Evidence Brief: Primary Care Workforce

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Produced by the HEE Knowledge Management team Evidence Briefs offer a quick overview of the published reports, research and evidence on a workforce-related topic. A starter for 10 on the evidence if you will.
Key publications – the big picture

**The Primary Care Network Handbook** BMA, March 2019

This handbook offers options to groups of practices looking to establish a primary care network (PCN). It includes detailed guidance on: governance structures; internal governance and decision-making; potential PCN structures and employment options; PCN funding; and PCN future workforce options.

**Closing the gap: key areas for action on the health and care workforce** The King’s Fund, March 2019

This report sets out a series of policy actions that, evidence suggests, should be at the heart of the workforce implementation plan. It focuses on nursing and general practice where the workforce problems are particularly severe. See Chapter 5 on “Workforce Redesign” and Chapter 7 “Modelling the impact of reform and funding nursing and GP shortages”.

**Primary Care Networks explained** The King’s Fund, March 2019

Key part of the NHS long-term plan, primary care networks will bring general practices together to work at scale. But how will they be formed, funded and held accountable? And what difference will they make? Beccy Baird explains the latest form of GP collaboration.

**The NHS Long Term Plan** NHS, January 2019 (updated February 2019)

The NHS Long Term Plan was developed in partnership with those who know the NHS best – frontline health and care staff, patients and their families and other experts. See Chapter 1 for “dissolving the divide between primary and community health services” and “primary care networks”.

**Investment and evolution: a five-year framework for GP contract reform to implement the NHS Long Term Plan (GP Contract)** BMA and NHS England, January 2019

This agreement between NHS England and the BMA General Practitioners Committee (GPC) in England, and supported by Government, translates commitments in The NHS Long Term Plan into a five-year framework for the GP services contract. We confirm the direction for primary care for the next ten years and seek to meet the reasonable aspirations of the profession.
Facing the Facts, Shaping the Future: a draft health and care workforce strategy for England to 2027 NHS, December 2017

The NHS needs radical action to improve working conditions, boost training and become a ‘model employer’ for staff, a report on the future of health and care workforce has concluded. See p. 23 for “Primary Care” and p. 59 for detail on “Primary Care” as a workforce priority.

Guidance on co-locating mental health therapists in primary care NHS England, August 2018

This guidance document has been created to assist GPs, practice managers and commissioners who are integrating mental health therapists into primary care pathways by providing information on how to do this.

The state of care in urgent primary care services Care Quality Commission, June 2018

Urgent primary care services play a vital role in England’s healthcare system. They are the first step to ensure that people are seen by the professional best suited to deliver the right care and in the most appropriate setting. A quick, safe and effective response from these services provides a good outcome for patients and takes pressure off other parts of the system. See pp. 10-11 for discussions about “Capacity”; “Recruitment and Retention” and “Widely dispersed seasonal workforce”.

Primary Care Home (PCH): Evaluating a new model of primary care – a research report National Association of Primary Care (NAPC), August 2017

The NAPC commissioned the Nuffield Trust to undertake a formative evaluation of the early development of the OCH model in RTSs between July 2016 and March 2017. The NAPC wanted to evaluate whether the implementation of the four characteristics of the PCH model across local services and initiatives would deliver improved outcomes across the quadruple aims.

The General Practice Nursing Workforce Development Plan Health Education England, March 2017

This report promotes the importance of general practice nursing, as well as providing details of potential workforce issues and provides appropriate recommendations. It sets out clear recommendations to improve the recruitment, retention and return of the general practice nursing workforce.
Supporting the development of community pharmacy practice within primary care New NHS Alliance, June 2016

There are nearly 11,700 community pharmacists in England. Each pharmacy serves a catchment population of approximately 5,000 people. It is widely quoted that 1.6m people walk into a pharmacy every day meaning that a pharmacy may have 136 people that walk in every day. Many of these pharmacies are open extended hours and many over 85 hours a week. All community pharmacists have significant clinical training within their degree course and pre-registration training. This is further developed in practice and through continual professional development. All community pharmacies have an area reserved for confidential conversations with people away from the main counter area.


This review outlines 5 important themes that underpin the response to developing a workforce for 2021 and provides a clear pathway and plan to achieve the ‘new’ workforce.

See also “Fit for the Future Progress Report” (2019)

General Practice Forward View (GPFV) NHS England, April 2016

The GPFV represents a step change in the level of investment and support for general practice. It includes help for struggling practice, plans to reduce workload, expansion of a wider workforce, investment in technology and estates and a national development programme to accelerate transformation services. See Chapter 2 for “Workforce”.

Case Studies

Integrated care in action – primary care NHS Long Term Plan, March 2019

For many people, their first point of contact with the health service is through primary care (such as GPs, pharmacy, dentistry and eye health). There are almost four times as many patient contacts with these services compared to hospitals. This case study shows how integrated care systems are redesigning primary care services.

Clinical pharmacists in general practice: The Old School Surgery, Bristol NHS Long Term Plan, March 2019
This video case study explains the role of clinical pharmacists in general practice, clarifying when and why patients might see a clinical pharmacist.

**Musculoskeletal (MSK) First Contact Practitioners: The Deepings Practice** NHS Long Term Plan, March 2019
GP Dr Majid Akram and physiotherapist Phil Richards discuss how the successful implementation of a new musculoskeletal (MSK) first contact practitioner role at The Deepings Practice in South Lincolnshire has resulted in better outcomes for patients and helped to reduce GP workload.

**Paramedic-led home visiting service in Wokingham** NHS Long-Term Plan, January 2019
A group of GP practices in Wokingham, Berkshire are to provide a better and more responsive service for their patients. Their teams of health professionals are working with other health and care services to manage the many different needs of their patients. This includes a service where patients that need an urgent home visit are quickly seen by a paramedic to understand what further support or treatment is needed with patients with the most complex needs are seen by their GP. These prompt home visits have increased the number of patients that can be managed at home, reducing the number of people needing to go to hospital with one patient saying: “I was happy to be seen so quickly and the paramedic assured me there was no concern.” GPs have more time to spend with patients with complex needs and closer working an earlier involvement in social services and community teams means patients get a better service, specific to their needs.

**Improving care for patients with long term conditions** NHS Long Term Plan, January 2019
David, a patient at New Court Surgery, described how access to GP online services such as his GP record and online test results, helps him to better manage his health. Staff at the surgery also explain how access to GP online services is revolutionising and improving care for patients with long term medical conditions, including those who, like David, have diabetes.

**Integrated care for children’s health in London** NHS Long Term Plan, January 2019
Our health and care system needs to adapt to the changing care needs of children and young people. One in ten if our children suffer mental health problems, which can affect them for life if they don’t get the right support early. In North West London they have set up GP child health hubs which brings together primary care, mental health and acute community services to look at all the aspects of a child’s health and wellbeing. The result is better care for children and their families.

*HEE Knowledge Management Team, updated April 2019*
Healthier Fleetwood: transforming care for patients
NHS Long Term Plan, January 2019

GP practices in Fleetwood, Lancashire are working in partnership with local residents, charities and other health services to change the way they provide care from simply managing people's illnesses towards helping people improve their lifestyles and preventing illnesses from developing. The Healthier Fleetwood scheme is based in the local Health and Wellbeing Centre and puts on events such as free sports lessons, a Harmony and Health singing group and mental health support classes to support local people to make life changes to support their long-term health and wellbeing.

HEE Star

More resources and tools are available in the “Primary Care” section of the HEE Star:
https://www.hee.nhs.uk/our-work/hee-star

Statistics

You can find relevant statistics on the Health and Care Statistics Landscape under “Primary & Dental Care & Oral Health”
https://gss.civilservice.gov.uk/hc-statistics-landscape/
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Published Peer Reviewed Research

New ways of working

*Facilitators and Barriers to Interdisciplinary Communication between Providers in Primary Care and Palliative Care* Journal of Palliative Medicine, March 2019

The objective of this study was to understand the facilitators and barriers to optimal, coordinated interdisciplinary provision of CBPC. Conclusion(s): Our findings suggest that processes are needed that promote communication, including structured communication strategies between PCPs and SPC providers, clarification of role boundaries, enrichment of nonspecialty providers’ competence in GPC, and enhanced access to CBPC.

*NHS long term plan: three new models of care that could be replicated across England* British Medical Journal, January 2019

One of the flagship pledges in the NHS’s eagerly awaited long term plan,1 published on 7 January, was to create joined up integrated care systems in every area of England by April 2021. Local organisations from the NHS and local government will be expected to work more closely “in a pragmatic and practical way” to deliver the “triple integration” of primary and secondary care, physical and mental health services, and health and social care.

New ways of working: delivering better care for people with long-term conditions* London Journal of Primary Care, September 2017

BACKGROUND The cost-effectiveness of the traditional outpatient model for specialist care provision is increasingly being questioned in view of the changing patient needs, workforce challenges and technological advances. SETTING This report summarises two RCGP London events showcasing new ways of delivering care for long-term conditions. DISCUSSION-CONCLUSIONS Different models to the traditional outpatient long-term condition care are feasible and can result in improvements in the quality of care and staff satisfaction. However, such initiatives require careful planning, close collaboration between health care professionals and allocation of appropriate resources and training within primary care. There is also a need for systematic evaluation of such pilots to assess their cost-effectiveness and their acceptability to clinicians and patients. This requires systematic collection of population level data, agreement on the key outcomes for evaluation and a commitment of all stakeholders to sharing learning and resources to enable continuous improvement.

*Exploring interprofessional collaboration during the integration of diabetes teams into primary care* BMC Family Practice, February 2016
BACKGROUND Specialised diabetes teams, specifically certified nurse and dietitian diabetes educator teams, are being integrated part-time into primary care to provide better care and support for Canadians living with diabetes. This practice model is being implemented throughout Canada in an effort to increase patient access to diabetes education, self-management training, and support. Interprofessional collaboration can have positive effects on both health processes and patient health outcomes, but few studies have explored how health professionals are introduced to and transition into this kind of interprofessional work. CONCLUSIONS Our findings provide insight into how healthcare professionals who have not traditionally worked together in primary care are collaborating to integrate health services essential for diabetes management. Based on the experiences and personal reflections of participants, establishing new ways of working requires negotiating space and place to practice, role clarification, and frequent and effective modes of formal and informal communication to nurture the development of trust and mutual respect, which are vital to success.

Influences on the adoption of patient safety innovation in primary care: a qualitative exploration of staff perspectives BMC Family Practice, May 2018

BACKGROUND Primary care is changing rapidly to meet the needs of an ageing and chronically ill population. New ways of working are called for yet the introduction of innovative service interventions is complicated by organisational challenges arising from its scale and diversity and the growing complexity of patients and their care. One such intervention is the multi-strand, single platform, Patient Safety Toolkit developed to help practices provide safer care in this dynamic and pressured environment where the likelihood of adverse incidents is increasing. Here we describe the attitudes of staff toward these tools and how their implementation was shaped by a number of contextual factors specific to each practice. CONCLUSIONS The concept of a balanced toolkit to address a range of safety issues proved popular. A number of barriers and facilitators emerged in particular those tools that provided relevant information with a minimum impact on practice resource were favoured. Individual practice circumstances also played a role. Practices with IT aware staff were at an advantage and those previously utilising patient safety initiatives were less likely to adopt additional tools with overlapping outputs. By acknowledging these influences we can better interpret reaction to and adoption of individual elements of the toolkit and optimise future implementation.

A new role for primary care teams in the United States after "Obamacare:" Track and improve health insurance coverage rates Family Medicine and Community Health, December 2016

Maintaining continuous health insurance coverage is important. With recent expansions in access to coverage
in the United States after "Obamacare," primary care teams have a new role in helping to track and improve coverage rates and to provide outreach to patients. We describe efforts to longitudinally track health insurance rates using data from the electronic health record (EHR) of a primary care network and to use these data to support practice-based insurance outreach and assistance. Although we highlight a few examples from one network, we believe there is great potential for doing this type of work in a broad range of family medicine and community health clinics that provide continuity of care. By partnering with researchers through practice-based research networks and other similar collaboratives, primary care practices can greatly expand the use of EHR data and EHR-based tools targeting improvements in health insurance and quality health care.

Expanding pharmacy roles and the interprofessional experience in primary healthcare: A qualitative study
Journal of Interprofessional Care, January 2017
Athens log in required

The pharmacist role is undergoing significant changes which are reshaping the way primary healthcare is delivered throughout England. Due to increased physician workload and focus on primary healthcare, the pharmacist role has expanded to provide enhanced patient services, integrating into general practice (GP) settings and working more closely as a member of the healthcare team. However, the experiences of pharmacists and team members are yet to be explored. The proposed study aims to explore the experiences, thoughts, and perceptions of a purposive sample of pharmacists, physicians, and nurses working in 10 GP clinics throughout the southeast of England. Interprofessional relationships, power dynamics, changing professional roles, and barriers and facilitators to the integration of the pharmacist role will be explored. An exploratory multiple case study design will be used to investigate interprofessional experiences within and between clinics. In-depth interviews will be completed with each participant. A thematic analysis will identify themes and patterns from the interview data. Results are expected to
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produce recommendations to help facilitate the integration of pharmacists in their new role and will have implications for interprofessional collaboration and interprofessional education which are important for delivering safe and effective care.

**Barriers and facilitators to integration of physician associates into the general practice workforce: a grounded theory approach** The British Journal of General Practice (Journal of RCGP)

AIM To investigate the barriers and facilitators to the integration of PAs into the general practice workforce. CONCLUSION: This study highlights the complex factors that may impede the introduction of PAs into UK primary care. A conceptual model is proposed to help regulators and educationalists support this integration, which has relevance to other proposed new roles in primary care.

**Applying the guidelines for pharmacists integrating into primary care teams** Canadian Pharmacists Journal (CPJ), July 2016

BACKGROUND In 2013, Jorgenson et al. published guidelines for pharmacists integrating into primary care teams. These guidelines outlined 10 evidence-based recommendations designed to support pharmacists in successfully establishing practices in primary care environments. The aim of this review is to provide a detailed, practical approach to implementing these recommendations in real life, thereby aiding to validate their effectiveness. CONCLUSION We believe these guidelines hold up to real-life integration and emphatically recommend their use for new and existing primary care pharmacists.

**Community paramedicine model of care: an observational, ethnographic case study** BMC Health Services Research, February 2016

BACKGROUND Community paramedicine programs have emerged throughout North America and beyond in response to demographic changes and health system reform. Our aim was to identify and analyse how community paramedics create and maintain new role boundaries and identities in terms of flexibility and permeability and through this develop and frame a coherent community paramedicine model of care that distinguish the model from other innovations in paramedic service delivery. CONCLUSIONS Community engagement and situated practice distinguish community paramedicine models of care from other paramedicine and out-of-hospital health care models. Successful community paramedicine programs are integrated with health, aged care and social services and benefit from strong governance and paramedic leadership.
Achieving change in primary care--causes of the evidence to practice gap: systematic reviews of reviews
Implementation Science, March 2016
BACKGROUND This study is to identify, summarise and synthesise literature on the causes of the evidence to practice gap for complex interventions in primary care. CONCLUSIONS This comprehensive review of reviews summarises current knowledge on the barriers and facilitators to implementation of diverse complex interventions in primary care. To maximise the uptake of complex interventions in primary care, health care professionals and commissioning organisations should consider the range of contextual factors, remaining aware of the dynamic nature of context. Future studies should place an emphasis on describing context and articulating the relationships between the factors identified here.

Exploring the value of mental health nurses working in primary care in England: A qualitative study Journal of Psychiatric and Mental Health Nursing, August 2017
ABSTRACT Aims/Question General practice is typically the first point of access to healthcare. This study explores what value a Primary Care Liaison Nurse (PCLN) service, established in 2011, can bring to people with mental health problems in primary care. Method Semi-structured interviews were used to elicit participants’ experiences and perspectives on the value of a PCLN service. Participants included ten interviews with seven general practitioners and three senior practitioners working in primary care mental health services. Thematic analysis, based on a 6-phase approach, was used to describe and explore the data collected. Results Five main themes were derived from the thematic analysis of the interviews relating to: integration; clinical effectiveness; patient centred care; access; and efficiency. Discussion The study suggests that the PCLN service can improve the quality of care and is generally highly valued by its stakeholders. The study identifies particularly valued elements of the service, including having a duty worker, as well as aspects which could be improved, such as patient criteria. Implications for practice This is a relatively new service and the cost-effectiveness is not yet fully understood; however, commissioners may want to consider the potential benefits of a similar service in their area.

Integrating dietitians into primary health care: benefits for patients, dietitians and the general practice team Journal of Primary Health Care, December 2016
INTRODUCTION Dietetic service delivery in primary health care is an emerging area of dietetic practice in New Zealand. AIM This paper aims to describe the dietetic services being delivered in this setting and dietitians' perceptions of the factors that have an effect on their ability to deliver an optimal service. DISCUSSION Dietitians working in primary health care recognise the importance of being well integrated into a multidisciplinary general practice team. This enables them to deliver more
collaborative and coordinated nutrition care alongside their colleagues, to benefit patient care. Establishing flexible dietetic service delivery contracts, which support integration and take into account funding and workforce capacity requirements, may help ensure that the unique skill set of a dietitian is utilised to best effect.

_Transitioning from acute to primary health care nursing: an integrative review of the literature_ Journal of Clinical Nursing, August 2016

AIMS AND OBJECTIVES This paper seeks to explore the transition experiences of acute care nurses entering employment in primary health care settings.

CONCLUSION There is a lack of research specifically exploring the transitioning of acute care nurses to primary health care settings. To better understand this process, and to support the growth of the primary health care workforce there is an urgent need for further well-designed research.

_Nurses as substitutes for doctors in primary care_ The Cochrane Database of Systematic Reviews, July 2018

OBJECTIVES Our aim was to investigate the impact of nurses working as substitutes for primary care doctors on: patient outcomes; processes of care; and utilisation, including volume and cost. CONCLUSIONS This review shows that for some ongoing and urgent physical complaints and for chronic conditions, trained nurses, such as nurse practitioners, practice nurses, and registered nurses, probably provide equal or possibly even better quality of care compared to primary care doctors, and probably achieve equal or better health outcomes for patients. Nurses probably achieve higher levels of patient satisfaction, compared to primary care doctors. Furthermore, consultation length is probably longer when nurses deliver care and the frequency of attended return visits is probably slightly higher for nurses, compared to doctors. Other utilisation outcomes are probably the same. The effects of nurse-led care on process of care and the costs of care are uncertain, and we also cannot ascertain what level of nursing education leads to the best outcomes when nurses are substituted for doctors.

_Offers of appointments with nurse practitioners if a requested physician is unavailable_ Journal of the American Association of Nurse Practitioners, April 2017

BACKGROUND AND PURPOSE Access to primary care remains a problem for a substantial portion of the U.S. population, and is predicted to worsen due to an aging population and the increasing burden of chronic diseases. Better integration of nurse practitioners (NPs) into the primary care workforce is a possible solution. We examine offers of appointments with NPs if a requested primary care physician is unavailable. CONCLUSIONS Of 922 calls to primary care physicians serving the general
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BACKGROUND The UK Government document 5 year forward view describes the need to move chronic disease management from secondary to primary care, which will require a significant increase in the numbers of General Practice Nurses (GPNs). Until recently, there has been no specific recruitment strategy to address this increased need. In recent times, a number of solutions have been suggested to address this impending GPN recruitment crisis. For example, Health Education England (HEE) commission General Practitioners (GPs), who are members of the Advanced Training Practice Scheme (ATPS), to provide placements for student nurses within general practice.

CONCLUSIONS Despite all the challenges, the evidence is that, through the Community of Practice (CoP), the ATPS scheme is beginning to ‘bear fruit’, and there is a subtle but discernible move by GPs from a ‘why would we?’ to ‘why wouldn’t we?’ invest in education and training for nurses in general practice. N.B. The term GPN partner* denotes a GPN who is a ‘full partner’ in the practice business, holding the same NHS contracts and the same status as a GP. For the purposes of the paper itself, the term GP will be used to denote both types of partner.

Releasing GP capacity with pharmacy prescribing support and New Ways of Working: A prospective observational cohort study British Journal of General Practice, October 2018

adult population, 378 (41%) offered appointments with the requested physician. Alternate providers were offered by 63 (7%), including nine offers with NPs (<1%). Mean wait-to-appointment for NPs (3.6 days) was statistically significantly shorter (p-values < .01) than for requested physicians (22.5 days) or non-NP alternate providers (23.9 days).

Clinical pharmacists in primary care: a safe solution to the workforce crisis? Journal of the Royal Society of Medicine, April 2018

Pharmacists have been working in primary care teams for some time in non-patient roles. Areas in which they support practices include auditing for performance targets, implementation of enhanced services, preparation for inspections by the CQC, training staff in repeat prescribing and providing medicines information for other clinicians. However, these roles currently vary from practice to practice. The wide spread integration of pharmacists in both patient facing and non-patient-facing roles therefore has the potential to have impact in three key areas: safety of prescribing; improved health outcomes; and access to primary care through reduction of general practitioner workload.

GP/GPN partner* perspectives on clinical placements for student nurses in general practice: can a community of practice help to change the prevailing culture within general practice? BMC Family Practice, September 2018

HEE Knowledge Management Team, updated April 2019
Background General practice in the UK is experiencing a workforce crisis. However, it is unknown what impact prescribing support teams may have on freeing up GP capacity and time for clinical activities. Aim To release GP time by providing additional prescribing resources to support general practices between April 2016 and March 2017. Conclusion Specialist clinical pharmacists are safe and effective in supporting GPs and practices with key prescribing activities in order to directly free GP capacity. However, further work is required to assess the impact of such service developments on prescribing cost-efficiency and clinical pharmacist medication review work.

Task shifting from physicians to nurses in primary care in 39 countries: a cross-country comparative study

BACKGROUND: Primary care is in short supply in many countries. Task shifting from physicians to nurses is one strategy to improve access, but international research is scarce. We analysed the extent of task shifting in primary care and policy reforms in 39 countries. CONCLUSIONS: Many countries have implemented task-shifting reforms to maximise workforce capacity. Reforms have focused on removing regulatory and to a lower extent, financial barriers, yet were often lengthy and controversial. Countries early on in the process are primarily reforming their education. From an international and particularly European Union perspective, developing standardised definitions, minimum educational and practice requirements would facilitate recognition procedures in increasingly connected labour markets.

What works in delivering effective enhanced primary care support in care homes?

CordisBright, October 2018
As an independent evaluator of seven NHS Vanguard projects, we have been exploring and sharing key findings relevant to new models of health and social care. There were six enhanced health in care home (EHCH) vanguards across England, working to improve the quality of life, healthcare and health planning for residents through the provision of in-reach primary, secondary and community services and support.

Recruitment, retention and supply

Australian academic primary health-care careers: a scoping survey
Athens log in required
This study was undertaken to provide a snapshot of the academic primary health-care workforce in Australia and to provide some insight into research capacity in academic primary health care following changes to funding for this sector. A convenience sample of individuals self-identifying as working within academic primary health care (n=405) completed an anonymous online survey. Respondents were identified from several academic primary health-care mailing lists. The survey explored workforce demographics, clarity of career
pathways, career trajectories and enablers/barriers to 'getting in' and 'getting on'. A mix of early career (41%), mid-career (25%) and senior academics (35%) responded. Early career academics tended to be female and younger than mid-career and senior academics, who tended to be male and working in 'balanced' (teaching and research) roles and listing medicine as their disciplinary background. Almost three-quarters (74%) indicated career pathways were either 'completely' or 'somewhat unclear', irrespective of gender and disciplinary backgrounds. Just over half (51%) had a permanent position. Males were more likely to have permanent positions, as were those with a medical background. Less than half (43%) reported having a mentor, and of the 57% without a mentor, more than two-thirds (69%) would like one. These results suggest a lack of clarity in career paths, uncertainty in employment and a large number of temporary (contract) or casual positions represent barriers to sustainable careers in academic primary health care, especially for women who are from non-medicine backgrounds. Professional development or a mentoring program for primary health-care academics was desired and may address some of the issues identified by survey respondents.

**Factors associated with final year nursing students' desire to work in the primary health care setting: Findings from a national cross-sectional survey** Nurse Education Today, February 2018

OBJECTIVES This study sought to identify factors associated with final year nursing students' desire to work in primary health care setting including demographic factors, expectations of future employment conditions, and job content. It also explored expectations of graduate transition programs based in primary health care.

CONCLUSIONS Collaborative efforts from primary health care nurses, health professionals, academics and policy makers are needed to attract new graduate nurses to primary health care.

*When Do Primary Care Physicians Retire? Implications for Workforce Projections* Annals of Family Medicine, July 2016

PURPOSE Retirement of primary care physicians is a matter of increasing concern in light of physician shortages. The joint purposes of this investigation were to identify the ages when the majority of primary care physicians retire and to compare this with the retirement ages of practitioners in other specialties. CONCLUSIONS Primary care physicians in our data tended to retire in their mid-60s. Relatively small differences across sex, practice location, and time suggest that changes in the composition of the primary care workforce will not have a remarkable impact on overall retirement rates in the near future.
Work satisfaction and future career intentions of experienced nurses transitioning to primary health care employment

Journal of Nursing Management, September 2018

AIM To explore registered nurses' reflections on transitioning from acute to primary health care employment, and future career intentions. CONCLUSION Our findings provide guidance to managers in seeking strategies to recruit and retain nurses in primary health care employment.

Why Aren't More Primary Care Residents Going into Primary Care? A Qualitative Study

Journal of General Internal Medicine, December 2016

OBJECTIVE We aimed to explore contextual and programmatic factors within primary care residency training environments that may influence career choices. CONCLUSIONS Addressing aspects of training that may discourage residents from careers in primary care such as lack of diversity in outpatient experiences and resident frustration with their inability to address social needs of patients, and strengthening aspects of training that may encourage interests in careers in primary care such as mentorship and protected time away from inpatient responsibilities during primary care rotations, may increase the proportion of residents enrolled in primary care training programs who pursue a career in primary care.

Practice environments and job satisfaction and turnover intentions of nurse practitioners: Implications for primary care workforce capacity

Health Care Management Review, n.d

PURPOSE We examined NP practice environments in primary care organizations and the extent to which they were associated with NP retention measures. PRACTICE IMPLICATIONSNPs were more likely to be satisfied with their jobs and less likely to report intent to leave if their organizations support NP practice, favorable relations with physicians and administration, and clear role visibility. Creating productive practice environments that can retain NPs is a potential strategy for increasing the primary care workforce capacity.

Bolstering the pipeline for primary care: a proposal from stakeholders in medical education

Medical Education Online, 2016

The Association of American Medical Colleges reports an impending shortage of over 90,000 primary care physicians by the year 2025. An aging and increasingly insured population demands a larger provider workforce. Unfortunately, the supply of US-trained medical students entering primary care residencies is also dwindling, and without a redesign in this country’s undergraduate and graduate medical education structure, there will be significant problems in the coming decades. As an
institution producing fewer and fewer trainees in primary care for one of the poorest states in the United States, we propose this curriculum to tackle the issue of the national primary care physician shortage. The aim is to promote more recruitment of medical students into family medicine through an integrated 3-year medical school education and a direct entry into a local or state primary care residency without compromising clinical experience. Using the national primary care deficit figures, we calculated that each state medical school should reserve 20-30 primary care (family medicine) residency spots, allowing students to bypass the traditional match after successfully completing a series of rigorous externships, pre-internships, core clerkships, and board exams. Robust support, advising, and personal mentoring are also incorporated to ensure adequate preparation of students. The nation's health is at risk. With full implementation in allopathic medical schools in 50 states, we propose a long-term solution that will serve to provide more than 1,000-2,700 new primary care providers annually. Ultimately, we will produce happy, experienced, and empathetic doctors to advance our nation's primary care system.

Career planning for the non-clinical workforce - an opportunity to develop a sustainable workforce in primary care Education for Primary Care, March 2017

Many health and social care systems worldwide have been developing a variety of navigator and signposting roles to help patients negotiate care through increasingly complex systems and multiple provider agencies. This UK project aims to explore, through a combination of job description review and workshops of stakeholders, the common competencies and features of non-clinical roles. The information is collated to develop common job descriptions at four key levels. These form the basis for a career pathway supported by portfolio-based educational programmes, embracing Apprenticeship Training Programmes. The programmes have the potential to support recruitment and retention of an increasingly skilled workforce to move between traditional health and social care provider boundaries. This offers the opportunity to release clinicians from significant administrative workload and support patients in an integrated care system.

Are nurses well placed as care co-ordinators in primary care and what is needed to develop their role: a rapid review? Health & Social Care in the Community, March 2016

Athens log in required

Care co-ordination is reported to be an effective component of chronic disease (CD) management within primary care. While nurses often perform this role, it has not been reported if they or other disciplines are best placed to take on this role, and whether the discipline of the co-ordinator has any impact on clinical and health service outcomes. We conducted a rapid review of
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previous systematic reviews from 2006 to 2013 to answer these questions with a view to informing improvements in care co-ordination programmes. Eighteen systematic reviews from countries with developed health systems comparable to Australia were included. All but one included complex interventions and 12 of the 18 involved a range of multidisciplinary co-ordination strategies. This multi-strategy and multidisciplinarity made it difficult to isolate which were the most effective strategies and disciplines. Nurses required specific training for these roles, but performed co-ordination more often than any other discipline. There was, however, no evidence that discipline had a direct impact on clinical or service outcomes, although specific expertise gained through training and workforce organisational support for the co-ordinator was required. Hence, skill mix is an important consideration when employing care co-ordination, and a sustained consistent approach to workforce change is required if nurses are to be enabled to perform effective care co-ordination in CD management in primary care.

Twelve tips for the recruitment and retention of general practitioners as teachers of medical students Medical Teacher, March 2018

BACKGROUND Primary care physicians have become a fundamental aspect of teaching in modern medical school curricula worldwide with a significant proportion of undergraduate teaching taking place in primary care. There are calls for this to increase with more patient care occurring in the community but teaching capacity in primary care is a potential challenge. Medical schools, therefore, need strategies to be able to increase their primary care physician teaching workforce.

CONCLUSIONS The solutions to recruiting and retaining GPs to teach undergraduate medical students are clearly multifactorial and complex. We hope that by presenting suggestions from UK GP heads of teaching as these twelve tips provides some helpful, thought-provoking ideas and inspiration for both the UK and internationally.
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OBJECTIVE To investigate the reasons behind intentions to quit direct patient care among experienced general practitioners (GPs) aged 50-60 years. CONCLUSIONS This research highlights aspects of the current professional climate for GPs that are having an impact on retirement decisions. Any future changes to policy or practice to help retain experienced GPs will benefit from this informed understanding of GPs' views. Key factors to take into account include: making the GP workload more manageable; managing change sympathetically; paying attention to GPs' own health; improving confidence in the future of general practice; and improving GP morale.

Would 'growing our own' practice nurses solve the workforce crisis? Practice Nursing, Aril 2017
The article offers insights on the need to train a new generation of general practice nurses and the consequences of the chronic shortage of general practitioners for patient care.

A systematic review of strategies to recruit and retain primary care doctors BMC Health Services Research, April 2016
Background: There is a workforce crisis in primary care. Previous research has looked at the reasons underlying recruitment and retention problems, but little research has looked at what works to improve recruitment and retention. The aim of this systematic review is to evaluate interventions and strategies used to recruit and retain primary care doctors internationally. Conclusions: This is the first systematic review of interventions to improve recruitment and retention of primary care doctors. Although the evidence base for recruiting and care doctors is weak and more high quality research is needed, this review found evidence to support undergraduate and postgraduate placements in underserved areas, and selective recruitment of medical students. Other initiatives covered may have potential to improve recruitment and retention of primary care practitioners, but their effectiveness has not been established.

New and expanded roles
Successfully developing advanced practitioner roles: policy and practice mechanisms Journal of Health Organisation and Management, March 2019
PURPOSE: The purpose of this paper is to lay out how advanced practitioner development occurs in New Zealand primary health care settings. The paper specifically focuses on mechanisms occurring across policy creation and in practice leading to successful role development. FINDINGS: Three final mechanisms were found to influence successful advanced practitioner role development: engagement in planning and integrating roles; establishing opportunities as part of a well-defined
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New Roles for Medical Assistants in Innovative Primary Care Practices

**OBJECTIVE**
To identify and describe new roles for medical assistants (MAs) in innovative care models that improve care while providing training and career advancement opportunities for MAs. **CONCLUSIONS**
New MA roles are part of a larger attempt to reform workflow and relieve primary care providers. Despite some evidence of success, spread has been limited. Key challenges to adoption included leadership and provider resistance to change, cost of additional MA training, and lack of reimbursement for nonbillable services.

New roles in pharmacy - learning from the All Wales Common Ailments Scheme

**OBJECTIVES**
The objective of this study was to explore the perceptions of stakeholders on a national pilot of a new service, the 'Choose Pharmacy' Common Ailments Service (CAS) in Wales. **CONCLUSION**
CAS was welcomed by stakeholders in terms of its potential benefits. Results are therefore encouraging for policy makers involved in the implementation of other new roles within community pharmacy in the UK and beyond.

Registered Nurses in Primary Care: Emerging New Roles and Contributions to Team-Based Care in High-Performing Practices

The years since the passage of the Affordable Care Act have seen substantial changes in the organization and delivery of primary care. These changes have emphasized greater team involvement in care and expansion of the roles of each team member including registered nurses (RNs). This study examined the roles of RNs in 30 exemplary primary care practices. We identified the emergence of new roles and activities for RNs characterized by greater involvement in face-to-face patient care and care management, their own daily schedule of patient visits and contacts, and considerable autonomy in the care of their patients.

Registered Nurses in Primary Care: A Business Case Analysis

Primary care is evolving in response to payment reform, changes in the primary care workforce, and development of new models of work emphasizing team care. The role of registered nurses in these new models is being reexamined and reimagined, with increased registered
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nurse engagement in chart review prior to visits, histories and physicals, preliminary patient assessment, patient education and coaching in ordered care, delivery of care under standardized orders and protocols, transition planning, and care coordination. The business case for employing registered nurses in these new roles has not been fully addressed. This article examines the business case and financial issues in this expansion of practice. Under both fee-for-service and value-based, capitated, or shared saving models of reimbursement, there are strategies for increasing the number of registered nurses in primary care practices, and expanding the engagement of registered nurses that can increase net revenues for primary care practices, even when the costs of the additional staffing are taken into account.

*Pharmaceutical Role Expansion and Developments in Pharmacist-Physician* Communication Research Support, 2016

Expanded clinical pharmacist professional roles in the team-based patient-centered medical home (PCMH) primary care environment require cooperative and collaborative relationships among pharmacists and primary care physicians (PCPs), but many PCPs have not previously worked in such a direct fashion with pharmacists. Additional roles, including formulary control, add further elements of complexity to the clinical pharmacist-PCP relationship that are not well described. Our objective was to characterize the nature of clinical pharmacist-PCP interprofessional collaboration across seven federally funded hospitals and associated primary care clinics, following pharmacist placement in primary care clinics and incorporation of expanded pharmacist roles. In-depth and semistructured interviews were conducted with 25 practicing clinical pharmacists and 17 PCPs. Clinical pharmacists' indirect communication practices may hold important implications for patient safety in the context of medication use, and it is important to foster effective communication skills and an environment where all team members across hierarchies can feel comfortable speaking up to reduce error when problems are suspected. Also, the lack of institutional communication about managing drug formulary issues and related electronic nonformulary request processes was apparent in this study and merits further attention for both researchers and practitioners.

Acceptability of physiotherapists as primary care practitioners and advanced practice physiotherapists for care of patients with musculoskeletal disorders: a survey of a university community within the province of Quebec

BMC Musculoskeletal, September 2016

BACKGROUND Musculoskeletal (MSK) disorders represent a great burden on the health care system. The use of physiotherapists in their autonomous roles and in advanced practice roles may help increase access to care. Thus, the aim of this survey was to assess the perceptions of a university community sample within the
province of Quebec about physiotherapists as primary care practitioners and advanced practice physiotherapists (APPs) for the treatment of patients with musculoskeletal disorders. CONCLUSIONS Respondents are satisfied and have confidence in physiotherapists as primary care practitioners; they also support the intended new roles of the APPs in the health care system. Caution should be taken in generalizing these results from this particular sample. These results need to be corroborated in the general population.

PAs in primary care: Current status and workforce implications JAAPA (official journal of the American Academy of Physician Assistants), September 2017

OBJECTIVES Understanding the PA primary care workforce is an initial step toward greater use of primary care PAs in new healthcare delivery models. This study sought to describe primary care PA practice as it compares with PA practice in other specialties.

METHODS Data from two 2015 national American Academy of Physician Assistants surveys were analyzed using descriptive statistics. Statistically significant differences between primary care and specialty PAs were assessed using tests of column proportions and tests of column means. RESULTS Compared with PAs in specialties, primary care PAs were older, saw more patients per week, and spent less time consulting with physicians. In addition, higher percentages were Hispanic, had a record of military service, and had plans to leave their specialty or retire. CONCLUSIONS Primary care PAs appear to possess unique strengths; however, challenges to maintaining a primary care PA workforce are substantial.

Expanded roles of registered nurses in primary care delivery of the future Nursing Outlook, 2017

PURPOSE This paper explores the challenges and opportunities in primary care delivery in the 21st century and examines the likelihood of expanded roles for RNs to improve quality and add capacity to the primary care workforce. CONCLUSION For RNs to assume an expanded role in primary care, several barriers need to be overcome: (1) the widespread introduction of payment reform that reimburses RNs to independently provide care for patients, and (2) nursing education reform that includes primary care nursing skills (3) scope of practice clarification for non-advance practice RNs working under standardized procedures.

New roles for clinical pharmacists in general practice Prescriber, April 2017

In 2015, NHS England launched its scheme to fund, recruit and employ more clinical pharmacists in GP practices. Since then, pharmacists have been playing an increasingly essential role in general practice, not only by reducing the workload of GPs but by bringing additional
skills and knowledge on medicines optimisation, particularly in cases of complex polypharmacy.

A comparison of job descriptions for nurse practitioners working in out-of-hours primary care services: implications for workforce planning, patients and nursing

Journal of Clinical Nursing, March 2017

Aims and objectives To compare and contrast job descriptions for nursing roles in out-of-hours services to obtain a general understanding of what is required for a nurse working in this job. Background Out-of-hours services provide nursing services to patients either through telephone or face-to-face contact in care centres. Conclusion This study highlights key differences and some similarities between roles and job titles in out-of-hours nursing but requires a larger study to inform workforce planning. Relevance to clinical practice Out-of-hours nursing is a developing area of practice which requires clarity to ensure patient safety and quality care.

Rethinking the Primary Care Workforce - An Expanded Role for Nurses

New England Journal of Medicine, September 2016

Athens log in required

The article discusses the growing demand of physicians played by nurse practitioners (NP) and primary care in the U.S. according to workforce experts. The number of retirees exceeds the new entrants and could cause decline on primary care physician workforce which includes doctors and international medical graduates. The author believes that despite the shortage of primary care physicians in increased in chronic diseases, it forces towards stronger NPs and registered nurses on primary care.

Skill-mix change and the general practice workforce challenge

British Journal of General Practice 2018

Faced with an ageing population living with increasingly complex health needs and a shortage of GPs and nursing staff, primary care is experiencing unprecedented pressure. Workforce transformation based around new models of care and ‘skill-mix’ change in the form of 5,000 new ‘non-medical role’ to operate alongside GPs is an aspirational solution, though generating the right balance of GPs/ non-GPs is not without controversy. Although practice nurses have been working in extended roles in general practice for a long time there are other ‘new’ roles emerging.

Quality of primary care by advanced practice nurses: a systematic review

International Journal of Quality in Health Care, August 2015

The purpose was the conduct a systematic review of randomised controlled trials (RCTs) of the safety and effectiveness of primary care provided by advanced practice nurses (APNs) and evaluate the potential of their deployment to help alleviate primary care shortages. There were few differences in primary care provided by
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APNs and physicians; for some measures APN care was superior. While studies are needed to assess longer term outcomes, these data suggest that the APN workforce is well-positions to provide safe and effective primary care.

*Physician associates and GPS in primary care: a comparison* British Journal of General Practice, 2015
This study aimed to compare outcomes and costs of same-day requested consultations by PAs with those of GPs. Conclusion: the processes and outcomes of PA and GP consultations for same-day appointment patients are similar at a lower consultation cost. PAs offer a potentially acceptable and efficient addition to the general practice workforce.

**Staff perceptions**

As part of a larger evaluation investigating the role evolution of GP clinical pharmacists, this study aimed to capture data about activities performed, level of patient-facing work and perceived impact of the role on GP workload and patient care. Almost all respondents reported that they believed that their work had saved GP time and improved patient care. The most common examples given by respondents for saving GP time were related to clinical administration work. For patient care, the implementation of processes and protocols to improve patient safety in areas such as medicines reconciliation, long-term condition management, prescription processing and medication safety-netting, were commonly cited. Implementation of the GP clinical pharmacist role is perceived, by those delivering the role, to have led to an improvement in patient care through the implementation of safer systems and processes. Many activities performed are directly patient-facing, which is consistent with the NHS England vision. However, activities cited to be saving GP time are reportedly more clinical administration focused, which could impact on the potential for the role to deliver patient approval and pharmacist job satisfaction. The limitations of the study were that less than half the cohort completed the questionnaire and more experienced 'seniors' may have been disproportionately represented. Future work should focus on quantifying aspects of the role that most save GP time, the economic benefit, and evidence from GPs about benefits of the role.

*Registered nurses transitioning from acute care to primary healthcare employment: A qualitative insight into nurses’ experiences* Journal of Clinical Nursing, February 2018
AIMS AND OBJECTIVES To describe the experiences of acute care registered nurses transitioning to primary healthcare settings. CONCLUSIONS Transitioning to primary healthcare employment provides unique
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challenges which must be considered by employers if they are to attract and retain experienced acute care registered nurses

*Pharmacists’ perceptions of their emerging general practice roles in UK primary care: a qualitative interview study* The British Journal of General Practice, September 2017

AIM To explore pharmacists’ perceptions of primary care roles including the potential for greater integration of their profession into general practice. CONCLUSION There is enthusiasm and willingness among pharmacists for new, extended roles in primary care, which could effectively relieve GP workload pressures. A definition of the role, with examples of the knowledge, skills, and attributes required, should be made available to pharmacists, primary care teams, and the public. Training should include clinical skills teaching, set in context through exposure to general practice, and delivered motivationally by primary care practitioners.

*Job satisfaction and career intentions of registered nurses in primary health care: an integrative review* BMC Family Practice, August 2018

Background: There has been a significant growth of the international primary health care (PHC) nursing workforce in recent decades in response to health system reform. However, there has been limited attention paid to strategic workforce growth and evaluation of workforce issues in this setting. Understanding issues like job satisfaction and career intentions are essential to building capacity and skill mix within the workforce. This review sought to explore the literature around job satisfaction and career intentions of registered nurses working in PHC. Methods: An integrative review was conducted. Conclusion: This review identifies gaps in our understanding of job satisfaction and career intentions in PHC nurses. With the growth of the PHC nursing workforce internationally, there is a need for robust, longitudinal workforce research to ensure that employment in this setting is satisfying and that skilled nurses are retained.

Leadership

*Transformational leadership to promote nurse practitioner practice in primary care* Journal of Nursing Management, November 2018

AIM This study investigated transformational leadership from the perspectives of primary care nurse practitioners. CONCLUSION Transformational leadership can be applied to promote nurse practitioner practice in primary care. Future research should explore how transformational leadership affects nurse practitioner care and outcomes. IMPLICATIONS FOR NURSING MANAGEMENT Leaders in primary care practices should consider applying transformational leadership principles to promote nurse practitioner practice.
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Workforce planning and demographics

*Experiences of primary care physicians and staff following lean workflow redesign* BMC Health Services Research, April 2018

**BACKGROUND** In response to growing pressures on primary care, leaders have introduced a wide range of workforce and practice innovations, including team redesigns that delegate some physician tasks to nonphysicians. One important question is how such innovations affect care team members, particularly in view of growing dissatisfaction and burnout among healthcare professionals. We examine the work experiences of primary care physicians and staff after implementing Lean-based workflow redesigns. This included co-locating physician and medical assistant dyads, delegating significant responsibilities to nonphysician staff, and mandating greater coordination and communication among all care team members. **CONCLUSIONS** Our findings partially align with expectations of work redesign as a route to improving physician and staff experiences in delivering care. Although teamwork and engagement increased, the redesigns in our study were not enough to moderate long-standing challenges facing primary care. Yet higher levels of empowerment and engagement, as observed in the pilot clinic, may be particularly effective in facilitating improvements while combating fatigue. To help practices cope with increasing burdens, interventions must directly benefit healthcare professionals without overtaxing an already overstretched workforce.

*Creating a Primary Care Workforce: Strategies for Leaders, Clinicians, and Nurses* Journal of Clinical Psychology in Medical Settings, June 2018

Many primary care clinics struggle with rapid implementation and systematic expansion of primary care behavioral health (PCBH) services. Often, an uneven course of program development is due to lack of attention to preparing clinic leadership, addressing operational factors, and training primary care providers (PCPs) and nurses. This article offers competency tools for clinic leaders, PCPs, and nurses to use in assessing their status and setting change targets. These tools were developed by researchers working to disseminate evidence-based interventions in primary care clinics that included fully integrated behavioral health consultants and were then used by early adaptors of the PCBH model. By deploying these strategies, both practicing and teaching clinics will take a big step forward in developing the primary care workforce needed for primary care teams, where the behavioral health needs of a patient of any age can be addressed at the time of need.

*Integrating a nationally scaled workforce of community health workers in primary care: a modelling study* Journal of the Royal Society of Medicine, December 2018
OBJECTIVE To model cost and benefit of a national community health worker workforce. CONCLUSION A scaled community health worker workforce integrated into primary care may be a valuable policy alternative. Pilot studies are required to establish feasibility and impact in NHS primary care.

Factors associated with less-than-full-time working in medical practice: results of surveys of five cohorts of UK doctors, 10 years after graduation Human Resources for Health, October 2016

BACKGROUND The greater participation of women in medicine in recent years, and recent trends showing that doctors of both sexes work fewer hours than in the past, present challenges for medical workforce planning. In this study, we provide a detailed analysis of the characteristics of doctors who choose to work less-than-full-time (LTFT). We aimed to determine the influence of these characteristics on the probability of working LTFT. CONCLUSIONS Family circumstances (children and partner status) affect the working patterns of women and men differently, but both sexes respond similarly to the constraints of their clinical specialty and seniority. Thus, although women doctors comprise the bulk of LTFT workers, gender is just one of several determinants of doctors' working patterns, and wanting to work LTFT is evidently not solely an issue for working mothers.

Primary Care Teams and Pharmacist Staffing Ratios: Is There a Magic Number? Annals of Pharmacotherapy, March 2018

Primary care physician (PCP) shortages are predicted for 2025, and many workforce models have recommended the expanded integration of nurse practitioners and physician assistants. However, there has been little consideration of incorporating clinical pharmacists on primary care teams to address the growing number of patient visits that involve medication optimization and management. This article summarizes various estimates of pharmacist staffing ratios based on number of PCPs, patient panel size, or annual patient encounters. Finally, some steps are offered to address the practice- and policy-based implications of expanding primary care pharmacist activities at the local and state levels.

Staff health and wellbeing

Burnout and Health Care Workforce Turnover Annals of Family Medicine, January 2019

PURPOSE: Levels of burnout among primary care clinicians and staff are alarmingly high, and there is widespread belief that burnout and lack of employee engagement contribute to high turnover of the workforce. Scant research evidence exists to support this assertion, however. CONCLUSION(S): High rates of burnout and turnover in primary care are compelling problems. Our findings provide evidence that burnout contributes to
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Resilience of primary healthcare professionals: a systematic review The British Journal of General Practice, June 2016
AIM To examine definitions and measures of resilience, identify characteristics and components, and synthesise current evidence about resilience in primary healthcare professionals. CONCLUSION Health professional resilience is multifaceted, combining discrete personal traits alongside personal, social, and workplace features. A measure for health professional resilience should be developed and validated that may be used in future quantitative research to measure the effect of an intervention to promote it.

Predictors and Outcomes of Burnout in Primary Care Physicians Journal of Primary Care and Community Health, January 2016
OBJECTIVE To assess relationships between primary care work conditions, physician burnout, quality of care, and medical errors. CONCLUSIONS Burnout is highly associated with adverse work conditions and a greater intention to leave the practice, but not with adverse patient outcomes. Care quality thus appears to be preserved at great personal cost to primary care physicians. Efforts focused on workplace redesign and physician self-care are warranted to sustain the primary care workforce.

Workforce
Surviving or thriving in the primary health care research workforce: the Australian experience Australian Journal of Primary Health, May 2017
Athens login required
Primary healthcare research strives for high-quality, priority-driven research to inform policy and practice. This relies on a robust and sustainable workforce to tackle complex problems faced in primary health care locally and globally. The current study investigated characteristics, experiences and career paths of the Australian primary healthcare research workforce. Thirty-seven former Research Higher Degree students from University Departments of General Practice and Rural Health completed a survey. Number of provisions for researchers and career path clarity were associated with job satisfaction. Motivators to stay in research included job satisfaction, research in role descriptions, and identification of problems requiring change. Barriers related to funding, time, and other work roles taking priority were identified. Comparisons were made between

HEE Knowledge Management Team, updated April 2019

turnover among primary care clinicians, but not among staff. Although reducing clinician burnout may help to decrease rates of turnover, health care organizations and policymakers concerned about employee turnover in primary care need to understand the multifactorial causes of turnover to develop effective retention strategies for clinicians and staff.
participants self-identifying as working in primary healthcare research (‘stayers’; n=22) and those no longer part of this workforce (‘leavers’; n=15). Leavers were more likely to be in permanent full-time work whereas stayers had experienced more career progression and mentoring. This study raises challenges faced by primary healthcare researchers and will inform strategies for supporting the sustainability of this workforce.

The potential impact of Brexit and immigration policies on the GP workforce in England: a cross-sectional observational study of GP qualification region and the characteristics of the areas and population they served in September 2016 BMC Medicine, November 2017

BACKGROUND The UK is dependent on international doctors, with a greater proportion of non-UK qualified doctors working in its universal health care system than in any other European country, except Ireland and Norway. The terms of the UK exit from the European Union can reduce the ability of European Economic Area (EEA) qualified doctors to work in the UK, while new visa requirements will significantly restrict the influx of non-EEA doctors. We aimed to explore the implications of policy restrictions on immigration, by regionally and spatially describing the characteristics of general practitioners (GPs) by region of medical qualification and the characteristics of the populations they serve.

CONCLUSIONS A large percentage of the UK general practice workforce consists of non-UK qualified GPs who work longer hours, are older and serve a larger number of patients in more deprived areas. Following Brexit, difficulties in replacing this valuable workforce will primarily threaten the care delivery in deprived areas.

General practice nurse workforce review: Findings from York Practice Nursing, June 2018

Polly Smith and Lyeanda Berry discuss the findings of a workplace review designed to investigate the diversity of the practice nurse workforce in a cohort of GP surgeries in York, including roles, responsibilities, skills, education and competencies of staff. As part of a collaborative initiative between an NHS foundation Trust and a GP federation, a project was developed to review and understand the diversity of the practice nurse workforce in a cohort of GP surgeries in York, including roles, responsibilities, skills, education and competencies of staff. The workforce review highlighted that GP practices have a rich wealth of knowledge and experience in their nursing workforce. In order to develop and future-proof the service, it is important for practices to work on role development, maximising the non-registered workforce and the recruitment and retention of staff.
Training, education, upskilling and competencies

Models of paediatric learning for UK primary care clinicians: An unmet need Health Education Journal, April 2019

Objectives: Despite a long-standing declaration of educational need in the area of paediatrics in primary care, there is little in the way of strategy for delivering high-quality learning relevant to the specific needs of the primary care team. This article seeks to explore various models for delivering primary care centred paediatric education to inform discussion about how to meet this need. Conclusion(s): The lack of adequate paediatric education for those working in primary care poses a risk which should not be ignored. In the absence of a coherent strategy in the United Kingdom to identify and meet the learning needs of practicing primary care clinicians, one possible solution is for health regions to develop bespoke initiatives based on an understanding of the local workforce, their learning needs and the local resources available. We explore the various modalities through which this can be achieved and share the lessons learned from the development of a multifaceted programme of paediatric learning for primary care clinicians.

Developing a course for primary care healthcare assistants in recognising and responding to deteriorating patients RCNI Primary Health Care, March 2019

The acuity of patients being seen and treated in primary care is changing. This article substantiates the gap in current practice and shows the effect on primary care healthcare assistants’ (HCAs) confidence of providing a course that covers the knowledge and skills needed to recognise and respond to a deteriorating patient. It discusses the changing acuity of patients being seen and treated in primary care and shows how a course initially developed for hospital HCAs has been adapted for primary care. The primary care staff course bedside emergency assessment course for healthcare (BEACH) helps HCAs to recognise and take specific action to ensure that safe and competent care is maintained through early recognition, supported decision-making and prompt escalation of deteriorating patients.

Exploring the training and scope of practice of GPs in England, Germany and Spain Gaceta Sanitaria, March 2019

OBJECTIVE: To explore general practitioner (GP) training, continuing professional development, scope of practice, ethical issues and challenges in the working environment in three European countries. CONCLUSION(S): Primary health care variations have strong historical roots, derived from the different national experiences and the range of clinical services delivered by GPs. There is a need for an accessible source of information for GPs themselves and those responsible for safety and quality standards of the healthcare workforce.
This paper maps out the current situation before Brexit is being implemented in the UK which could see many of the current EU arrangements and legislation to assure professional mobility between the UK and the rest of Europe dismantled.

**Skill mix in Swiss primary care group practices - a nationwide online survey** BMC Family Practice, March 2019

**BACKGROUND:** Increasing chronic conditions and multimorbidity is placing growing service pressures on health care, especially primary care services. This comes at a time when GP workforce shortages are starting to be felt across Switzerland, placing a threat on the sustainability of good access to primary care. By establishing multiprofessional teams in primary care, service capacity is increased and the pressures on the GP workforce can be alleviated. The roles of non-medical health professions in primary care are not established so far in Switzerland and the personnel composition of primary care group practices is not known. Therefore this study aims to provide insights into the current composition, educational background and autonomy of the these new professional roles in primary care.

**CONCLUSION(S):** The results from this study demonstrate that while nearly 50% of groups practices have established non-physician professionals, only 25% of practices integrate these professionals with advanced roles. Compared with other countries, there would appear to be significant scope to extent and broaden the uptake of non-physician professionals in primary care in Switzerland. Clear policy direction along with supporting regulation and financing arrangements are required.

**Learning from the transfer of a fellowship programme to support primary care workforce needs in the UK: A qualitative study** BMJ Open, January 2019

Objectives Service redesign, including workforce development, is being championed by UK health service policy. It is allowing new opportunities to enhance the roles of staff and encourage multiprofessional portfolio working. New models of working are emerging, but there has been little research into how innovative programmes are transferred to and taken up by different areas. This study investigates the transferability of a 1-year post-Certification of Completion of Training fellowship in urgent and acute care from a pilot in the West Midlands region of England to London and the South East. The evaluation demonstrates a model of training that is adaptable and transferable between National Health Service regions, taking account of changing national and regional circumstances, and has the potential to be rolled out widely.

**Filling the gap - the implementation of a graduate development programme in the primary care musculoskeletal setting** Physiotherapy, January 2019
Purpose: There is a well-documented shortage of Physiotherapists in the UK, creating difficulties in recruitment at a time of growing demand in Primary Care. Newly qualified Physiotherapists often report finding this setting and the musculoskeletal field daunting due to a perception of specialism and lack of support. These challenges presented an opportunity to create a development programme to both aid recruitment and support graduates within the field of Primary Care MSK.

Conclusion(s): This project has shown that following investment in the development of a programme specific to the workforce and service needs, graduates have been successfully introduced to the Primary Care MSK setting. Those completing the programme felt supported, valued and developed key clinical and reasoning skills. The process is ongoing with regular supervision and staff all progressing onto a further internal development programme to continue to upskill their MSK reasoning and practice. Implications: This project has highlighted a need to be innovative in methods of recruitment.

Consequently, engagement throughout the team was driven with staff supporting others, supervising clinical performance and demonstrating strong values. With planning and consideration to the specifics of services, this model could be replicated. Moving forwards, we are planning our second intake of recruits and have taken feedback on board to optimise the content.

Primary care workforce development in Europe: An overview of health system responses and stakeholder views Health Policy, October 2018

Better primary care has become a key strategy for reforming health systems to respond effectively to increases in non-communicable diseases and changing population needs, yet the primary care workforce has received very little attention. This article aligns primary care policy and workforce development in European countries. The aim is to provide a comparative overview of the governance of workforce innovation and the views of the main stakeholders. Cross-country comparisons and an explorative case study design are applied. We combine material from different European projects to analyse health system responses to changing primary care workforce needs, transformations in the general practitioner workforce and patient views on workforce changes. The results reveal a lack of alignment between primary care reform policies and workforce policies and high variation in the governance of primary care workforce innovation. Transformations in the general practitioner workforce only partly follow changing population needs; countries vary considerably in supporting and achieving the goals of integration and community orientation. Yet patients who have experienced task shifting in their care express overall positive views on new models. In conclusion, synthesising available evidence from different projects contributes new knowledge on policy levers and reveals an urgent need for health system leadership in
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developing an integrated people-centred primary care workforce.

*Nursing competency standards in primary health care: an integrative review* Journal of Clinical Nursing, May 2016

**AIMS AND OBJECTIVES** This paper reports an integrative review of the literature on nursing competency standards for nurses working in primary health care and, in particular, general practice. **CONCLUSION** Given the potential value of competency standards, further work is required to develop and test robust standards that can communicate the skills and knowledge required of nurses working in primary health care settings to policy makers, employers, other health professionals and consumers.

*Impact of the primary care curriculum and its teaching formats on medical students' perception of primary care: a cross-sectional study* BMC Family Practice, September 2016

**BACKGROUND** Switzerland is facing an impending primary care workforce crisis since almost half of all primary care physicians are expected to retire in the next decade. Only a minority of medical students choose a primary care specialty, further deepening the workforce shortage. It is therefore essential to identify ways to promote the choice of a primary care career. The aim of the present study was to explore students' views about the undergraduate primary care teaching curriculum and different teaching formats, and to evaluate the possible impact of these views on students' perceptions of primary care. **CONCLUSIONS** The primary care curriculum at Lausanne and Geneva Universities positively influences students' perceptions of this discipline. However, there are shortcomings in both the structure and the content of both the primary care and hidden curriculum that may contribute to perpetuating a negative image of this specialization.

*Location, Location, Location: Where We Teach Primary Care Makes All the Difference* Journal of General internal Medicine, April 2017

Creating a new model to train a high-quality primary care workforce is of great interest to American health care stakeholders. There is consensus that effective educational approaches need to be combined with a rewarding work environment, emphasize a good work/life balance, and a focus on achieving meaningful outcomes that center on patients and the public. Still, significant barriers limit the numbers of clinicians interested in pursuing careers in primary care, including low earning potential, heavy medical school debt, lack of respect from physician colleagues, and enormous burdens of record keeping. To enlarge and energize the pool of primary care trainees, we look especially at changes that focus on institutions and the practice environment. Students and residents need training environments where primary care clinicians and interdisciplinary teams play a crucially important role in patient care. For a variety of reasons,
many academic medical centers cannot easily meet these standards. The authors propose that a major part of primary care education and training be re-located to settings in high-performing health systems built on comprehensive integrated care models where primary care clinicians play a principle role in leadership and care delivery.

Core competencies in sexual and reproductive health for the interprofessional primary care team Contraception, May 2016

OBJECTIVE A primary care workforce that is well prepared to provide high-quality sexual and reproductive health (SRH) care has the potential to enhance access to care and reduce health disparities. This project aimed to identify core competencies to guide SRH training across the primary care professions. CONCLUSION The 33 core competencies encompass professional ethics and reproductive justice, collaboration, SRH services and conditions affecting SRH. These core competencies will be disseminated and adapted to each profession’s scope of practice to inform required curricula.

Factors associated with junior doctors’ decisions to apply for general practice training programmes in the UK: secondary analysis of data from the UKMED project BMC Medicine, December 2017

BACKGROUND The UK, like many high-income countries, is experiencing a worsening shortfall of general practitioners (GPs) alongside an increasing demand for their services. At the same time, factors influencing junior doctors’ decisions to apply for GP training are only partially understood and research in this area has been hampered by the difficulties in connecting the datasets that map the journey from student to qualified GP. The UK Medical Education Database (UKMED) has been established to ameliorate this problem by linking institutional data across the spectrum of medical education from school to specialty training. Our study aimed to use UKMED to investigate which demographic and educational factors are associated with junior doctors’ decisions to apply for GP training. CONCLUSIONS Our findings suggest that the supply and demand imbalance in UK primary care might be improved by (1) efforts to attract greater numbers of female, non-white and UK secondary-educated students into medical schools, and (2) targeting resources at medical and foundation schools that deliver doctors likely to fill significant gaps in the workforce. Further research is required to better understand inter-school differences and to develop strategies to improve recruitment of GP trainees.

The development of professional practice standards for Australian general practice nurses Journal of Advanced Nursing, August 2017

AIMS: The aim of this study was to explore the current role of general practice nurses and the scope of nursing practice to inform the development of national
professional practice standards for Australian general practice nurses. CONCLUSION: The development of national professional practice standards for nurses working in Australian general practice will support ongoing workforce development. These Standards are also an important means of articulating the role and scope of the nurses' practice for both consumers and other health professionals, as well as being a guide for curriculum development and measurement of performance.

Technology

*Artificial Intelligence and the Future of Primary Care: Exploratory Qualitative Study of UK General Practitioners’ Views* Journal of Medical Internet Research, March 2019

OBJECTIVE(S): This study aimed to explore general practitioners' (GPs') opinions about the potential impact of future technology on key tasks in primary care.

CONCLUSION(S): This study presents timely information on physicians' views about the scope of artificial intelligence (AI) in primary care. Overwhelmingly, GPs considered the potential of AI to be limited. These views differ from the predictions of biomedical informaticians. More extensive, stand-alone qualitative work would provide a more in-depth understanding of GPs' views.

Competency Frameworks

*Care Navigation: a competency framework* Health Education England, n.d

The purpose of this document is to describe a core, common set of competencies for care navigation. These core competencies are brought together in a tiered competency framework, recognising three successive levels; essential, enhanced and expert. This will help provide a coherent benchmark or set of standards for care navigation, to help ensure relevant staff receive the necessary education, training and support to work effectively. This framework may be used by employers, education providers and individuals to inform education and training needs. It will also help lay the foundations for a career pathway framework for non-clinical staff, within primary and secondary care sectors. This is important to secure a sustainable current and future workforce, offering opportunities for development.

*Competencies: Travel health nursing – career and competence development* Royal College of Nursing, May 2018

Travel health is an expanding specialist field of practice which is becoming more challenging. In the UK, travel health services are mainly delivered by nurses, mostly in a primary care setting. Pharmacists are increasingly
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providing advice for travellers. There is no “one size fits all”, travellers include people of all ages and ethnic background going abroad for a variety of reasons. Their needs are increasingly complex.

An integrated career and competency framework for pharmacists in diabetes UKCPA (Clinical Pharmacy Association) and endorsed by Diabetes UK, May 2018

To deliver care successfully, pharmacists need to be clear about what competencies are required to deliver high-quality diabetes care in patient-facing role and demonstrate those competencies. Furthermore, experienced pharmacist should be able to assess need and be innovative, and to evaluate and demonstrate they achieve desired health outcomes. This framework supports the commissioning of appropriate levels of pharmacists to deliver diabetes services and provides a clear definition of the pharmacist role – and their expected competencies – within diabetes care.

General Practice nursing standards: voluntary standards for education and practice Queen’s Nursing Institute and Queen’s Nursing Institute Scotland, 2017

These standards are focuses on senior general practice nurses and have been designed to reflect the requirements of this role, working in new models of care and reflect the rapid changes in the primary care environment.

A competency framework for all prescribers Royal Pharmaceutical Society, July 2016

To support all prescribers to prescribe effectively a single prescribing competency framework was published by the National Prescribing Centre/National Institute for Health and Care Excellence (NICE) in 2012. Based on earlier profession specific prescribing competency frameworks the framework was developed because it became clear that a common set of competencies should underpin prescribing regardless of professional background. The 2012 framework is now in wide use across the UK and was due for review in 2014. NICE and Health Education England approached the Royal Pharmaceutical Society (RPS) to manage the update of the framework on behalf of all the prescribing professions in the UK.

General Practice Advanced Nurse Practitioners Competencies Royal College of General Practitioners, November 2015

This competency framework aims to provide guidance for educators, GP employers and aspiring Advanced Nurse Practitioners (ANPs). Many of the clinical examples link directly to the GP curriculum. Nurses training as an ANP may do this alongside GP trainees, as many of the clinical skills required are the same.
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