Primary care and public health both work to improve the population’s health. The potential benefits of improved integration between these disciplines have however not been fully seen because of the lack of a structured way to deliver the integration. This article reviews the benefits, models of working, and challenges to the integration of public health and primary care. General practitioners with special interests (GPwSI) have now been created and formally recognised in clinical roles in the United Kingdom. It is proposed that the creation of GPwSI in public health offers an ideal model of a way of achieving integration and ensuring public health is delivered in primary care.

It is time for a closer integration of public health and primary care. There have been many calls for this over the years, which have outlined a long list of benefits that would result. While some historical and international examples have been inspirational what has been lacking is a formal way to bring this about. The need to find ways of improving integration is especially timely in the United Kingdom where public health has embraced the “new public health” agenda and focused on the wider determinants of health. It has seen the integration of other disciplines within the formal organisation of public health and the appointment of non-medical specialists to the director of public health role. These changes in public health may be taking it away from primary care.

General practice has changed dramatically with new contractual arrangements and the expansion of roles of health care professionals other than doctors. General practitioners (GPs), while still concerned with the prevention of disease, are now focusing on delivering national quality targets and maintaining a wide multidisciplinary primary care team. Despite GPs commitment to public health being reaffirmed many may find they have less time and energy to consider wider health issues. Those doctors working in public health who have had previous experience of working in general practice, are likely to find that experience becoming out of date.

There is a clear need to bridge this gap. The development of integrated posts would foster further sharing of skills and experience. The development of such posts will first be considered from the UK perspective arguing that the newly developed general practitioner with special interest (GPwSI) role offers a unique opportunity to develop such a workforce. The international application of this model will also be considered.

THE BENEFITS OF INTEGRATION

Primary care trusts in England and Wales have a threefold charge: to improve the health of their population, to deliver primary care, and to commission secondary health care. To do this effectively they will need to draw on all the resources they have. Primary care, and within this general practice, is one of the most important of these resources.

The importance of primary care lies in four key areas. Firstly, it is a source of local knowledge and data. Primary care is the main contact point for the population with the health service (there are 890 000 contacts with a GP or practice nurse each day in England) and this is set to increase with new targets for chronic disease management and the expanding health care team. Primary care can also provide local data for health profiling: with increasing computerisation the amount and quality of these data should improve. The local knowledge and data should be used to ensure that the development of local health services and the commissioning of services are based on need, and are locally appropriate.

Secondly, primary care provides an important context for the delivery of health promoting as well as curative services. Thirdly, primary care can play an important part in local health advocacy and developing local collaboration. The primary care team has wide links with the local community and they, especially GPs, are still held in esteem. Finally, primary care has some core approaches that espouse a public health view, for example having a lifelong view of a patient’s health, thinking of populations (although only at practice population level), and multidisciplinary working (although often limited to other health and social care workers).

The benefits of better integration of these primary care resources with public health can be seen from table 1.

MODELS OF INTEGRATION

In the early 20th century many GPs performed the public health role of medical officer of health in their districts, for example Dr Will Pickles, who applied an epidemiological and community approach to infectious disease epidemics. Perhaps the closest integration of the roles of GP and public health physician is seen in the work of Julian Tudor Hart who suggested that general practice should perform the public health function. Tudor Hart described a “new kind of doctor” who would not only care for the individual needs of patients but would also look beyond the walls of the health centre. This would entail considering the health not only of those who do attend, but also the health of those who do not attend. Likewise he saw an important role for the doctor to be involved in the local area and its wider health needs, and being an advocate for the health of the population.

Similar, although less revolutionary, was the “community general practitioner” described by Mant and Anderson where there would be cooperation between general practice and public health doctors. They proposed that a specifically trained GP would be responsible for auditing the practice health, monitoring and controlling environmental disease, planning local services, auditing the effectiveness of preventive programmes, and evaluating the effects of medical intervention. They felt that eventually all public health...
It has been argued that the combination of public health and general practice that is being sought by primary care organisations is best seen in the community oriented primary care (COPC) model. The COPC model was developed by Sidney and Emily Kark in South Africa in the 1940s and has been extensively reviewed. COPC has been defined as the continuous process of planned integration of public health practice with the delivery of primary care services to a defined community so that those services are based on assessed health needs. COPC has been implemented in various forms throughout the world and holds further opportunities for collaboration between GPs and public health.

Recently in the British NHS the need to implement government policy has seen the development of a more service based model of integration of general practice and public health. GPs have been given a lead role in the primary care organisation in topic areas such as the National Service Framework for Coronary Heart Disease, clinical governance, or commissioning. This draws on the GPs experience of both health care system and medical knowledge, while integrating them with the public health skills they may have.

### THE CHALLENGES

There are a number of key challenges to be faced in the development of roles that integrate primary care and public health. Firstly there is that of time. Most of those working in primary care are struggling to find the time necessary to deal with the burden of paperwork, appraisals, clinical guidelines, and in helping to avoid conflict. The shared understanding providing a focus of work, a modus operandum of working, standing of models of health will help in defining values, and how they might influence the way they work. These are contrasted in table 2 with the social or public health model of health, which considers the impact of wider determinants on health. The models need not be mutually exclusive and practitioners may find that they move between them, for example using a biomedical model to treat a child at an accident but later moving to a public health model to consider tackling dangerous accident sites. A shared understanding of models of health will help in defining values, providing a focus of work, a modus operandum of working, and in helping to avoid conflict. The shared understanding should be held not only at general practice level, but also within primary care organisation management and public health teams.

The final challenge is the development of organisational support for the role. The integrated role will need organisations who understand the longer timescales required for public health results and therefore offer long term contracts, help in handling unrealistic expectations, offer encouragement and technical support.

### THE WAY FORWARD

The newly created post of GPwSI creates the ideal way to deliver a role that integrates public health and primary care. GPwSIs have been recently established by the Department of

<table>
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<tr>
<th>Table 1</th>
<th>Benefits of greater integration between public health and primary care</th>
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<tr>
<td><strong>Area of primary care</strong></td>
<td><strong>Benefits to public health and primary care</strong></td>
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<tr>
<td>Local knowledge and data</td>
<td>Primary care data collection and improvement in data quality</td>
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<tr>
<td></td>
<td>Data interpretation and needs assessment</td>
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<td>Commissioning of appropriate services</td>
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<td>Service delivery</td>
<td>Primary and secondary care service design</td>
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<td></td>
<td>Primary and secondary care service delivery</td>
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<td>Monitoring, evaluation, and quality improvement</td>
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<td>Research</td>
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<tr>
<td>Advocacy and collaboration</td>
<td>Networking GPs being local champions for health</td>
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<tr>
<td></td>
<td>Contributing collaboratively to health improvement and tackling health inequalities</td>
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<tr>
<td></td>
<td>Providing leadership and promoting a public health view</td>
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<tr>
<td>Public health approach</td>
<td>Primary care workforce development</td>
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<tr>
<td></td>
<td>Platform for development of shared understanding</td>
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<tr>
<th>Table 2</th>
<th>Models of health</th>
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<tr>
<td><strong>Models of health care</strong></td>
<td><strong>Description of a doctors approach</strong></td>
</tr>
<tr>
<td>Biomedical</td>
<td>The body-mind is seen as a machine, and it is the GPs job to fix the broken “machine” in front of them.</td>
</tr>
<tr>
<td>Humanist</td>
<td>Illness is seen within the patients personal and psychological context and the doctor is encouraged to explore this with the patient (as per Balint”)</td>
</tr>
<tr>
<td>Anticipatory care</td>
<td>Care is centred on individual health promotion, for example performing cervical cytology and immunisation</td>
</tr>
<tr>
<td>Business/consumer</td>
<td>Providing a “good service” is important and so the practice focuses on patient choice and experience and maximizing profits</td>
</tr>
<tr>
<td>Family</td>
<td>The patient is seen within the context of the family, the doctor thereby modifies their approach by their knowledge of that context</td>
</tr>
<tr>
<td>Social/public health</td>
<td>The doctor sees the patients’ health within a social and environmental context and seeks to influence these to promote health</td>
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</tbody>
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Health to develop clinical specialist GPs, who in addition to working in general practice develop a specialist area. An example of this might be cardiology where a GP takes referrals from fellow GPs to reduce hospital appointments and improve patient care.18 GPwSI in service development have been created and the potential for GPwSIs in other non-clinical areas such as education, research, and management has been recognised.19 To date the benefits of developing a GPwSI in public health has not been formally recognised (although development work is being undertaken).

Developing a GPwSI in public health would mean that a GP would have suitable training, a recognised role, and appropriate remuneration to practice both general practice and public health. This would provide legitimacy for the GP public health role and provide sufficient time to carry it out. The personal benefits to the GP would be the same as a clinical GPwSI; increased job satisfaction, improved retention, and delay of burnout.20

The GPwSI in public health might work in a number of ways through adopting Tudor Hart’s community approach, using the tools of COPC or taking the lead in a specific area for a primary care organisation. There are however a number of other areas where they might make an impact. The GPwSI might provide leadership to other GPs to advise on how their practices can contribute to health improvement and help to broaden the role of GPs within their communities. They might work to increase the public health skills of other GPs in key strategic positions within a primary care trust.

Primary care contains many people from the wider public health workforce; practice nurses, health visitors, district nurses, school nurses. It has been recommended that if public health is really to improve then this wider workforce must fully contribute. With the key role that a GP has within primary care, a GPwSI would be well placed to ensure the engagement of the wider GP workforce. There may be future potential for these other disciplines to develop specialist interest posts in public health using the frameworks that have been published for nurses, and allied health professionals, to pursue special interests.21 Furthermore, a reciprocal arrangement where public health consultants could spend some time working in primary care would also help integration.

The dearth of health data to monitor the public health persists.21 The new GP contract and the NHS investment in information technology will, for the first time, provide local and national information on diseases, risk factors, medications, and outcomes. The GPwSI would be able to lead the work of a modern day Pickles including interpreting chronic disease data and ensure resources target inequality.22 The trend towards larger GP practices might aid this epidemiological data collection and allow alignment to communities. A number of GPwSIs in public health might work together as a “Pickles collaborative” to produce health profiles in the local population. Larger practices might also allow more opportunities for sub-specialisation by GPs in public health.

GPwSIs in public health will work in a variety of roles but the integration of the public health/social model of health is likely to mean that all their work will be identified by certain hallmarks. These will include; a lifelong approach, multi-sectoral working with the population, adopting a population as well as a high risk approach, tackling health inequalities, and monitoring and evaluating work. It will not be enough for the GPwSI to be a lone charismatic person but it will be up to them to ensure that GPs are seen as a core component of the local public health delivery system.23

**WHY NOW?**

The recent changes in the public health systems in all four countries in the United Kingdom have raised concerns about shortages of specialists in public health who are medically and non-medically qualified.24 The development of new roles and creative approaches to providing public health skills has been advised.25 Public health should not miss out on this opportunity to develop GPwSI in public health.

As most public health teams have now become established in their new primary care organisations, they will be seeking to plug any potential gaps in skills and experience. The recent changes within public health have meant that primary care trust public health teams can now exist without a medical person involved, a GPwSI in public health might help to fill the resultant gap in medical skills. A recent survey of directors of public health in the north west of England

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**Table 3** Tasks need to be undertaken to establish the role of GPwSI in public health

<table>
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<tr>
<th>Level</th>
<th>Task needed</th>
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| Faculty of Public Health and Royal College of General Practitioners | 1. Define competencies and training required  
2. Identifying potential roles and responsibilities  
3. Establish formats for accreditation and appraisal |
| Primary care trust and local authority     | 1. Agree a model of health and vision for potential contribution  
2. Establish flexibility of resources to pay for time and for resulting projects  
3. Offer avenues for salaried, PMS, or GMS doctors |
| Public health team                        | 1. Adjusting team working to accommodate a “part time” person  
2. Clearly define management structure  
3. Define local accountability, agree responsibility, resources and support  
4. Training |
| GPwSI                                     | 1. Acquire suitable training for accreditation in public health, for example, MPH, DFPH, MFPH  
2. Maintain competence and appraisal  
3. Negotiate agreed model of practice |

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**What this paper adds**

- Proposes a vehicle for the integration of public health and primary care doctors which has long been sought.
- Explores the potential of the newly created post to provide a means of integration and a new career path.
- Practical steps that need to be taken at national and local level to establish GPwSI in public health.

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**Policy implications**

The post of GPwSI public health should be defined and recognised nationally as have GPwSI in clinical specialties.
showed that while only four had a GP working on the public health team, 19 of the 20 that responded would like to have a GPwSI on their team (Gardner and Hoskins, unpublished data).

WHAT NEEDS TO BE DONE
To develop a GPwSI in public health work is going to be needed at various levels. Table 3 outlines some key tasks that need to be undertaken at different levels. Work is already being progressed at each of these levels.

APPLYING THE GPwSI MODEL TO OTHER COUNTRIES
Formal ways that primary care and public health can be integrated in various countries are going to depend largely on the position that primary care holds within the health care system, and the stage of development of the country. Some developing countries, for example Tanzania, have primary care paramedics who deliver basic curative and public health functions, like health prevention, health promotion, and education. At a village level there is therefore some integration of roles, but it is unclear whether this model can be sustained when such countries move through the epidemiological shift from a predominance of infectious diseases to chronic diseases.

Developed countries such as the Netherlands, Spain, and Greece have health care systems similar to that in the UK, where the GP is the gatekeeper of secondary care and has a commitment to defined population. Clearly in these countries there is the potential to develop a role like that of the GPwSI in public health. In countries like Germany or the USA, where patients are free to choose which doctor to see, creating a structured role that integrates general practice and public health is likely to be more challenging, although it can be achieved.

CONCLUSION
GPs working with a public health perspective and taking on a public health function provide a unique and exciting way to bridge the traditional gap between public health and primary care. They would help primary care to look beyond the surgery walls, to consider the local population and to tackle health inequalities and health improvement in an innovative and evidence-based way.

Developing a defined role, for example a GPwSI in public health would offer at last a legitimate and structured way for health inequalities and health improvement in an innovative and evidence-based way. At a village level there is therefore some integration of roles, but it is unclear whether this model can be sustained when such countries move through the epidemiological shift from a predominance of infectious diseases to chronic diseases.

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