

Workforce and skill mix in GP services

Why this research was needed?

The number of GPs per head of population has declined since 2009 and there are major problems of recruitment and retention, as highlighted by several reports¹⁻⁴. Pressures on GPs include a rapid rise in the number of consultations, complexity of cases due to frailty and deprivation⁵. Unless urgent action is taken, the UK will face with a serious shortage of GPs within the next few years. There are many reasons, among them are that fewer medical students are opting for a career in general practice, the GP workforce is ageing, younger doctors are opting to work part-time, and many older doctors are opting to retire early⁶.

The General Practice Forward View describes plans for investments in workforce. These include investments in training and capacity of practice nurses and managers to support the expanded role of GP services as providers⁷. Implementing these role and skill-mix changes in teams will pose new challenges and opportunities to re-think the skills and capabilities of the expanded GP team⁸.

What we found from NIHR studies

NIHR has commissioned studies that address some of these issues.

NHS111

GPs are part of a network of out of hospital services, each requiring a range of clinical skills, only some of which may be best provided by medically qualified GPs. GPs are trained to provide to patients of all ages a service offer of initial triage, investigation, treatment, support for long term conditions, as well as a more recent focus on public health and prevention. To match clinical and health service navigational skills to demand, services are exploring alternative approaches.

Turnbull studied five NHS111 services between 2011-14. The study found that underpinning NHS111 with non-clinical workers offers significant opportunities for workforce reconfiguration, but this is not a simple substitution of labour (i.e. non-clinical staff replacing clinical staff). There is a significant organisational structure that is necessary to support and 'keep in place' both the computer decision support system (CDSS) itself and non-clinical workers using the CDSS.

The researchers recommend that well developed decision support systems and clarity of roles of GP clinicians and clinical assistants is needed to ensure the revised skill-mix achieves efficient and safe care. These clinicians may not welcome the constraints on clinician's practice in a highly protocol driven service. The study found relationships were more harmonious in sites that were co-located and/or that had a history of working together. In GP services where non clinical staff may be trained to provide assessment and initial advice or signposting, Turnbull's findings for NHS 111 services suggest that defining roles, protocols and shared access to clinical systems, and having opportunity for both on-line and face-to-face clinical advice, will be welcomed by practitioners and may enable new working practices to develop safely.

Physiotherapy Direct

Telephone triage and consultation systems have been introduced to assess and advise patients with a wide range of problems in GP services. This approach could be particularly appropriate for the assessment and treatment of musculoskeletal (MSK) problems, which

are one of the most common reasons for consulting a GP⁹. A system developed in Huntingdon in 2001 became the basis of the PhysioDirect service evaluated in four PCT areas.

PhysioDirect services invited patients to telephone a physiotherapist for initial assessment and advice, followed by face-to-face physiotherapy and advice on over the counter analgesia if necessary. Usual care involved patients joining a waiting list for face-to-face treatment¹⁰. The Physiotherapists required training to modify their consultation skills via telephone with a PC based protocol and algorithm recording system, and a period of consolidation to be confident in the safety of their practice.

Salisbury conducted a Randomised Controlled Trial (RCT) comparing PhysioDirect to usual primary care models of physiotherapy (patients being referred by a GP or practice nurse or self-referral)¹¹. PhysioDirect patients had fewer face-to-face appointments, fewer clinical incidents, shorter waiting times and lower rates of non-attendance. Clinical outcomes showed modest differences at 6 weeks but not by 6 months. The study concluded that providing physiotherapy via PhysioDirect is equally as clinically effective as usual waiting list-based face-to-face care with a physiotherapist. PhysioDirect patients were no more satisfied with access to physiotherapy than usual care patients, but had slightly lower satisfaction overall at six months, although they were more likely than usual care patients to prefer PhysioDirect in future. There were trade-offs between faster access and a less personal service, and some regarded it as a first step towards subsequent face-to-face consultation¹². In this study most patients were referred by their GP, and the study authors note that direct access is likely to become the norm, although it may create demand by patients with less urgent or clinically appropriate problems.

Physician Assistants

In countries such as England and other developed countries, alternatives to consultation provided entirely by medically qualified GPs, via a team approach including mid-level trained practitioners with primary care medical or nursing training is increasing. The physician assistant role has been established in several countries, notably, the USA since the 1960s, but only more recently in the UK.

NIHR funded studies have evaluated the role of physician assistants (PAs) in primary care. PAs are mid-level practitioners, trained in a medical model over 2 years at postgraduate level to work under a supervising doctor. Between 2010-14, Drennan's research team found 49 studies, mainly from the USA, which showed increased numbers of PAs in general practice settings but weak evidence for impact on processes and patient outcomes^{13, 14}. Their survey of GP practices employing PAs in 2008, and a survey two years later of 16 of the estimated 25 PAs employed in primary care found that PAs are employed in a broad range of patient-focused activities such as same day and urgent consultations, reviewing test results^{15 16}.

In their case studies of 12 practices employing 6 PAs, they found that physician assistants (PAs) were found to be acceptable to patients and colleagues, effective, clinically competent and efficient in complementing the work of GPs. After adjusting for case-mix, there was no difference in the rates of procedures, investigations or tests ordered or undertaken, prescriptions, referrals and advice on over-the-counter medicines, between PAs and GPs. Costs per consultation were £34.36 for GPs and £28.14 for PAs. Costs could not be apportioned to GPs for interruptions, supervision or training of PAs. But PAs tended to be consulted by more patients with less medical acuity or complex comorbidity. So overall the cost effectiveness is still to be established. In order to maximise the contribution of PAs in primary care settings, consideration needs to be given to the appropriate level of regulation and the potential for authority to prescribe medicines, as they do in other countries. Patient

satisfaction with both PAs and GPs is high, with no difference in responses in the two groups. Observation of 62 consultations and rating by experts blind to whether the clinician was a GP or PA showed they were of equivalent safety and competence with similar patients, but GPs also saw more complex patients¹⁷. Their potential contribution to GP urgent care was not explored in this study. They offer another labour pool to consider in health professional workforce and education planning at local, regional and national levels¹⁸.

Retaining GPs-study - underway

As it takes at least 10 years to train a GP, recruiting more GPs is not an immediate solution, and understanding how we can retain the existing workforce is essential. A study in progress (14/196/02) lead by Professor John Campbell and a team at Exeter University finishing in October 2017 aims to gain insight into the problems of GPs quitting direct patient care through retirement or taking a career break, and will help provide strategies and policies for the NHS in seeking to maintain the GP workforce
<https://www.journalslibrary.nihr.ac.uk/projects/1419602>

In addition to understanding the complex reasons for decisions about quitting face-to-face care, the study will develop policies and strategies that may address these issues. They will also develop computer models that will help identify which general practices may be at risk in terms of maintaining their GP workforce over the next five years. Thus, the policies and strategies to be developed through this research could potentially be targeted at the practices most likely to benefit from them.

What are the implications of this research?

GP clinicians can support non cliniciains to conduct triage in NHSIII services, and effectiveness may depend on having agreed protocols and ways of working with clear roles.

Services such PhysioDirect, particularly if they can be accessed directly rather than following referral from a GP, have the potential to increase choice, provider faster access and to reduce overall demand for primary care management of MSK problems.

Physican Assistants can substiute for GPs safely for a range of patient facing activities, but further evaluation is needed to determine if their practice leads to unintended additional health service use of secondary care, and if their role can extend to a wider range of types of consultation, such as management of patients with long term and complex co-morbidities. Lessons from current research into retention of GPs can be targetted at those Practices most likely to face a crisis in workforce retention, and local evaluation of the success of the strategies may be used to spread these methods more widely.

NHS Policy context of GP workforce and skill mix:

In the UK, GPs have been trained as expert medical generalists who undertake almost all aspects of diagnosis, care and case management. The vision of primary care described by the Roland Commission aims to provide challenging and fulfilling careers for health professionals while delivering a high standard of care¹. For this vision to be adopted by the NHS at speed and scale will require practices and GP federations to have a stronger population focus and an expanded workforce. In order to achieve this vision there needs to be sufficient staff with appropriate training to do the work that is needed in primary care⁷,, and individual staff members need to have the skills to evaluate what they are doing and be empowered to improve the systems in which they are working.

New models of primary care are changing this with integration across social care and

secondary healthcare, and aggregation into federations. GP federations are being supported in building business infrastructure, which will also impact on how the workforce is deployed, for example increasing the use of IT for shared clinical and management data, and paper free point of care systems; secondary care communications are expected to be all digital by 2020⁷.

The General Practice Forward View describes significant plans for investments in workforce⁷. These include investments in training and capacity of practice nurses and managers to support the expanded role of GP services as providers, enhanced roles for nurses, allied health professionals (AHPs), paramedical professionals, and enhanced roles for administrative staff in patient facing roles. It has been argued that a “*Greater use of skill mix will be key to releasing capacity, if we are to offer patients with complex or multiple long-term conditions longer GP consultations*”. There are also potential contributions for these professions in the network of locality primary care access Hubs and for clinical personnel in NHS111, employing nurses, pharmacists and dentists. In England, NHSE’s Sustainability and Transformation Plans aim to expand the GP workforce by the addition of 5,000 GPs by 2020¹⁹. There will also be 500 physician assistants; 3,000 mental health therapists, 1500 more clinical pharmacists, with 470 employed in 2016-17, and 1,000 physician associates.

1. Primary Care Workforce Commission. *The future of primary care: creating teams for tomorrow. The Roland Commission*. 2015.
2. Royal College of General Practitioners. *Patient safety implications of general practice workload*. 2015.
3. Nuffield Trust. *Health and social care priorities for the Government: 2015–2020. Policy briefing*. London: Nuffield Trust. 2015.
4. Smith J, Holder HNE, Maybin J, et al. *Securing the future of general practice: New models of primary care*. London: King's Fund and Nuffield Trust. 2013.
5. Hippisley-Cox J, Vinogradova Y. Trends in consultation rates in General Practice 1995/1996 to 2008/2009: Analysis of the QResearch® database. Final report to the NHS Information Centre and Department of health. Leeds: The NHS Information Centre for health and social care; 2009. Available from: <http://content.digital.nhs.uk/catalogue/PUB01077/tren-cons-rate-gene-prac-95-09-95-09-rep.pdf>
6. Centre for Workforce Intelligence. *In-depth review of the general practitioner workforce: Final report*. 2014.
7. NHS England. *General Practice Forward View*. 2016.
8. Clay H, Stern R. *Making Time in General practice: Freeing GP capacity by reducing bureaucracy and avoidable consultations, managing the interface with hospitals and exploring new ways of working*. 2015.
9. Bunn F, Byrne G, Kendall S. Telephone consultation and triage: effects on health care use and patient satisfaction. *Cochrane Database of Systematic Reviews* 2004, Issue 3. Art. No.: CD004180. DOI: <http://dx.doi.org/10.1002/14651858.CD004180.pub2>.
10. Bishop A, Gamlin J, Hall J, Hopper C, Foster NE. PhysioDirect: Supporting physiotherapists to deliver telephone assessment and advice services within the context of a randomised trial. *Physiotherapy* 2013;**99**:113-8. <http://dx.doi.org/10.1016/j.physio.2012.08.002>

11. Salisbury C, Foster N, Hopper C, Bishop A, Hollinghurst S. A pragmatic randomised controlled trial of the effectiveness and cost-effectiveness of 'PhysioDirect' telephone assessment and advice services for physiotherapy. *Health Technology Assessment* 2013;**17**:157. <http://dx.doi.org/10.3310/hta17020>
12. Pearson J, Richardson J, Calnan M, Salisbury C, Foster NE. The acceptability to patients of PhysioDirect telephone assessment and advice services; a qualitative interview study. *BMC Health Services Research* 2016;**16**:104. <http://dx.doi.org/10.1186/s12913-016-1349-y>
13. Drennan V, Halter M, Brearley S, Carneiro W, Gabe J, Gage H, *et al.* Investigating the contribution of physician assistants to primary care in England: a mixed-methods study. *Health Serv Deliv Res* 2014;**2**. <http://dx.doi.org/10.3310/hsdr02160>
14. Halter M, Drennan V, Chattopadhyay K, Carneiro W, Yiallourous J, de Lusignan S, *et al.* The contribution of Physician Assistants in primary care: a systematic review. *BMC Health Services Research* 2013;**13**:223. <http://dx.doi.org/10.1186/1472-6963-13-223>
15. Drennan VM, Chattopadhyay K, Halter M, Brearley S, de Lusignan S, Gabe J, *et al.* Physician assistants in English primary care teams: A survey. *Journal of Interprofessional Care* 2012;**26**:416-8. <http://dx.doi.org/10.3109/13561820.2012.686538>
16. Drennan V, Levenson R, Halter M, Tye C. Physician assistants in English general practice: a qualitative study of employers' viewpoints. *Journal of Health Services Research & Policy* 2011;**16**:75-80. <http://dx.doi.org/10.1258/jhsrp.2010.010061>
17. de Lusignan S, McGovern AP, Tahir MA, Hassan S, Jones S, Halter M, *et al.* Physician Associate and General Practitioner Consultations: A Comparative Observational Video Study. *PLOS ONE* 2016;**11**:e0160902. <http://dx.doi.org/10.1371/journal.pone.0160902>
18. Drennan VM, Halter M, Joly L, Gage H, Grant RL, Gabe J, *et al.* Physician associates and GPs in primary care: a comparison. *British Journal of General Practice* 2015;**65**:e344-e50. <http://dx.doi.org/10.3399/bjgp15X684877>
19. NHS England. *Sustainability and transformation plans*. 2016.