Evidence Brief: Workforce Planning

Contents

Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

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- Complete Evidence Brief list – link for Workforce, Training and Education staff
- Complete Evidence Brief list – link for External staff

Workforce Planning and the NHS

The NHS employs around 1.4 million people and is one of the largest employers globally.[1] The House of Commons Library produced a briefing on the NHS workforce in England in July 2023 considering workforce policy, planning, turnover and vacancy rates as well as trends in domestic and international recruitment and factors affecting recruitment and retention.[2]

In June 2023 the NHS Long Term Workforce Plan was published. It is the first comprehensive workforce plan for the NHS. The Plan sets out the strategic direction to address current workforce challenges through three priority areas:

- Train (significantly increasing education and training, apprenticeships, and alternative routes into roles)
- Retain (ensure we keep more of the staff we have, boosting flexibility and improving culture and leadership)
- Reform (improving productivity by working and training in different ways)[3]

In their explainer of the plan the King's Fund offer a definition for workforce planning and examine why a plan is necessary.

"What is workforce planning?

Successful workforce planning for the NHS ensures that it has the right number of staff, with the right skills and competencies, in the right place, at the right time to deliver services that provide the best possible patient care and meet demand, within an affordable budget.

Why is workforce planning important for the NHS?

A range of factors have an impact on the demand and supply of suitably skilled and qualified health care staff. A long-term national approach to NHS workforce planning is important. In addition to the factors affecting the demand for health care, it takes a significant amount of time to train health care professionals, people's expectations of the workplace can shift over time, and competition in the labour market will evolve over time. A workforce plan will ensure that actions to tackle these factors in the short, medium and long term can be assessed against the current and likely future need for staff."[4]

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[1] https://www.kingsfund.org.uk/projects/nhs-in-a-nutshell/nhs-workforce
[2] https://commonslibrary.parliament.uk/research-briefings/cbp-9731/
[3] https://www.england.nhs.uk/publication/nhs-long-term-workforce-plan/

[4] https://www.kingsfund.org.uk/publications/nhs-long-term-workforce-plan-explained

Guidance

Workforce planning and resource management
Source: NHS England
Effective workforce planning ensures appropriate levels of staff are available to deliver safe, high quality care to patients and service users. Creating an effective workforce requires an evidence-based workforce plan, integrated with finance, activity and performance plans. This must directly involve matrons and managers of the service. Matrons should use their organisation's workforce planning and resource management systems and processes to support their wards, departments and services: for example, by helping staff implement policies and procedures on sickness, leave, flexible working and other human resources matters.

Factsheet: Workforce planning
Source: CIPD
Publication date: 17th July 2023
Workforce planning is a core business process which aligns changing organisation needs with people strategy. It can be the most effective activity an organisation can engage in. It doesn't need to be complicated and can be adjusted to suit the size and maturity of any organisation. It can provide market and industry intelligence to help organisations focus on a range of challenges and issues, and prepare for initiatives to support longer term business goals.

Health and Social Care Act 2008 (Regulated Activities) Regulations 2014: Regulation 18
Source: Care Quality Commission
Publication date: Page last updated 11th August 2023
The intention of this regulation is to make sure that providers deploy enough suitably qualified, competent and experienced staff to enable them to meet all other regulatory requirements described in this part of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014. To meet the regulation, providers must provide sufficient numbers of suitably qualified, competent, skilled and experienced staff to meet the needs of the people using the service at all times and the other regulatory requirements set out in this part of the above regulations. Staff must receive the support, training, professional development, supervision and appraisals that are necessary for them to carry out their role and responsibilities. They should be supported to obtain further qualifications and provide evidence, where required, to the appropriate regulator to show that they meet the professional standards needed to continue to practise.

Integrated workforce thinking across systems: practical solutions to support integrated care systems (ICSs)
Source: NHS Employers; Skills for Care and Local Government Association
Publication date: December 2022
This guide provides tips and insight to help system leaders consider what is needed to plan for and achieve a successfully integrated workforce. It is aimed at ICS workforce leads, chief people officers, directors of adult social services (DASS), chief executives, human resource (HR) directors, elected members including adult social care (ASC) portfolio holders and chairs of health and wellbeing boards, and those who are responsible for integrated workforce thinking across health and social care.

Doing right when you are wrong: perspectives on workforce planning in the NHS in uncertain times
Source: Nuffield Trust
Publication date: 13th June 2022
The health service's most important asset is its staff. Ahead of a promised national workforce strategy for the NHS, Billy Palmer takes a closer look at workforce planning in the health service over the years, describes the challenges involved in getting it

right, and outlines what a successful workforce plan should cover.

Recruitment and workforce supply
Source: NHS Employers
Explore our case studies, guidance, blogs, infographics, and toolkits across a range of topics to support your NHS recruitment and workforce supply.

Understanding safe caseloads in the District Nursing Service
Source: The Queen's Nursing Institute
Publication date: September 2016
The District Nursing Service provides nursing care and support for patients, families and carers in homes and communities in every part of the UK. District Nursing teams comprise the District Nurse team leader, registered nurses and health care support workers, and may include allied health professionals and social care workers. District Nursing services often act like a 'sponge', absorbing additional workload in an environment without the physical limits of a defined number of beds. Modelling demand is important not only for operating current services, but crucially to plan services for the future, taking elements into account such as population health, demographics and the opportunity for remote monitoring and supported self-care. This report aims to demonstrate the complexity of creating, maintaining and predicting caseloads within the District Nursing service that are safe for both patients and staff. By describing the elements that should be taken into consideration when planning safe caseloads, the Queen's Nursing Institute (QNI) intends to contribute to the current wider dialogue around workforce planning and deployment of nursing teams in the community setting.

Models, Tools, and Policies

Approaches and Components of Health Workforce Planning Models: A Systematic Review
Author: Bosak, Somaieh, Yazdani, Shahram and Ayati, Mohammad Hossein
Publication Date: 2023
Publication Details: Iranian journal of medical sciences, 48, (4) pp.358-369. , Iran:
Abstract: Background: To date, there is still no uniformity in forecasting models for health workforce planning (HWFP). Different countries use various HWFP models, some of which are context-specific. The objective of this systematic review is to determine approaches and components of HWFP models., Methods: A systematic review of studies published in English and Persian between 2004 and 2021 was performed by searching PubMed Central, MEDLINE, Web of Science, Scopus, Eric, and Elmnet databases. Articles that assessed HWFP models, focused on health service delivery, used input-output models, and a clear formulation process were included. Articles that scored >=20 points on the "strengthening the reporting of observational studies in epidemiology" checklist were considered of acceptable quality for inclusion., Results: Twenty articles were included for qualitative synthesis based on the inclusion and exclusion criteria. Most studies used the mixed method approach "supply and demand", whereas target- and needs-based approaches were used less frequently. The number of components used to estimate supply, demand, needs, and targets were 42, 32, 11, and 6, respectively. In addition, several unique factors used in the various HWFP models were identified., Conclusion: Different approaches are used in HWFP models, which is indicative of the lack of consensus on this topic. High diversity in the identified factors is related to the approach used and the context in which the model is applied. Copyright: © Iranian Journal of Medical Sciences.

Managing uncertainty in forecasting health workforce demand using the Robust Workforce Planning Framework: the example of midwives in Belgium
Author: Benahmed, Nadia, Lefevre, Melanie and Stordeur, Sabine
Publication Date: 2023
Publication Details: Human resources for health, 21, (1) pp.75. , England:

Abstract: BACKGROUND: In Belgium, the Planning Commission for Medical Supply is responsible for monitoring human resources for health (HRH) and ultimately proposing workforce quotas. It is supported by the Planning Unit for the Supply of the Health Professions. This Unit quantifies and forecasts the workforce in the healthcare professions on the basis of a stock and flow model, based on trends observed in the past. In 2019, the Planning Unit asked the KCE (Belgian Health Care Knowledge Centre) to develop additional forecasting scenarios for the midwifery workforce, to complement the standard historical trend approach. The aim of this paper is to present the development of such forecasting scenarios., METHODS: The Robust Workforce Planning Framework, developed by the Centre for Workforce Intelligence in the UK was used to develop alternative midwifery workforce scenarios. The framework consists of four steps (Horizon scanning, Scenario generation, Workforce modelling, and Policy analysis), the first two of which were undertaken by KCE, using two online surveys and five workshops with stakeholders., RESULTS: Three alternative scenarios are proposed. The first scenario (close to the current situation) envisages pregnancy and maternity care centred on gynaecologists working either in a hospital or in private practice. The second scenario describes an organisation of midwife-led care in hospitals. In the third scenario, care is primarily organised by primary care practitioners (midwives and general practitioners) in outpatient settings., CONCLUSIONS: The Robust Workforce Planning Framework provides an opportunity to adjust the modelling of the health workforce and inform decision-makers about the impact of their future decisions on the health workforce.

Strategic workforce planning in health and social care - an international perspective: A scoping review
Author: Sutton, C., Prowse, J., McVey, L., Elshehaly, M., Neagu, D., Montague, J., Alvarado, N., Tissiman, C., O'Connell, K., Eyers, E., Faisal, M. and Randell, R.
Publication Date: 2023
Publication Details: Health Policy, 132, pp.104827. , Ireland: Elsevier Ireland Ltd.

Abstract: Effective strategic workforce planning for integrated and co-ordinated health and social care is essential if future services are to be resourced such that skill mix, clinical practice and productivity meet population health and social care needs in timely, safe and accessible ways globally. This review presents international literature to illustrate how strategic workforce planning in health and social care has been undertaken around the world with examples of planning frameworks, models and modelling approaches. The databases Business Source Premier, CINAHL, Embase, Health Management Information Consortium, Medline and Scopus were searched for full texts, from 2005 to 2022, detailing empirical research, models or methodologies to explain how strategic workforce planning (with at least a one-year horizon) in health and/or social care has been undertaken, yielding ultimately 101 included references. The supply/demand of a differentiated medical workforce was discussed in 25 references. Nursing and midwifery were characterised as undifferentiated labour, requiring urgent growth to meet demand. Unregistered workers were poorly represented as was the social care workforce. One reference considered planning for health and social care workers. Workforce modelling was illustrated in 66 references with predilection for quantifiable projections.

Increasingly needs-based approaches were called for to better consider demography and epidemiological impacts. This review's findings advocate for whole-system needs-based approaches that consider the ecology of a co-produced health and social care workforce. Copyright © 2023

What can the GDC's monthly registrant reports offer strategic dental nurse workforce planning? Abstract only*
Author(s): Debbie Reed
Source: British Dental Journal 235 402-403
Publication date: 2023

- In July 2023, the number of dental nurses registered with the GDC continues to rise, with an increasing shift back toward the previous 2021 peak.
- The NHS are set to increase the commissioned training of dental therapists and other clinicians but, at present, are not intending to increase the commissioned training of dental nurses by a corresponding number.
- The 'crisis' within the dental workforce has the potential to be mitigated through comprehensive and strategic workforce planning.

Opinion: What can the NHS learn from other countries on workforce planning?
Author(s): Sarah Reed
Source: BMJ 379
Publication date: 2022
In his Autumn Statement, Jeremy Hunt, the chancellor, reiterated the government's commitment to delivering long term healthcare workforce projections over the next five, 10 and 15 years. This is a move long called for by system leaders,[1] and one step towards (hopefully) establishing a sustainable workforce plan for England.

Six Steps Methodology to Integrated Workforce Planning
Source: Skills for Care
Our Six Steps Methodology to Integrated Workforce Planning is a practical approach to planning that ensures you have a workforce of the right size with the right skills and competences. The Methodology identifies those elements that should be in any workforce plan, taking into account the current and future demand for services, the local demographic situation and the impact on other services, whilst helping you work to the budget you can afford.

The Six Steps are:-

- Step 1: Defining the plan
- Step 2: Mapping service change
- Step 3: Defining the required workforce
- Step 4: Understanding workforce availability
- Step 5: Planning to deliver the required workforce
- Step 6: Implement, monitoring and refresh.

Securing a sustainable and fit-for-purpose UK health and care workforce Full text available with NHS OpenAthens account*
Item Type: Journal Article
Authors: Anderson, Michael;O'Neill, Ciaran;Macleod Clark, Jill;Street, Andrew;Woods, Michael;Johnston-Webber, Charlotte;Charlesworth, Anita;Whyte, Moira;Foster, Margaret;Majeed, Azeem;Pitchforth, Emma;Mossialos, Elias;Asaria, Miqdad and McGuire, Alistair
Publication Date: 2021
Journal: Lancet 397(10288), pp. 1992-2011
Abstract: Approximately 13% of the total UK workforce is employed in the health and care sector. Despite substantial workforce planning efforts, the effectiveness of this planning has been criticised. Education, training, and workforce plans have typically considered each health-care profession in isolation and

have not adequately responded to changing health and care needs. The results are persistent vacancies, poor morale, and low retention. Areas of particular concern highlighted in this Health Policy paper include primary care, mental health, nursing, clinical and non-clinical support, and social care. Responses to workforce shortfalls have included a high reliance on foreign and temporary staff, small-scale changes in skill mix, and enhanced recruitment drives. Impending challenges for the UK health and care workforce include growing multimorbidity, an increasing shortfall in the supply of unpaid carers, and the relative decline of the attractiveness of the National Health Service (NHS) as an employer internationally. We argue that to secure a sustainable and fit-for-purpose health and care workforce, integrated workforce approaches need to be developed alongside reforms to education and training that reflect changes in roles and skill mix, as well as the trend towards multidisciplinary working. Enhancing career development opportunities, promoting staff wellbeing, and tackling discrimination in the NHS are all needed to improve recruitment, retention, and morale of staff. An urgent priority is to offer sufficient aftercare and support to staff who have been exposed to high-risk situations and traumatic experiences during the COVID-19 pandemic. In response to growing calls to recognise and reward health and care staff, growth in pay must at least keep pace with projected rises in average earnings, which in turn will require linking future NHS funding allocations to rises in pay. Through illustrative projections, we show that, to sustain annual growth in the workforce at approximately 2·4%, increases in NHS expenditure of 4% annually in real terms will be required. Above all, a radical long-term strategic vision is needed to ensure that the future NHS workforce is fit for purpose.

[Co-developing an integrated primary care workforce planning approach at a regional level: overarching framework and guiding principles](#)

Author(s): Bourgeault et al.
Source: Human Resources for Health 19(1)
Publication date: 2021
Health workforce planning provides a crucial evidence-base for decision-makers in the development and deployment of a fit-for-purpose workforce. Although less common, health workforce planning at the regional level helps to ground planning in the unique realities of local health systems. This commentary provides an overview of the process by which an integrated primary healthcare workforce planning toolkit was co-developed by university-based researchers with the Canadian Health Workforce Network and partners within a major urban regional health authority. The co-development process was guided by a conceptual framework emphasizing the key principles of sound health workforce planning: that it (1) be informed by evidence both quantitative and qualitative in nature; (2) be driven by population health needs and achieve population, worker and system outcomes; (3) recognize that deployment is geographically based and interprofessionally bound within a complex adaptive system; and (4) be embedded in a cyclical process of aligning evolving population health needs and workforce capacity.Copyright © 2021. The Author(s).

[An integrated primary care workforce planning toolkit at regional level (part 1): qualitative tools compiled for decision-makers in Toronto, Canada](#)

Author(s): Chamberland-Rowe et al.
Source: Human Resources for Health 19(1) pp. 85
Publication date: 2021
BACKGROUND: A regional health authority in Toronto, Canada, identified health workforce planning as an essential input to the implementation of their comprehensive Primary Care Strategy. The goal of this project was to develop an evidence-informed toolkit for integrated, multi-professional, needs-based primary care workforce planning for the region. This article presents the

qualitative workforce planning processes included in the toolkit. METHOD(S): To inform the workforce planning process, we undertook a targeted review of the health workforce planning literature and an assessment of existing planning models. We assessed models based on their alignment with the core needs and key challenges of the health authority: multi-professional, population needs-based, accommodating short-term planning horizons and multiple planning scales, and addressing key challenges including population mobility and changing provider practice patterns. We also assessed the strength of evidence surrounding the models' performance and acceptability. RESULT(S): We developed a fit-for-purpose health workforce planning toolkit, integrating elements from existing models and embedding key features that address the region's specific planning needs and objectives. The toolkit outlines qualitative workforce planning processes, including scenario generation tools that provide opportunities for patient and provider engagement. Tools include STEEPLED Analysis, SWOT Analysis, an adaptation of Porter's Five Forces Framework, and Causal Loop Diagrams. These planning processes enable the selection of policy interventions that are robust to uncertainty and that are appropriate and acceptable at the regional level. CONCLUSION(S): The qualitative inputs that inform health workforce planning processes are often overlooked, but they represent an essential part of an evidence-informed toolkit to support integrated, multi-professional, needs-based primary care workforce planning.Copyright © 2021. The Author(s).

Visualising the drivers of an effective health workforce: a detailed, interactive logic model
Author(s): Sonderegger et al.
Source: Human Resources for Health 19(1) pp. 32
Publication date: 2021
BACKGROUND: A strong health workforce is a key building block of a well-functioning health system. To achieve health systems goals, policymakers need information on what works to improve and sustain health workforce performance. Most frameworks on health workforce planning and policymaking are high-level and conceptual, and do not provide a structure for synthesizing the growing body of empirical literature on the effectiveness of strategies to strengthen human resources for health (HRH). Our aim is to create a detailed, interactive logic model to map HRH evidence and inform policy development and decision-making., METHODS: We reviewed existing conceptual frameworks and models on health workforce planning and policymaking. We included frameworks that were: (1) visual, (2) comprehensive (not concentrated on specific outcomes or strategies), and (3) designed to support decision-making. We compared and synthesized the frameworks to develop a detailed logic model and interactive evidence visualization tool., RESULTS: Ten frameworks met our inclusion criteria. The resulting logic model, available at hrhvisualizer.org, allows for visualization of high-level linkages as well as a detailed understanding of the factors that affect health workforce outcomes. HRH data and governance systems interact with the context to affect how human resource policies are formulated and implemented. These policies affect HRH processes and strategies that influence health workforce outcomes and contribute to the overarching health systems goals of clinical quality, responsiveness, efficiency, and coverage. Unlike existing conceptual frameworks, this logic model has been operationalized in a highly visual, interactive platform that can be used to map the research informing policies and illuminating their underlying mechanisms., CONCLUSIONS: The interactive logic model presented in this paper will allow for comprehensive mapping of literature around effective strategies to strengthen HRH. It can aid researchers in communicating with policymakers about the evidence behind policy questions, thus supporting the translation of evidence to policy.

[Datasets to support workforce planning in nursing: a scoping review](#) Abstract only*
Author(s): Weller-Newton et al.
Source: Collegian 28(3) pp. 324-332
Publication date: 2021
Aim: This review sought to identify and describe evidence regarding the value and benefits of datasets to support nursing workforce planning and quality patient care. Design(s): Scoping review. Data sources: The following data bases were searched Ovid EMCARE, MEDLINE, EMBASE, Scopus, Informit, and ProQuest Dissertations. Review methods: The Joanna Briggs Scoping review guidelines informed the structure of this review which entailed a stepped search strategy. 3036 records were screened by title and abstract by two independent reviewers for relevance to the aims of the review, with disputes resolved by a third independent reviewer. Following assessment of 44 full-text documents, 18 were included in the review. Result(s): There is limited evidence on the attributes or efficacy of workforce datasets. This is linked to the multiple variabilities across clinical settings and jurisdictions, such as education and qualifications, the nomenclature of nursing titles, clinical facility/unit classification, and the quantification of patient acuity, among other factors. A comprehensive workforce dataset was not reported in the literature examined here. Conclusion(s): The absence of evidence regarding standardised workforce datasets and their value is impacting on nurse leaders' capacity to proactively plan and develop a viable strategy for sustaining the nursing workforce. Impact: The lack of standardised national workforce datasets and their efficacy results in inadequate, ad hoc or contradictory approaches to workforce planning.
Copyright © 2020 Australian College of Nursing Ltd

[Visualising the drivers of an effective health workforce: a detailed, interactive logic model](#)
Author(s): Sonderegger et al.

Source: Human Resources for Health 19:32
Publication date: 2021
Background: A strong health workforce is a key building block of a well-functioning health system. To achieve health systems goals, policymakers need information on what works to improve and sustain health workforce performance. Most frameworks on health workforce planning and policymaking are high-level and conceptual, and do not provide a structure for synthesizing the growing body of empirical literature on the efectiveness of strategies to strengthen human resources for health (HRH). Our aim is to create a detailed, interactive logic model to map HRH evidence and inform policy development and decision-making. Methods: We reviewed existing conceptual frameworks and models on health workforce planning and policymaking. We included frameworks that were: (1) visual, (2) comprehensive (not concentrated on specifc outcomes or strategies), and (3) designed to support decision-making. We compared and synthesized the frameworks to develop a detailed logic model and interactive evidence visualization tool. Results: Ten frameworks met our inclusion criteria. The resulting logic model, available at hrhvisualizer.org, allows for visualization of high-level linkages as well as a detailed understanding of the factors that afect health workforce outcomes. HRH data and governance systems interact with the context to afect how human resource policies are formulated and implemented. These policies afect HRH processes and strategies that infuence health workforce outcomes and contribute to the overarching health systems goals of clinical quality, responsiveness, efciency, and coverage. Unlike existing conceptual frameworks, this logic model has been operationalized in a highly visual, interactive platform that can be used to map the research informing policies and illuminating their underlying mechanisms. Conclusions: The interactive logic model presented in this paper will allow for comprehensive mapping of literature around efective strategies to strengthen HRH. It can aid researchers in communicating with

policymakers about the evidence behind policy questions, thus supporting the translation of evidence to policy.

Advancing the population needs-based health workforce planning methodology: a simulation tool for country application
Author(s): Asamani et al.
Source: International Journal of Environmental Research and Public Health 18
Publication date: 2021
Although the conceptual underpinnings of needs-based health workforce planning have developed over the last two decades, lingering gaps in empirical models and lack of open access tools have partly constrained its uptake in health workforce planning processes in countries. This paper presents an advanced empirical framework for the need-based approach to health workforce planning with an open-access simulation tool in Microsoft® Excel to facilitate real-life health workforce planning in countries. Two fundamental mathematical models are used to quantify the supply of, and need for, health professionals, respectively. The supply-side model is based on a stock-and-flow process, and the need-side model extents a previously published analytical frameworks using the population health needs-based approach. We integrate the supply and need analyses by comparing them to establish the gaps in both absolute and relative terms, and then explore their cost implications for health workforce policy and strategy. To illustrate its use, the model was used to simulate a real-life example using midwives and obstetricians/gynaecologists in the context of maternal and new-born care in Ghana. Sensitivity analysis showed that if a constant level of health was assumed (as in previous works), the need for health professionals could have been underestimated in the long-term. Towards universal health coverage, the findings reveal a need to adopt the need-based approach for HWF planning and to adjust HWF supply in line with population health needs.

Workforce planning – a needs-based approach Full text available with NHS OpenAthens account*
Author(s): Paul Hellyer
Source: British Dental Journal 230 (158)
Publication date: 2021
Future skill mix requirements need more detailed planning Rapid changes in service provision and advances in technology make planning a future workforce for oral care essential. The current business model of care provision, which puts practices in places of highest patient demand, may not be best placed to maximise health gain for the whole population. Governmental interventions to improve access frequently involve reductions in fees to patients, but do not result in services necessarily being available.

Health workforce planning under conditions of uncertainty: identifying supportive integrated care policies using scenario analysis Abstract only*
Author(s): Rees et al.
Source: Journal of Integrated Care 29(2)
Publication date: October 2020
Purpose: Integrated care presents health workforce planners with significant uncertainty. This results from: (1) these workforces are likely in the future to be different from the present, (2) integrated care's variable definitions and (3) workforce policy and planning is not familiar with addressing such challenges. One means to deal with uncertainty is scenario analysis. In this study we reveal some integration-supportive workforce governance and planning policies that were derived from the application of scenario analysis.
Design/methodology/approach: Through a mixed methods design that applies content analysis, scenario construction and the policy Delphi method, we analysed a set of New Zealand's older persons health sector workforce scenarios. Developed from data gathered from workforce documents and studies, the

scenarios were evaluated by a suitably qualified panel, and derived policy statements were assessed for desirability and feasibility. Findings: One scenario was found to be most favourable, based on its broad focus, inclusion of prevention and references to patient dignity, although funding changes were indicated as necessary for its realisation. The integration-supportive policies are based on promoting network-based care models, patient-centric funding that promotes collaboration and the enhancement of interprofessional education and educator involvement. Originality/value: Scenario analysis for policy production is rare in health workforce planning. We show how it is possible to identify policies to address an integrated care workforce's development using this method. The article provides value for planners and decision-makers by identifying the pros and cons of future situations and offers guidance on how to reduce uncertainty through policy rehearsal and reflection.

[Rethinking workforce planning for integrated care: using scenario analysis to facilitate policy development](#)
Author(s): Rees et al.
Source: BMC Health Services Research 20:429
Publication date: 2020
Background: A goal of health workforce planning is to have the most appropriate workforce available to meet prevailing needs. However, this is a difficult task when considering integrated care, as future workforces may require different numbers, roles and skill mixes than those at present. With this uncertainty and large variations in what constitutes integrated care, current health workforce policy and planning processes are poorly placed to respond. In order to address this issue, we present a scenario-based workforce planning approach. Methods: We propose a novel mixed methods design, incorporating content analysis, scenario methods and scenario analysis through the use of a policy Delphi. The design prescribes that data be gathered from workforce documents and studies that are used to develop

scenarios, which are then assessed by a panel of suitably qualified people. Assessment consists of evaluating scenario desirability, feasibility and validity and includes a process for indicating policy development opportunities. Results: We confirmed our method using data from New Zealand's Older Persons Health sector and its workforce. Three scenarios resulted, one that reflects a normative direction and two alternatives that reflect key sector workforce drivers and trends. One of these, based on alternative assumptions, was found to be more desirable by the policy Delphi panel. The panel also found a number of favourable policy proposals. Conclusions: The method shows that through applying techniques that have been developed to accommodate uncertainty, health workforce planning can benefit when confronting issues associated with integrated care. The method contributes to overcoming significant weaknesses of present health workforce planning approaches by identifying a wider range of plausible futures and thematic kernels for policy development. The use of scenarios provides a means to contemplate future situations and provides opportunities for policy rehearsal and reflection

[Ensuring sustainability for UK Burns Services: Workforce Planning for Burns Consultants](#) Abstract only*
Author(s): Brady et al.
Source: Annals of Plastic Surgery 82(3)
Publication date: March 2019
Introduction: Workforce planning is an essential component of organizing any health service. Centralization of burns services pools expertise, although trainees can struggle to achieve adequate exposure to burns training. We aim to review current staffing levels and predict the future consultant numbers required for UK services to remain staffed with appropriately trained surgeons. Methods: We have compiled a database of all UK burns consultants. Basic demographic data, such as age and sex, were collated. Projected UK population data have been

used to estimate whether the number of patients under the care of the UK burns network will change in the coming years. Access to burns fellowship training has also been factored in.
Results: There are 34 burns facilities in the United Kingdom and 86 burns consultants. On average, these consultants are 13 years from retirement age. 22 will reach this age within the next decade. During this time, the UK population is expected to increase by 10%, translating to approximately another 6 consultant posts. Since there are only 2 UK recognized burns fellowships, many of the required consultants will have to seek training abroad. Conclusions: Workforce planning is essential to avoid a short fall in the number of upcoming burns consultants. Plans must be in place to anticipate additional workload with a 10% population rise. With the current struggles of NHS funding, a comprehensive review of burns workforce planning should be undertaken to ensure that sufficient numbers of trainees are completing appropriate burns-specific training and are ready to fill these posts.

Process and systems: The WRaPT process – a novel and patient-centred approach to workforce planning by a clinically active workforce
Author(s): Kanagaratnam et al.
Source: Future Healthcare Journal
Publication date: February 2019
The concept of supply and demand is well established within the health economy of the UK. However, complex health and social care needs, associated with an ageing population, pose a novel challenge to NHS resources and, in particular, its workforce. Although existing strategies adopt a more linear approach to clinical activity and workforce demands, the Workforce Repository and Planning Tool process draws upon the principles of 'realist' data evaluation to combine empirical evidence, practical experience and clinical theory to offer transformation

strategies for an NHS workforce that is fit for purpose and its patients.

Conference abstract: The development of a workforce planning toolkit for occupational health nursing services in Ireland
Author(s): Carolan et al.
Source: Occup Environ Med 75(Suppl 2)
Publication date: 2018
Introduction At a time when health resourcing costs are contracting, it is vital that services examine the potential to maximise the efficiency of their services and resources. The objective of workforce planning is to develop knowledge and intelligence data on the workforce, to inform decisions at local level and to drive improvements in Occupational Health service outcomes. Methods Organisational Development Approach/Practice Development Approach The workforce planning approach involved the following points - . The main stakeholders were committed to and involved in the planning process with clear lines of responsibility and accountability being defined. . Build from a structured information base on current staffing, and relevant activity for departments. . The development of an overview analysis to identify need for and scope for change. . An agreed unit workforce plan, which included a cycle of review and update. . Support at National Level was a key factor in this project . The Team Project was part of a Future Leaders Programme with the Royal College of Surgeons in Ireland, Institute of Leadership. Result Approved Workforce Planning Toolkit . The toolkit is robust addressing measurement of demand, capacity, capability, key performance indicators, and business planning. . It has been used within the Workplace Health and Wellbeing Unit for OHS, the toolkit is continually reviewed to ensure that it is user friendly to acknowledge differences in work practices and at the same time promote standardisation. Discussion Optimising Healthcare Workers . This toolkit provides a framework for workforce planning within

Occupational Health Nursing . The WHO (2016) predicted a significant shortfall of healthcare workers. . Further work needs to be done in relation to integrated succession planning for Occupational Health Services.

Is innovative workforce planning software the solution to the NHS staffing and cost crisis? An exploration of the locum industry
Author(s): Theodoulou et al.
Source: BMC Health Services Research 18:188
Publication date: 2018
Background: Workforce planning in the British healthcare system (NHS) is associated with significant costs of agency staff employment. The introduction of a novel software (ABG) as a 'people to people economy' (P2PE) platform for temporary staff recruitment offers a potential solution to this problem. Consequently, the focus of this study was twofold – primarily to explore the locum doctor landscape, and secondarily to evaluate the implementation of P2PE in the healthcare industry. Methods: Documentary analysis was conducted alongside thirteen semi structured interviews across five informant groups: two industry experts, two healthcare consultants, an executive director, two speciality managers and six doctors. Results: We found that locum doctors are indispensable to covering workforce shortages, yet existing planning and recruitment practices were found to be inefficient, inconsistent and lacking transparency. Contrarily, mobile-first solutions such as ABG seem to secure higher convenience, better transparency, cost and time efficiency. We also identified factors facilitating the successful diffusion of ABG; these were in line with classically cited characteristics of innovation such as trialability, observability, and scope for local reinvention. Drawing upon the concept of value-based healthcare coupled with the analysis of our findings led to the development of Information Exchange System (IES) model, a comprehensive framework allowing a thorough comparison of recruitment practices in healthcare. Conclusion: IES was used to evaluate ABG and its diffusion against other recruitment methods and ABG was found to outperform its alternatives, thus suggesting its potential to solve the staffing and cost crisis at the chosen hospital.

A comparison of nursing education and workforce planning initiatives in the United States and England
Author(s): White et al.
Source: Policy, Policies & Nursing Practice 18(4)
Publication date: 2018
Health care systems in England and the United States are under similar pressures to provide higher quality, more efficient care in the face of aging populations, increasing care complexity, and rising costs. In 2010 and 2011, major strategic reports were published in the two countries with recommendations for how to strengthen their respective nursing workforces to address these challenges. In England, it was the 2010 report of the Prime Minister's Commission on the Future of Nursing and Midwifery, Front Line Care: The Future of Nursing and Midwifery in England. In the United States, it was the Institute of Medicine's report The Future of Nursing: Leading Change, Advancing Health. The authors of both reports recommended shifting entry level nursing education to the baccalaureate degree and building capacity within their educational systems to prepare nurses as leaders, educators, and researchers. This article will explore how, with contrasting degrees of success, the nursing education systems in the United States and England have responded to these recommendations and examine how different regulatory and funding structures have hindered or enabled these efforts.

What will make a difference? Assessing the impact of policy and non-policy scenarios on estimates of the future GP workforce
Author(s): Laurence and Karnon
Source: Human Resources for Health 15:43

Background: Health workforce planning is based on estimates of future needs for and supply of health care services. Given the pipeline time lag for the training of health professionals, inappropriate workforce planning or policies can lead to extended periods of over- or under-supply of health care providers. Often these policy interventions focus on one determinant of supply and do not incorporate other determinants such as changes in population health which impact the need for services. The aim of this study is to examine the effect of the implementation of various workforce policies on the estimated future requirements of the GP workforce, using South Australia as a case study. This is examined in terms of the impact on the workforce gap (excess or shortage), the cost of these workforce policies, and their role in addressing potential non-policy-related future scenarios. Methods: An integrated simulation model for the general practice workforce in South Australia was developed, which determines the supply and level of services required based on the health of the population over a projection period 2013–2033. The published model is used to assess the effects of various policy and workforce scenarios. For each policy scenario, associated costs were estimated and compared to baseline costs with a 5% discount rate applied. Results: The baseline scenario estimated an excess supply of GPs of 236 full-time equivalent (FTE) in 2013 but this surplus decreased to 28 FTE by 2033. The estimates based on single policy scenarios of role substitution and increased training positions continue the surplus, while a scenario that reduces the number of international medical graduates (IMGs) recruited estimated a move from surplus to shortage by 2033. The best-case outcome where the workforce achieves balance by 2023 and remains balanced to 2033, arose when GP participation rates (a non-policy scenario) were combined with the policy levers of increased GP training positions and reduced IMG recruitment. The cost of each policy varied, with increased role substitution

and reduced IMG recruitment resulting in savings (AUD$752,946,586 and AUD$3,783,291 respectively) when compared to baseline costs. Increasing GP training costs over the projection period would cost the government an additional AUD$12,719,798. Conclusions: Over the next 20 years, South Australia's GP workforce is predicted to remain fairly balanced. However, exogenous changes, such as increased demand for GP services may require policy intervention to address associated workforce shortfalls. The workforce model presented in this paper should be updated at regular intervals to inform the need for policy intervention.

Balancing the health workforce: breaking down overall technical change into factor technical change for labour – an empirical application to the Dutch hospital industry
Author(s): Blank and van Hulst
Source: Human Resources for Health 15:15
Publication date: 2017
Background: Well-trained, well-distributed and productive health workers are crucial for access to high-quality, cost-effective healthcare. Because neither a shortage nor a surplus of health workers is wanted, policymakers use workforce planning models to get information on future labour markets and adjust policies accordingly. A neglected topic of workforce planning models is productivity growth, which has an effect on future demand for labour. However, calculating productivity growth for specific types of input is not as straightforward as it seems. This study shows how to calculate factor technical change (FTC) for specific types of input. Methods: The paper first theoretically derives FTCs from technical change in a consistent manner. FTC differs from a ratio of output and input, in that it deals with the multi-input, multi-output character of the production process in the health sector. Furthermore, it takes into account substitution effects between different inputs. An application of the calculation of FTCs is given for the Dutch hospital industry for the period

2003–2011. A translog cost function is estimated and used to calculate technical change and FTC for individual inputs, especially specific labour inputs. Results: The results show that technical change increased by 2.8% per year in Dutch hospitals during 2003–2011. FTC differs amongst the various inputs. The FTC of nursing personnel increased by 3.2% per year, implying that fewer nurses were needed to let demand meet supply on the labour market. Sensitivity analyses show consistent results for the FTC of nurses. Conclusions: Productivity growth, especially of individual outputs, is a neglected topic in workforce planning models. FTC is a productivity measure that is consistent with technical change and accounts for substitution effects. An application to the Dutch hospital industry shows that the FTC of nursing personnel outpaced technical change during 2003–2011. The optimal input mix changed, resulting in fewer nurses being needed to let demand meet supply on the labour market. Policymakers should consider using more detailed and specific data on the nature of technical change when forecasting the future demand for health workers.

Whole system quality: local benchmarking to improve workforce planning
Author(s): Kelley-Patterson et al.
Source: London Journal of Primary Care 9:2
Publication date: October 2016
As a team of workforce analysts and academics with an interest in workforce planning, we are aware that the data available to support primary care workforce planning are disorganised and overwhelming. This makes it difficult for General Practice to extract meaningful and relevant information. We deliver workforce planning workshops across England. Participants at our workshops regularly express their frustration with the quantity of information they are required to produce and the quality of information they receive from other parts of the system. We are dismayed at what we sense to be growing cynicism with

data generation and information analysis and are interested in stimulating a conversation about what data matter and how primary care teams can extract data that are useful.

Strategic workforce planning for health human resources: a nursing case analysis
Author(s): Baumann et al.
Source: Canadian Journal of Nursing Research 48(3-4)
Publication date: 2016
Background: Health-care organizations provide services in a challenging environment, making the introduction of health human resources initiatives especially critical for safe patient care. Purpose: To demonstrate how one specialty hospital in Ontario, Canada, leveraged an employment policy to stabilize its nursing workforce over a six-year period (2007 to 2012). Methods: An observational cross-sectional study was conducted in which administrative data were analyzed to compare full-time status and retention of new nurses prepolicy and during the policy. The Professionalism and Environmental Factors in the Workplace Questionnaire® was used to compare new nurses hired into the study hospital with new nurses hired in other health-care settings. Results: There was a significant increase in full-time employment and a decrease in part-time employment in the study hospital nursing workforce. On average, 26% of prepolicy new hires left the study hospital within one year of employment compared to 5% of new hires during policy implementation. The hospital nurses scored significantly higher than nurses employed in other health-care settings on 5 out of 13 subscales of professionalism. Conclusions: Decision makers can use these findings to develop comprehensive health human resources guidelines and mechanisms that support strategic workforce planning to sustain and strengthen the health-care system.

Health workforce planning models, tools and processes in five countries: an evidence review
Author(s): Kinsella and Kieresy
Source: Health Research Board (HRB) Ireland
Publication date: 2016
Ireland's health sector currently faces significant challenges in the recruitment and retention of health and social care professionals to meet the ever-growing demand for healthcare from an ageing population. An integrated national response is required to ensure that Ireland has a fit-for-purpose health workforce with the capacity to deliver high-quality patient care. Workforce planning models are required as part of a fit-for-purpose health workforce. This evidence review examines examples from the health workforce planning frameworks of other countries to highlight the systems, tools, and models used to implement health workforce planning policy and strategies. The aim is to understand the functional requirements of a successful workforce planning approach. Five countries were chosen for examination during an initial scoping exercise by the Health Research Board based on their similarity in size to Ireland or their scattered rural population. The countries chosen were Australia, the Netherlands, New Zealand, Scotland, and Wales.

Pre-implementation studies of a workforce planning tool for nurse staffing and human resource management in university hospitals Abstract only*
Author(s): can Oosteveen et al.
Source: Journal of Nursing Management 24(2)
Publication date: March 2016
Aim: To investigate the reliability, validity and feasibility of the RAFAELA workforce planning system (including the Oulu patient classification system - OPCq), before deciding on implementation in Dutch hospitals. Background: The complexity of care, budgetary restraints and demand for high-quality patient care have ignited the need for transparent hospital workforce planning. Methods: Nurses from 12 wards of two university hospitals were trained to test the reliability of the OPCq by investigating the absolute agreement of nursing care intensity (NCI) measurements among nurses. Validity was tested by assessing whether optimal NCI/nurse ratio, as calculated by a regression analysis in RAFAELA, was realistic. System feasibility was investigated through a questionnaire among all nurses involved. Results: Almost 67 000 NCI measurements were performed between December 2013 and June 2014. Agreement using the OPCq varied between 38% and 91%. For only 1 in 12 wards was the optimal NCI area calculated judged as valid. Although the majority of respondents was positive about the applicability and user-friendliness, RAFAELA was not accepted as useful workforce planning system. Conclusion and implications for nursing management: Nurses' performance using the RAFAELA system did not warrant its implementation. Hospital managers should first focus on enlarging the readiness of nurses regarding the implementation of a workforce planning system.

Workforce planning for urgent care services Abstract only*
Author(s): Janet Youd
Source: Emergency Nurse 23(4) pp. 14-19
Publication date: June 2015
Janet Youd offers a user's guide to the Baseline Emergency Staffing Tool for assessing the number and skill mix of nurses needed to care for different groups of patients. Due to major changes in how emergency care is delivered across different communities, one emergency department is no longer like another. Some have separate minor injury provision, some are general departments that cater for all types of patient, while others are designated major trauma centres. These differences in patient profile affect the required numbers and skill mix of nursing establishments so that the nursing workforce in each cannot be predicated on patient numbers alone. This article

describes the development by the RCN Emergency Care Association of an evidence-based staffing tool and how it can be used in practice.

[Health workforce planning in Europe: Creating learning country clusters](#) Abstract only*
Author(s): Ronald Batenburg
Source: Health Policy 119(12)
Publication date: December 2015
In this article, the different dimensions and determinants of health workforce planning (HWF) are investigated to improve context-sensitivity and mutual learning among groups of countries with similar HWF characteristics. A novel approach to scoring countries according to their HFW characteristics and type of planning is introduced using data collected in 2012 by a large European Union project involving 35 European countries (the 'Matrix Study' [8]). HWF planning is measured in terms of three major dimensions: (1) data infrastructure to monitor the capacities and dynamics of health workforces, (2) the institutions involved in defining and implementing labour market regulations, and (3) the availability of models to estimate supply-demand gaps and to forecast imbalances. The result shows that the three dimensions of HWF planning are weakly interrelated, indicating that countries invest in HWF in different ways. Determinant analysis shows that countries with larger health labour markets, National Healthcare Service (NHS), mobility, and strong primary health care score higher on HWF planning dimensions than others. Consequently, the results suggest that clustering countries with similar conditions in terms of HWF planning is a way forward towards mutual and contextual learning.

[Examining pharmacy workforce issues in the United States and the United Kingdom](#)
Author(s): Covvey et al.
Source: American Journal of Pharmaceutical Education 79(2)

Publication date: 2015
Objective: To examine available data and actions surrounding current pharmacy workforce issues in the United States and United Kingdom. Methods: Published pharmacy workforce data from the United States and United Kingdom were gathered from various sources, including PUBMED, Internet search engines, and pharmacy organization websites. Data was collated from additional sources including scientific literature, internal documents, news releases, and policy positions. Results: The number of colleges and schools of pharmacy has expanded by approximately 50% in both the United States and United Kingdom over the previous decade. In the United States, continued demand for the pharmacy workforce has been forecasted, but this need is based on outdated supply figures and assumptions for economic recovery. In the United Kingdom, workforce modeling has predicted a significant future oversupply of pharmacists, and action within the profession has attempted to address the situation through educational planning and regulation. Conclusion: Workforce planning is an essential task for sustaining a healthy profession. Recent workforce planning mechanisms in the United Kingdom may provide guidance for renewed efforts within the profession in the United States.

[Measuring safe staff levels in the community: the 'DominiC' workforce management tool](#) Abstract only*
Author(s): Bowers and Durrant
Source: British Journal of Community Nursing 19(2)
Publication date: 2014
There is significant need to establish and predict what numbers of district nursing staff are needed to provide quality patient care. This is the first in a series of articles sharing the evidence-based and tested solutions being used in clinical practice across the UK to inform caseload and workforce planning. Stockport NHS Foundation Trust's electronic workload management tool 'DominiC' is explored in this article. The tool promotes continuity

of patient care, efficient resource allocation and the benchmarking of care. It predicts future service demands and measures these against the staff resources available. Lessons learned from the process of developing and implementing DominiC are shared to help inform clinicians and managers looking for similar workforce planning solutions.

Opportunities and Challenges

Career intentions of medical students in the UK: a national, cross-sectional study (AIMS study)
Item Type: Journal Article
Authors: Ferreira, Tomas;Collins, Alexander M.;Feng, Oliver;Samworth, Richard J. and Horvath, Rita
Publication Date: 2023
Journal: BMJ Open 13(9), pp. e075598
Abstract: OBJECTIVE: To determine current UK medical students' career intentions after graduation and on completing the Foundation Programme (FP), and to ascertain the motivations behind these intentions. DESIGN: Cross-sectional, mixed-methods survey of UK medical students, using a non-random sampling method. SETTING: All 44 UK medical schools recognised by the General Medical Council. PARTICIPANTS: All UK medical students were eligible to participate. The study sample consisted of 10,486 participants, approximately 25.50 per cent of the medical student population. OUTCOME MEASURES: Career intentions of medical students postgraduation and post-FP, motivations behind these career intentions, characterising the medical student population and correlating demographic factors and propensity to leave the National Health Service (NHS). RESULTS: The majority of participating students (8806/10 486, 83.98 per cent) planned to complete both years of the FP after graduation, with under half of these students (4294/8806, 48.76 per cent) intending to pursue

specialty training thereafter. A subanalysis of career intentions after the FP by year of study revealed a significant decrease in students' intentions to enter specialty training as they advanced through medical school. Approximately a third of surveyed students (3392/10 486, 32.35 per cent) intended to emigrate to practise medicine, with 42.57 per cent (n=1444) of those students not planning to return. In total, 2.89 per cent of students intended to leave medicine altogether (n=303). Remuneration, work-life balance and working conditions were identified as important factors in decision-making regarding emigration and leaving the profession. Subgroup analyses based on gender, type of schooling, fee type and educational background were performed. Only 17.26 per cent of surveyed students were satisfied or very satisfied with the overall prospect of working in the NHS. CONCLUSIONS: The Ascertaining the career Intentions of UK Medical Students study highlights UK students' views and career intentions, revealing a concerning proportion of those surveyed considering alternative careers or emigration. Addressing factors such as remuneration, work-life balance and working conditions may increase retention of doctors and improve workforce planning efforts. Abstract]

Non-medical practitioners in the staffing of emergency departments and urgent treatment centres in England: a mixed qualitative methods study of policy implementation
Author: Drennan, Vari M., Halter, Mary, Taylor, Francesca, Gabe, Jonathan and Jarman, Heather
Publication Date: 2023
Publication Details: BMC health services research, 23, (1) pp.1221. , England:
Abstract: BACKGROUND: Patient demand, internationally, on emergency departments and urgent care treatment centres has grown. Shortages of staff, particularly of emergency medicine doctors, have compounded problems. Some countries are pursuing solutions of including non-medical practitioners e.g.,

nurse practitioners and physician associates/assistants in their emergency department workforces. This study investigated at the macro and meso level of the health system in England: what the rationale was and the factors influencing the current and future employment, or otherwise, of non-medical practitioners in emergency departments and urgent treatment centres., METHODS: Mixed qualitative methods in the interpretative tradition were employed. We undertook, in 2021-2022, a documentary analysis of national, regional and subregional policy (2017-2021), followed by semi-structured interviews of a purposive sample (n = 18) of stakeholders from national, regional and subregional levels. The data were thematically analysed and then synthesised., RESULTS: There was general national policy support for increasing the presence of non-medical practitioners as part of the solution to shortages of emergency medicine doctors. However, evidence of policy support dissipated at regional and subregional levels. There were no published numbers for non-medical practitioners in emergency departments, but stakeholders suggested they were relatively small in number, unevenly distributed and faced uncertain growth. While the experience of the COVID-19 pandemic and its aftermath were said to have made senior decision makers more receptive to workforce innovation, many factors contributed to the uncertain growth. These factors included: limited evidence on the relative advantage of including non-medical practitioners; variation in the models of service being pursued to address patient demand on emergency departments and the place of non-medical practitioners within them; the lack of a national workforce plan with clear directives; and the variation in training for non-medical practitioner roles, combined with the lack of regulation of that level of practice., CONCLUSIONS: We identified many features of a system ready to introduce non-medical practitioners in emergency departments and urgent treatment centres but there were uncertainties and the potential for conflict with other professional groups. One area of

uncertainty was evidence of relative advantage in including non-medical practitioners in staffing. This requires urgent attention to inform decision making for short- and long-term workforce planning. Further investigation is required to consider whether these findings are generalisable to other specialties, and to similar health systems in other countries. Copyright © 2023. The Author(s).

[Effective workforce planning: Understanding final-year nursing and midwifery students' intention to migrate after graduation](#)
Abstract only*
Author(s): Deasy et al.
Source: Journal of Nursing Management 29(2) pp. 220-228
Publication date: 2021
Aims: To examine the factors influencing final-year nursing/midwifery students' intentions to migrate following graduation. Background(s): With expanding global staff shortages, effective recruitment and retention strategies targeted at new nursing/midwifery graduates are necessary. Understanding factors that influence graduates' decisions to migrate or remain in the health care organisation that supported their education is essential but under-researched. Method(s): A cross-sectional electronic survey was distributed to graduating nursing/midwifery students across nine higher education institutions in Ireland with a 36% (N = 407) response rate. Result(s): 85% of Irish (n = 376) nursing/midwifery graduating students reported an intention to migrate overseas and 70% intend to return within 5 years. Pay, working conditions and career were ranked as influencing intentions to migrate. Multivariable analysis illustrated that educational opportunities and friends predict migration, while family and obligation were protective factors. Conclusion(s): Nursing and midwifery leaders and policymakers must reconsider recruitment and retention strategies and embrace innovative and responsive approaches to address migration intentions and trends. Implications for

nursing/midwifery management: Strategic leadership is required to develop effective structures that support personal, professional and career opportunities for new graduates. Targeted recruitment innovations to entice graduates back into the health service are recommended. Copyright © 2020 John Wiley & Sons Ltd

Drexit: Understanding why junior doctors leave their training programs to train overseas: an observational study of UK physicians
Author(s): Wilson et al.
Source: Health Science Reports 4(4)
Publication date: 2021
INTRODUCTION: Drexit ("Doctor-Exit") is the exponentially growing trend for junior doctors in the UK to walk away from their jobs in the National Health Service (NHS). Our objective was to identify the reasons why junior doctors in the UK leave their NHS training programs to train overseas., MATERIALS AND METHODS: A simultaneous and convergent mixed-methods study was performed to analyze both an online survey and semi-structured interviews from junior doctors who had left the NHS. Social media, online professional media, and networks of junior doctors were used to recruit doctors. All were UK medical school graduates who had left the NHS within the last 15 years (2003-2018)., RESULTS: 96.1% (149/155) of respondents reported not being offered an exit interview on leaving the NHS. 94.8% (147/155) of respondents did not regret quitting the NHS. Participants were more satisfied with their pay and work life balance in their overseas posts when compared to training in the NHS (P < 0.05). Burnout was variably defined and was prominent in doctors who left 53.8% (113/210) but was reversed when they practiced medicine overseas in 89.2% (74/83) of cases. Qualitative data identified four key themes which were categorized into push factors, which were lack of interest in retention and bleak outlook; and pull factors, which were

financial vs social capital and things are different overseas., CONCLUSION: Listening to the frontline junior doctors' voices lend insights into a better understanding of the push and pull factors that appear to be exacerbating the exodus of junior doctors from the NHS. Our results indicate that exit interviews should be performed routinely. There needs to be a shift to focus on the training of doctors rather than service provision, with efforts to support, appreciate, and value junior doctors. Further exploration is needed to identify what is happening in training programs overseas to improve retention within the NHS. Furthermore, identifying issues perceived by junior doctors in the UK in the context of workforce planning may be applicable to healthcare systems across the globe. Copyright © 2021 The Authors. Health Science Reports published by Wiley Periodicals LLC.

"We're not there to protect ourselves, we're there to talk about workforce planning": A qualitative study of policy dialogues as a mechanism to inform medical workforce planning Abstract only*
Author(s): Bruen and Brugha
Source: Health Policy 124(7)
Publication date: July 2020
Introduction: To address a disjuncture between medical workforce research and policy activities in Ireland, a series of national level policy dialogues were held between policy stakeholders and researchers to promote the use of research evidence in medical workforce planning. This article reports on findings from a qualitative study of four policy dialogues (2013-2016), the aim of which was to analyse policy dialogues as a mechanism for knowledge-sharing and interaction to support medical workforce planning. Methods: Descriptive qualitative study design involving in-depth interviews with policy stakeholders and researchers (n = 13) who participated in the policy dialogues; thematic analysis of interview transcripts. Findings: Periodic policy dialogues, with discussion focused on

research evidence, provided an enabling environment for exchange and interaction between policy stakeholders and researchers, and between policy stakeholders themselves. Findings foreground the significance of the policy-making context, in terms of how people interact during policy dialogues, and how research can potentially (or not) inform medical workforce planning. Conclusion: Policy dialogues provide a mechanism for improving knowledge exchange and interaction between policy stakeholders and researchers. Situated within the policy context, policy dialogues also add value to: a) policy-making processes by facilitating interactions between policy stakeholders outside the day-to-day business of formal and sometimes adversarial negotiation; b) research processes, including exposing researchers to the complexity of health workforce planning, and health policy more generally.

The times are changing: workforce planning, new health-care models and the need for interprofessional education in Australia
Full text available with NHS OpenAthens account*
Author(s): Thistlethwaite et al.
Source: Journal of Interprofessional Care 33(4)
Publication date: 2019
Following a history of the Australian health system and funding models, we outline workforce issues, in particular, the lack of health professionals in regional locations. The role of the Australian government health departments in workforce planning is discussed. We describe research funded by the Commonwealth government focussing on the development of interprofessional education (IPE) for collaborative practice. New models of interprofessional care have been introduced to help tackle the population needs: in the Australian Capital Territory (ACT); HealthOne in New South Wales; health-care homes nationally; and partnerships between pharmacists and general practitioners in Victoria. Changes in care delivery necessitate innovations in health education, however how IPE is embedded

in Australian health professional education still varies. There is a growing sense of an IPE community complemented by an interest in IPE from peak policy and workforce bodies. There are changes underway in health professional registration and accreditation that are likely to regulate shared and common learning to enable the continuous development of a flexible, responsive and sustainable health workforce. We conclude that there are significant opportunities for further development of IPE and collaborative practice as key strategies for adding to the ability of health systems to address individual needs in conjunction with aiming for optimal and universal health coverage.

NHS managers' use of nursing workforce planning and deployment technologies: a realist synthesis
Author(s): Burton et al.
Source: Health Services and Delivery Research 6(36)
Publication date: November 2018
This synthesis resulted in seven configurations that constitute a programme theory about what works to support NHS managers in the implementation of workforce planning and deployment technologies for nurse staffing.

Is innovative workforce planning software the solution to NHS staffing and cost crisis? An exploration of the locum industry
Author(s): Theodoulou et al.
Source: BMC Health Services Research 18:188
Publication date: 2018
Background: Workforce planning in the British healthcare system (NHS) is associated with significant costs of agency staff employment. The introduction of a novel software (ABG) as a 'people to people economy' (P2PE) platform for temporary staff recruitment offers a potential solution to this problem. Consequently, the focus of this study was twofold – primarily to explore the locum doctor landscape, and secondarily to evaluate

the implementation of P2PE in the healthcare industry. Methods: A Documentary analysis was conducted alongside thirteen semi structured interviews across five informant groups: two industry experts, two healthcare consultants, an executive director, two speciality managers and six doctors. Results: We found that locum doctors are indispensable to covering workforce shortages, yet existing planning and recruitment practices were found to be inefficient, inconsistent and lacking transparency. Contrarily, mobile-first solutions such as ABG seem to secure higher convenience, better transparency, cost and time efficiency. We also identified factors facilitating the successful diffusion of ABG; these were in line with classically cited characteristics of innovation such as trialability, observability, and scope for local reinvention. Drawing upon the concept of value-based healthcare coupled with the analysis of our findings led to the development of Information Exchange System (IES) model, a comprehensive framework allowing a thorough comparison of recruitment practices in healthcare. Conclusion: IES was used to evaluate ABG and its diffusion against other recruitment methods and ABG was found to outperform its alternatives, thus suggesting its potential to solve the staffing and cost crisis at the chosen hospital.

A scoping review of nursing workforce planning and forecasting research Abstract only*
Author(s): Squires et al.
Source: Journal of Nursing Management 25(8)
Publication date: 2017
Aim: This study will critically evaluate forecasting models and their content in workforce planning policies for nursing professionals and to highlight the strengths and the weaknesses of existing approaches. Background: Although macro-level nursing workforce issues may not be the first thing that many nurse managers consider in daily operations, the current and impending nursing shortage in many countries makes nursing

specific models for workforce forecasting important. Method: A scoping review was conducted using a directed and summative content analysis approach to capture supply and demand analytic methods of nurse workforce planning and forecasting. The literature on nurse workforce forecasting studies published in peer-reviewed journals as well as in grey literature was included in the scoping review. Results: Thirty six studies met the inclusion criteria, with the majority coming from the USA. Forecasting methods were biased towards service utilization analyses and were not consistent across studies. Conclusion: Current methods for nurse workforce forecasting are inconsistent and have not accounted sufficiently for socioeconomic and political factors that can influence workforce projections. Additional studies examining past trends are needed to improve future modelling. Implications for nursing management: Accurate nursing workforce forecasting can help nurse managers, administrators and policy makers to understand the supply and demand of the workforce to prepare and maintain an adequate and competent current and future workforce.

Is health workforce planning recognising the dynamic interplay between health literacy at an individual, organisation and system level?
Author(s): Naccarella et al.
Source: Australian Health Review 40 pp. 33-35
Publication date: 2016
The growing demands on the health system to adapt to constant change has led to investment in health workforce planning agencies and approaches. Health workforce planning approaches focusing on identifying, predicting and modelling workforce supply and demand are criticised as being simplistic and not contributing to system-level resiliency. Alternative evidence- and needs-based health workforce planning approaches are being suggested. However, to contribute to system level resiliency, workforce planning approaches need to

also adopt system-based approaches. The increased complexity and fragmentation of the healthcare system, especially for patients with complex and chronic conditions, has also led to a focus on health literacy not simply as an individual trait, but also as a dynamic product of the interaction between individual (patients, workforce)-, organisational- and system-level health literacy. Although it is absolutely essential that patients have a level of health literacy that enables them to navigate and make decisions, so too the health workforce, organisations and indeed the system also needs to be health literate. Herein we explore whether health workforce planning is recognising the dynamic interplay between health literacy at an individual, organisation and system level, and the potential for strengthening resiliency across all those levels.

Rheumatology workforce planning in Western countries: a systematic literature review
Author(s): Dejaco et al.
Source: Arthritis Care & Research 68(12) pp. 1874-1882
Publication date: 2016
Objective: The compare health care planning models forecasting rheumatology workforce requirements in western countries. Methods: A systematic literature review was conducted through medical databases (Ovid MEDLINE, Embase, CINAHL, and Cochrane Library) and the grey literature. All articles reporting a rheumatology workforce model were included. Results: The search yielded 6,508 articles, and 14 publications (on 12 studies) were included. Workforce models were available for the US (n=3), Canada (n=3), the US plus Canada (n=1), Germany (n=2), Spain (n=1), and the UK (n=2). The number of rheumatologists required to serve a population of 100,000 people was calculated, with a range of 0.7 (UK, calculated for 1988) to 3.5 (Spain, calculated for 2021). Most models used a needs-based approach (n=6); 3 studies each applied a supply- or demand-based method. The following variables were considered by ≥1 model:

disease prevalence, patients' referral to rheumatologists, patient flow/care sharing, and medical technologies/ infrastructure development. Conclusion: Heterogeneity in methods used, the period or calendar years for which the estimates were projected, and heterogeneity of variables evaluated led to disparate estimates, with results ranging from 0.7 to 3.5 rheumatologists per 100,000 population. An international initiative is needed to agree upon a common approach for a reliable estimation of manpower requirements in rheumatology.

Workforce planning and development in times of delivery system transformation
Author(s): Pittman and Scully-Russ
Source: Human Resources for Health 14(56)
Publication date: 2016
Background: As implementation of the US Affordable Care Act (ACA) advances, many domestic health systems are considering major changes in how the healthcare workforce is organized. The purpose of this study is to explore the dynamic processes and interactions by which workforce planning and development (WFPD) is evolving in this new environment. Methods: Informed by the theory of loosely coupled systems (LCS), we use a case study design to examine how workforce changes are being managed in Kaiser Permanente and Montefiore Health System. We conducted site visits with in-depth interviews with 8 to 10 stakeholders in each organization. Results: Both systems demonstrate a concern for the impact of change on their workforce and have made commitments to avoid outsourcing and layoffs. Central workforce planning mechanisms have been replaced with strategies to integrate various stakeholders and units in alignment with strategic growth plans. Features of this new approach include early and continuous engagement of labor in innovation; the development of intermediary sense-making structures to garner resources, facilitate plans, and build consensus; and a whole system perspective, rather than a focus

on single professions. We also identify seven principles underlying the WFPD processes in these two cases that can aid in development of a new and more adaptive workforce strategy in healthcare. Conclusions: Since passage of the ACA, healthcare systems are becoming larger and more complex. Insights from these case studies suggest that while organizational history and structure determined different areas of emphasis, our results indicate that large-scale system transformations in healthcare can be managed in ways that enhance the skills and capacities of the workforce. Our findings merit attention, not just by healthcare administrators and union leaders, but by policymakers and scholars interested in making WFPD policies at a state and national level more responsive.

Handling healthcare workforce planning with care: where do we stand?
Author(s): Lopes et al.
Source: Human Resources for Health 13:38
Publication date: 2015
Background: Planning the health-care workforce required to meet the health needs of the population, while providing service levels that maximize the outcome and minimize the financial costs, is a complex task. The problem can be described as assessing the right number of people with the right skills in the right place at the right time, to provide the right services to the right people. The literature available on the subject is vast but sparse, with no consensus established on a definite methodology and technique, making it difficult for the analyst or policy maker to adopt the recent developments or for the academic researcher to improve such a critical field. Methods: We revisited more than 60 years of documented research to better understand the chronological and historical evolution of the area and the methodologies that have stood the test of time. The literature review was conducted in electronic publication databases and focuses on conceptual methodologies rather than

techniques. Results: Four different and widely used approaches were found within the scope of supply and three within demand. We elaborated a map systematizing advantages, limitations and assumptions. Moreover, we provide a list of the data requirements necessary to implement each of the methodologies. We have also identified past and current trends in the field and elaborated a proposal on how to integrate the different methodologies. Conclusion: Methodologies abound, but there is still no definite approach to address HHR planning. Recent literature suggests that an integrated approach is the way to solve such a complex problem, as it combines elements both from supply and demand, and more effort should be put in improving that proposal.

Health and social care workforce planning and development – an overview Full text available with NHS OpenAthens account*
Author(s): Hurst and Patterson
Source: International Journal of Health Care Quality Assurance 27(7)
Publication date: 2014
Purpose: – The purpose of this paper is to discuss the issues relating to getting the right health and social care staff with the right skills in the right place at the right time and at the right price. Design/methodology/approach: – Key points arising from several master-classes with health and social care managers, supported by a literature review, generated remarkable insights into health and social care workforce planning and development (WP&D). Findings: – Flawed methods and overwhelming data are major barriers to health and social care WP&D. Inefficient and ineffective WP&D policy and practice, therefore, may lead to inappropriate care teams, which in turn lead to sub-optimal and costly health and social care. Increasing health and social care demand and service re-design, as the population grows and ages, and services move from hospital to community, means that workforce planners face several challenges. Issues that drive

and restrain their health and social care WP&D efforts are lucid and compelling, which leave planners in no doubt what is expected if they are to succeed and health and social care is to develop. One main barrier they face is that although WP&D definitions and models in the literature are logical, clear and effective, they are imperfect, so planners do not always have comprehensive tools or data to help them determine the ideal workforce. They face other barriers. First, WP&D can be fragmented and uni-disciplinary when modern health and social care is integrating. Second, recruitment and retention problems can easily stymie planners' best endeavours because the people that services need (i.e. staff with the right skills), even if they exist, are not evenly distributed throughout the country. Practical implications: – This paper underlines triangulated workforce demand and supply methods (described in the paper), which help planners to equalise workloads among disparate groups and isolated practitioners – an important job satisfaction and staff retention issue. Regular and systematic workforce reviews help planners to justify their staffing establishments; it seems vital, therefore, that they have robust methods and supporting data at their fingertips. Originality/value: – This paper stock-takes the latest health and social care workforce planning and development issues.

Exploring the relationship between governance mechanisms in healthcare and health workforce outcomes: a systematic review
Author(s): Hastings et al.
Source: BMC Health Services Research 14:479
Publication date: 2014
Background: The objective of this systematic review of diverse evidence was to examine the relationship between health system governance and workforce outcomes. Particular attention was paid to how governance mechanisms facilitate change in the workforce to ensure the effective use of all health providers. Methods: In accordance with standard systematic review procedures, the research team independently screened over 4300 abstracts found in database searches, website searches, and bibliographies. Searches were limited to 2001–2012, included only publications from Canada, the United Kingdom, the Netherlands, New Zealand, Australia, and the United States. Peer- reviewed papers and grey literature were considered. Two reviewers independently rated articles on quality and relevance and classified them into themes identified by the team. One hundred and thirteen articles that discussed both workforce and governance were retained and extracted into narrative summary tables for synthesis. Results: Six types of governance mechanisms emerged from our analysis. Shared governance, Magnet accreditation, and professional development initiatives were all associated with improved outcomes for the health workforce (e.g., decreased turnover, increased job satisfaction, increased empowerment, etc.). Implementation of quality-focused initiatives was associated with apprehension among providers, but opportunities for provider training on these initiatives increased quality and improved work attitudes. Research on reorganization of healthcare delivery suggests that changing to team-based care is accompanied by stress and concerns about role clarity, that outcomes vary for providers in private versus public organizations, and that co-operative clinics are beneficial for physicians. Funding schemes required a supplementary search to achieve adequate depth and coverage. Those findings are reported elsewhere. Conclusions: The results of the review show that while there are governance mechanisms that consider workforce impacts, it is not to the extent one might expect given the importance of the workforce for improving patient outcomes. Furthermore, to successfully implement governance mechanisms in this domain, there are key strategies recommended to support change and achieve desired outcomes. The most important of these are: to build trust by clearly articulating the organization's goal; considering the workforce

through planning, implementation, and evaluation phases; and providing strong leadership.

Integrated Care Systems

Making a difference: workforce skills and capacity for integrated care
Item Type: Journal Article
Authors: Akehurst, Joy;Stronge, Paul;Ling, Jonathon and Giles, Karen
Publication Date: 2022
Journal: Journal of Integrated Care 30(5), pp. 93-107
Abstract: PURPOSE: The aim of this action research was to explore, from a workforce and a patient/carer perspective, the skills and the capacity required to deliver integrated care and to inform future workforce development and planning in a new integrated care system in England.
DESIGN/METHODOLOGY/APPROACH: Semi-structured interviews and focus groups with primary, community, acute care, social care and voluntary care, frontline and managerial staff and with patients and carers receiving these services were undertaken. Data were explored using framework analysis. FINDINGS: Analysis revealed three overarching themes: achieving teamwork and integration, managing demands on capacity and capability and delivering holistic and user-centred care. An organisational development (OD) process was developed as part of the action research process to facilitate the large-scale workforce changes taking place. RESEARCH LIMITATIONS/IMPLICATIONS: This study did not consider workforce development and planning challenges for nursing and care staff in residential, nursing care homes or domiciliary services. This part of the workforce is integral to the care pathways for many patients, and in line with the current emerging national focus on this sector, these groups require

further examination. Further, data explore service users' and carers' perspectives on workforce skills. It proved challenging to recruit patient and carer respondents for the research due to the nature of their illnesses. PRACTICAL IMPLICATIONS: Many of the required skills already existed within the workforce. The OD process facilitated collaborative learning to enhance skills; however, workforce planning across a whole system has challenges in relation to data gathering and management. Ensuring a focus on workforce development and planning is an important part of integrated care development. SOCIAL IMPLICATIONS: This study has implications for social and voluntary sector organisations in respect of inter-agency working practices, as well as the identification of workforce development needs and potential for informing subsequent cross-sector workforce planning arrangements and communication. ORIGINALITY/VALUE: This paper helps to identify the issues and benefits of implementing person-centred, integrated teamworking and the implications for workforce planning and OD approaches. Abstract]

eLearning

Six Steps Approach to Workforce Planning programme
Source: eLearning for Healthcare and Health Education England
The six steps have, for several years, been widely regarded as the method used to support workforce planning in health and social care. This elearning programme can be used as a tool to support health and social care organisations with workforce planning. The programme is made up of six steps which will guide the health and social care professional through the principles and activities of planning.

Workforce Planning Tools available

- WRaPT (The process includes defining the challenge and the goal' understanding your current state; modelling your future state; implantation and support)
- Recipe for Workforce Planning (A process map with stages and documentation designed to help you workforce plan)
- GM Workforce Futures (A portal for sharing toolkits, resources and best practice to support the delivery od local workforce plans - free registration required)
- Capacity Modelling Tool (workbook designed to help you estimate additional demand that may be placed on health and social care community services)
- The Calderdale Framework (Provides a clear and systematic method of reviewing skill mix and roles within a service to ensure quality and safety for patients)
- Six Steps methodology to Integrated Workforce Planning (Is a practical approach to planning that ensures you have a workforce of the right size with the right skills and competences)
- Workforce Planning Toolkit - NHS Wales (based on the Six Step Methodology the toolkits helps in the development of local workforce plans)

Case Studies

There are several case studies as part of the WRaPT workforce planning tool. Skills for Health have a collection of workforce development case studies.

Transforming Bedfordshire's podiatry workforce
Source: NHS Employers

Publication date: 31st May 2023
Bedfordshire have transformed their podiatry services to increase the pipeline into the workforce, develop staff and embed a new leadership approach.

One Devon: Devon ICS' approach to integrating their workforce across the system
Source: NHS Employers
Publication date: November 2022
Read how Devon ICS established the one Devon partnership, to transform care now and for future generations.

Resourcing and Talent Planning 2022: Case Studies
Source: CIPD
Publication date: September 2022
1. Sky – a data-driven model for leadership
2. Network Rail – an evidence-based, collaborative approach to workforce planning
3. NHS England NHSE – Recruiting and vaccinating at speed

CapitalNurse programme: Supporting nursing workforce challenges
Source: NHS Employers
Publication date: January 2020
Find out how nurse leaders, academics and workforce colleagues have worked together as 'CapitalNurse' to meet nursing workforce challenges.

The Star for workforce redesign

More resources and tools are available in the Star

Statistics

You can find relevant statistics on the Health and Care Statistics Landscape under **"Health and Care"** and use the **"Workforce"** filter

National Data Programme

Workforce, Training and Education staff can look at the National Data Warehouse (NDL) SharePoint site to find out more about datasets and Tableau products.

*Help accessing articles or papers

Where a report/ journal article or resource is freely available the link has been provided. If an NHS OpenAthens account is required this has been indicated. It has also been highlighted if only the abstract is available. If you do not have an OpenAthens account you can self-register here.

If you need help accessing an article, or have any other questions, contact the Knowledge Management team for support england.knowledgemanagement@nhs.net