit of stroke prevention conducted in the United Kingdom looked specifically at the current practice for secondary prevention of patients hospitalised after stroke (Rudd *et al* 2004). In a high proportion of hospitals, patients were not treated according to national guidelines, as the authors describe: 'Too many patients are suffering strokes, with known risk factors untreated and there are evidently systematic reasons in delivering effective universal prevention after stroke, both within the hospital and in primary care.'

The study found that patients aged over 75, and those with more severe disability after stroke, were less likely to receive appropriate secondary prevention. Among the patients followed up six months after discharge, it found that: 'a high proportion of patients were without appropriate treatment, or treated risk factors uncontrolled' (Rudd *et al* 2004).

High-quality and cost-effective care

NICE has published a number clinical and public health guidance relating to cardiovascular disease, shown in the box below.

NICE guidance relating to cardiovascular disease

| | |
|-------|--|
| PH 15 | Reducing the rate of premature deaths from cardiovascular disease and other smoking-related diseases: finding and supporting those most at risk and improving access to services |
| PH25 | Guidance on the prevention of cardiovascular disease at the population level |
| CG34 | Hypertension: management of hypertension in adults in primary care |
| CG 67 | Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease |

The strategy for preventing CVD mortality comprises three separate elements.

- **Interventions to reduce various risk factors in the general population** These include providing diet and lifestyle information on topics such as smoking cessation, saturated fat intake, exercise and reducing salt intake.
- **Guidance on primary prevention of CVD** This has an emphasis on identifying patients at high risk. One way of doing this is through the risk score sheets. These allow a GP to assess an individual's 10-year risk of a first CVD event and propose options for the diagnostic and therapeutic management of the patient. They include factors such as ethnicity, smoking habit history, family history of CVD, measurements of height and waist circumference, blood pressure, non-fasting lipids and non-fasting glucose. The guidance also recommends that any adult from 40 years of age upwards who has no history of CVD or diabetes and who is not already on treatment for blood pressure or lipids should be considered for opportunistic risk assessment in primary care.

For primary prevention, NICE guidance recommends that the threshold for statin treatment be reduced by half, to a 20 per cent CVD 10-year risk.

- **Secondary prevention in patients with established CVD** This includes the modification of lipids (through the prescribing of statins).

The strategies and guidelines have been the target of criticism. One criticism concerns the lowering of the risk thresholds for statin treatment, arguing that lower thresholds will result in large numbers of patients becoming eligible for treatment. The NHS strategy will result in over 80 per cent of English men aged 65–74 being categorised as high risk, meaning that a fair proportion of middle-aged adults will be on lifelong treatment. Others argue that the strategy leads to inappropriate treatment:

Many patients coming to my clinics are taking statins even if their baseline cholesterol is only just above normal and no account [is taken] of any change in risk with age. It strikes me as absurd to be starting an 84 year old patient on lipid lowering agents, but the protocol for lipid management seem to have resulted in completely uncritical prescribing phenomenon, largely driven by targets and without regard for common sense.

(Bamjri 2008)

For further discussion, see also Hippisley-Cox and Coupland (2010).

Despite the requirement for evidence-based indicators, cholesterol levels are clearly not a strong screening indicator for CVD. It has been argued that serum cholesterol measurement was not a good screening test, and would 'never have been considered seriously as a screening test for ischemic heart disease (CVD). in aetiological terms, the association is not sufficiently strong for it to be used as a screening test – in practice, its screening performance is poor' (Wald *et al* 1999; see also Ray *et al* 2010).

Arguably the increased attention on high cholesterol has been a success, as it has led to a significant reduction in people with high cholesterol. Between 1994 and 2006 the number of men aged 65–74 with high cholesterol reduced from 87 per cent to 54 per cent, but nevertheless the rate of coronary heart disease for this age group has stayed about the same (Allender *et al* 2008).

Despite this research, the testing of serum cholesterol measurement was incorporated into the QOF – a system that encourages GPs to test and actively reduce levels of serum cholesterol despite strong evidence that such an approach may not be justified. The impact of the QOF on GP activity is also of greater concern.

NICE's guidance on lipid modification (NICE 2008a) suggests that in order to lower the risk of CVD, patients should be offered lifestyle advice and be advised to eat a diet low in saturated fats, including five portions of fruit per day (another area where there is little supportive evidence of effectiveness). However, instead of an increase in ill-health prevention, the pressure to ensure that patients' cholesterol levels are lowered has led to a steady growth in the use of statins.

While the increased use of statins can be seen as an achievement, there is some evidence that the quality of care in incentivised areas such as CHD had been increasing anyway (Campbell *et al* 2007). This is likely to increase as GPs undertake MOT health checks for patients aged between 40 and 74. There is good evidence that secondary cardiac prevention programmes delivered in general practice are as effective as other approaches, but that access and referral to – and uptake and completion of – cardiac rehabilitation is severely constrained (Bethell *et al* 2008).

In terms of secondary prevention in cardiovascular disease, there is evidence that GPs are more active, but is it unclear how effective this activity is. In relation to coronary heart disease, general practice has been identified as an ideal setting for delivering secondary prevention. However, the evidence indicates that provision is not as effective as it could be, and that while the provision of secondary prevention can be improved by using specific disease management programmes, the optimal mix of their components remains uncertain (Cupples *et al* 2008; McAlister *et al* 2001).

Measuring high-quality care and variations in quality

Current evidence suggests that those in lower socio-economic groups have their cancer diagnosed at a later stage, and are less likely to participate in cardiovascular screening thus affecting treatment options and outcomes (Adams *et al* 2004; Soljak *et al* 2009). A study of Scottish GPs identified important sex and age differences in the care of patients with stroke and suggested a need to target women and older people for secondary prevention therapy (Simpson *et al* 2005).

The QOF has removed some of these inequalities, yet inconsistencies remain. Even when controlling for higher disease prevalence, there are higher rates of statin prescribing in general practices that serve deprived populations (Ashworth *et al* 2007). The same authors also identified lower prescribing volume in practices with higher proportions of older people and black and ethnic minority ethnic groups. The relationship between access, prevention and population characteristics is complex. For example, while socially disadvantaged groups have lower rates of angiography this is not true for minority ethnic groups generally (Jones *et al* 2004).

6 Prevention in all areas: obesity (case study D)

Unlike tobacco use, which has been identified as a public health priority for decades, the obesity epidemic is a more recent phenomenon. In the developed world, while tobacco use is largely declining, or has levelled off, the prevalence of obesity or of being overweight is increasing rapidly. A 2007 study of 168,000 patients in 63 countries found that 64 per cent of men and 57 per cent of women were overweight or obese (Balkau *et al* 2007). In 2007 in England, 24 per cent of all adults were classified as obese – an increase of 37.5 per cent since 1993 – along with 16.5 per cent of children aged 2–15 – an increase of 11.5 per cent since 1995 (Information Centre 2009).

Current practice and quality of health promotion and ill-health prevention

In general practice, approaches to obesity reduction are inconsistent. Access to appropriate support services is inconsistent, and until 2006 there was an absence of national practice guidelines (NAO 2001). Until NICE introduced guidance in 2006, GPs' approach to obesity treatment was remarkably similar to that eventually recommended by NICE guidelines – namely, to offer advice on diet and exercise and, in certain situations, to offer pharmacotherapy and referral to a weight-loss specialist (NAO 2001).

In addition to following NICE guidance, GPs are now incentivised to record each adult patient's weight. In 2006 the QOF introduced an obesity indicator requiring GPs to record the BMI of their adult patients. Only five of the 80 clinical indicators achieve the 100 per cent target and obesity is one of these that has achieved full adherence. However, its impact on reducing weight has yet to be established.

An important factor when analysing obesity in general practice is that patients and GPs alike believe that treating obesity should not be a priority for GPs, because obesity is a lifestyle or personal issue and not a medical condition or chronic disease. Most GPs regard obesity – both its treatment and genesis – as being largely the responsibility of the patient, and believe that their capacity to effect positive change in their obese patients' weight status is seriously limited (Ogden and Flanagan 2008; Epstein and Ogden 2005; Hankey *et al* 2003; Ogden *et al* 2001; Eley Morris *et al* 1999).

GPs are less inclined to blame their young obese patients, and hold less negative and stigmatised views of them but, as with their obese adult patients, their approaches to treatment demonstrate a sense of futility and lack of confidence (van Gerwen *et al* 2008).

Thus, it is not surprising that many GPs believe that 'obesity does not belong within the medical domain' (Ogden and Flanagan 2008). In addition, and similarly to smoking-cessation interventions, GPs are hesitant to raise the issue of weight loss with obese patients if they feel it will negatively impact their relationship with the patient (Epstein and Ogden 2005; Michie 2007). This has led to the under-utilisation of pharmacotherapy and weight-loss surgeries, as less than 40 per cent of GPs view these options as effective, despite their evidence-based inclusion in practice guidelines both for adults and young people (Ogden and Flanagan 2008). Part of the reason for this under-utilisation is that GP practice staff state that they lack the expertise and resources to challenge obesity – particularly in terms of childhood obesity (Turner *et al* 2009).

In contrast to GPs, public health and obesity experts view obesity as a chronic disease, and see health care professionals as having a key role to play in reducing it. Michie (2007) surveyed GPs and practice nurses about their role in reducing obesity and concluded there was 'considerable room' for GPs, in particular, to discuss weight more frequently with their overweight patients.

High-quality and cost-effective care

NICE has issued a number of public health and clinical guidance relating to obesity, as shown in the box below.

| NICE guidance relating to obesity | |
|--|--|
| PH2 | Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling |
| PH8 | Guidance on the promotion and creation of physical environments that support increased levels of physical activity |
| PH11 | Guidance for midwives, health visitors, pharmacists and other primary care services to improve the nutrition of pregnant and breastfeeding mothers and children in low income households. |
| PH17 | Promoting physical activity, active play and sport for pre-school and school-age children and young people in family, pre-school, school and community settings (not aimed at GP) |
| PH 13 | Intervention guidance on workplace health promotion with reference to physical activity (not aimed at GP) |
| CG 43 | Obesity: full guidance |

Research findings, and the subsequent approaches to obesity treatment and management, are rapidly being updated. Experts recommend that obesity is treated as a chronic disease (similar to hypertension or diabetes) for purposes of patient evaluation, assessment of risk status and subsequent treatment and management (Padwal *et al* 2003; Aronne 2001; Kushner and Weinsier 2000). This approach recognises that maintaining weight loss requires life-long commitment, management and effort by the individual, the GP and the broader health care system.

Clinical practice guidelines for the treatment of overweight and obesity in adults and young people in the United Kingdom, Australia, Canada and the United States demonstrate a remarkable degree of similarity. Guidance recommends a combination of (Pratt *et al* 2009; NICE 2006b; Lau *et al* 2007; National Health and Medical Research Council 2003; National Institutes of Health 1998):

- lifestyle and behavioural alterations (nutritional changes, increased levels of physical activity, cognitive behavioural interventions and support)

- the addition of pharmacotherapy in certain instances
- the use of weight-loss surgery (WLS), when indicated, for very obese or high-risk patients .

The amount of WLS performed increased by 900 per cent between 1998 and 2004 (Blackburn *et al* 2009), presumably owing to a growing body of evidence supporting its long-term effectiveness (Blackburn *et al* 2009; Colquitt *et al* 2009) and its inclusion in clinical practice guidelines for both adults and young people (Pratt *et al* 2009; NICE 2006b; Lau 2007; National Health and Medical Research Council 2003; National Institutes of Health 1998). For similar reasons, the use of pharmacotherapy is also expanding, as are the number of options available on the market.

For general practice, research suggests a number of strategies to follow – most involving the wider GP team. NICE guidance advises primary care professionals, such as GPs, to opportunistically and proactively carry out brief interventions and advise patients to exercise and improve their diet.

Referral to commercial slimming services has good long-term outcomes (Lavin *et al* 2006; Lowe *et al* 2001). Commercial slimming services have been found to be more effective than support from GP, with one study finding that patients managed by their GP lost an average of 3.9 kg compared to those who completed a year of Weight Watchers, who lost nearly 7 kg (Boseley 2010). In the past, most primary care trusts have offered these schemes. Two-thirds of PCTs have worked with Weight Watchers (Boseley 2010). While this intervention has been shown to be effective, other evidence is emerging that it is not cost-effective (Cobiac *et al* 2010), and this may be increasingly the case when GPs become responsible for commissioning services such as commercial slimming services.

Evidence also supports the role of the wider GP team in reducing obesity. An evaluation of a specialist health visitor-led weight management clinic in primary care was effective in increasing weight loss, and patients found the health visitor 'fundamental to its success' (Jackson *et al* 2007). Partnering with other health care providers, such as dieticians, has also been found to be effective in increasing weight loss (Eley Morris 1999; Pritchard *et al* 1999; Hankey *et al* 2003). However, evidence of the cost-effectiveness of these interventions is limited (Matrix Knowledge Group 2009).

Another intervention is the exercise referral scheme. However, these schemes have had limited success in increasing levels of activity, and were found to be more costly than usual care. It was also found that increased levels of activity are not maintained long term, and attendance is poor (Williams *et al* 2007; Lawton *et al* 2009). NICE recommends that exercise referral schemes should be commissioned as part of a properly designed and controlled research study to determine their effectiveness (NICE 2006a). Instead of using schemes referring patients to local gym or sports providers, some GPs run their own exercise classes:

The gym used to ask for too many clinical details, which we weren't happy to divulge, so we stopped doing that. But they have tried to set up an exercise class in-house, which is free to patients that want to use it.

(GP registrar, London)

The effectiveness and cost-effectiveness of initiatives such as this have yet to be carried out.

Measuring high-quality care and variations in quality

Detailed obesity statistics are available from the Department of Health and the Office of National Statistics. QOF achievement also provides information on the percentage of GPs asking their patients about their body mass index (BMI). Unlike smoking cessation, which has largely produced positive population-based results, research concludes that it is much more difficult to achieve long-term weight loss. Various explanations for this have been suggested, but most cite the complex nature of obesity, including the impact and interaction of various combinations of social, cultural, psychological and biological factors (Lau *et al* 2007; Ikeda *et al* 1999; National Health and Medical Research Council 2003).

7 Discussion and conclusion

The roles for GPs are increasing. Every consultation is an opportunity to detect early-warning signs that prevent illness and disease. Sensible, timely and appropriate interventions can help make people aware of the potential risks they are taking.

(Field 2010)

This report provides a brief overview of four issues in public health. But there are many more areas in which general practice can contribute to preventing ill health and promoting public health. As Steve Field, president of the RCGP, indicates in the article extracted above, GPs have an increasing responsibility to prevent illness and improve health, and indeed there is an enormous potential for general practice to take a much more proactive role in ill-health prevention and public health.

In the same article, Field goes on to state that GPs cannot singlehandedly change the health of the nation but that they need to actively 'play their part'. Providing more proactive ill-health prevention should not overwhelm GPs: there is a limit to what GPs can be expected to do. But they do need to work with their wider GP teams, in partnership with their wider communities, to improve public awareness of the range of services offered locally. Working in partnership and integrating ill-health prevention into their current work will help to make public health policies more sustainable.

As this review has shown, the 'amorphous nature of public health, and the complexity of the primary care setting, presents a particular challenge to public health leadership' (Wirrmann and Carlson 2005). One of the challenges faced by general practice in meeting the quality agenda in terms of public health and ill-health prevention is the lack of evidence related to interventions to be carried out by primary care practitioners. Evidence about the effectiveness and cost-effectiveness of public health interventions is growing – particularly with the impact of NICE's public health evidence. However, more needs to be done to help understand how general practice can effectively tackle ill-health prevention. General practice, public health practitioners and academics all have the responsibility to work together to improve this evidence base.

The changing role of GPs

GP commissioning provides a new set of challenges for public health and ill-health prevention. If GPs are commissioning services, then they should have a wider public health role. There is little understanding of the potential impact of GP commissioning on public health and ill-health prevention. Research on practice-based commissioning helps with this. Research found that in practice-based commissioning GPs focused more on preventing 'unnecessary' hospital admissions than on primary prevention (Thorlby and Curry 2007). Similarly, analyses of private primary care found that GPs used traditional models of general practice, and did not address key public health problems (Coulter 2006; Peckham 2007).

As such, in order to integrate ill-health prevention into general practice, researchers have suggested that GP budgets for commissioning health

services should be aligned with budgets for commissioning public health (Smith and Thorlby 2010). It is essential that future contract negotiations discuss and assign responsibility for primary and secondary prevention.

The QOF provided a stimulus to develop health promotion in many GP practices, and there has been a great deal of discussion about extending the coverage of the QOF to include other public health categories. However, as this brief report shows, some caution needs to be exercised when considering how such incentives should be used. Threshold payments, the focus on single clinical risk factors, and poor evidence of effectiveness limit the overall effectiveness of incentive mechanisms.

Whitehead *et al* (2009) recommend that 'Consideration should be given to including more primary preventive activities in the QOF, where these activities are appropriate for general practice and can be operationalised as QOF indicators. However, the QOF should not be viewed as the only vehicle for promoting primary prevention within general practice.'

The QOF is an opportunity for public health and general practice to work together, and public health can provide practical information to help incentivise general practice to address these issues:

A public health department really ought to be looking at doing our QOF analysis and saying actually 'Do you know, you are 2 per cent lower than the practice next door on thyroid problems. Let's see why that is.' They don't do that. They don't look at my practice... I want to see a PH department that is actively engaged with the practices, that is linked to the practices to say 'OK, we have got a named link for you. You have got a public health-type issue, you come to this guy and he will be the conduit through which the rest of the department will work with you.'

(GP partner, London)

Improving the evidence base

The significant gaps in the evidence base for primary prevention interventions in primary medical care affects what ill-health prevention general practice is able to carry out. In advocating a health-promoting general practice model, there is a need for better evidence to demonstrate 'health benefits for local communities ...and also a need to identify potential practical and organisational difficulties' (Watson 2008). For example, general practice also plays an important prevention role for conditions problems in mental health, eye care, oral health, mobility and, possibly, auditory problems. There is some limited literature in these areas (especially for mental health and eye care), but further work is needed to identify effective preventive interventions in primary care.

The structures and responsibilities both of general practice and public health are changing. It is crucial that their relationship improves, and that they regard each other as partners in improving the health and preventing disease. With the growing evidence base, NICE guidance (which is improving each year) and changing responsibilities, the time is ripe for primary care and GPs to become more proactive, in order to improve their work in public health and ill-health prevention.

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