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POLICY BRIEF 4 OF 4

Drivers of change to the skills and competences of the future health workforce in Europe
Health workforces

Horizon scanning for the Joint Action on Health Workforce Planning and Forecasting has carried out research into the driving forces influencing the skills and competences of the health workforce in the EU to out 2035.

This briefing is part of a series aimed at policy makers and workforce planners across Europe; it summarises the key drivers acting on health workforces and their potential skills and competence implications.

Building on our understanding of the driving forces acting at the population and health care services level and their skills and competence implications, this brief considers the drivers acting on health workforces.

The main drivers acting on this part of the system include an ageing health workforce, potential changes to education and training, health IT, skill mix and competition for workforce.

Driving forces

Ageing health workforce
The health workforce in the EU shares some of the characteristics of the population from which it is drawn, so a change in population structure towards the older age bands in the overall population may also present the challenge of an ageing health workforce.

Considering that a large proportion of the workforce of 2035 are already within the system also highlights the requirement to invest in and update the skills and competences of the existing workforce.
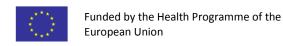
Multi-professional education
Central to considerations of the future for both healthcare services and health workforces is the extent to which disruptive technologies (European Commission, 2015d), demand pressures or other factors cause substantial changes in the organisation of services and workforces and therefore the ways that they can be approached for workforce analysis.

Large or even paradigm shifts may be plausible in health care within a twenty year timeframe which would alter the way that supply and demand pressures could be met and the types of policy levers which would be available to workforce planners to consider supply and demand issues.

A workforce example of the type of large shift which would result in changes to workforce planning analysis and projections are proposals towards multi-professional post-secondary education and the adaptation of competences to specific contexts (Lancet Global Independent Commission, 2012)

Health IT and health workforces
Developments in the interoperability of Electronic Health Records (EHRs) may affect the way that health workforces access and engage in the production of research (Longhurst *et al*, 2014).

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At the health workforce level, telemedicine, remote care and the use of other types of clinical decision support may also impact on the negotiation of tasks between roles (Weiner *et al*, 2013).

Further to this, technological developments involving the role of computerisation may affect the wider labour market, where the comparative advantage of computers over humans for certain tasks may mean that jobs may be more or less susceptible to automation, depending on factors such as the level of social intelligence they use (Frey and Osborne, 2013).

Whilst health care roles are judged to be at a low risk of computerisation within this classification, developments may mean that there are certain aspects of roles which may be amenable to automation, depending on the scale and pace of technological growth in this area and the desirability of such changes. Health IT may impact on 'digital workflow, computerised knowledge management and decision support' - meaning that tasks performed by health professionals are pushed more towards communication, guidance and support (Sochalski and Weiner, 2011).

Skill mix and workforce planning
Changes in the tasks, and the division of tasks, that health workforces perform may be driven by a range of factors, or combinations of factors. For example health IT (as above) or strategic changes to provide a greater proportion of care for long-term conditions in primary care settings may alter the respective roles of health care professionals (Wismar *et al*, 2015).

Considerations of skill mix present a series of fundamental considerations for workforce planning and health systems in general. The considerations include, importantly, the quality of care received by patients and the value of work provided by health workforces (Griffiths, 2012) as well as its cost effectiveness (e.g. Martin-Misener *et al*, 2015). Scopes of practice and the effective regulation of health workforces also plays an important part in 'ensuring that professionals are competent, sufficiently experienced and adhere to agreed standards of ethical practice' (WHO, 2015).

From a planning perspective individual workforce projections should seek to incorporate likely changes in scopes of practice over time, whilst fully acknowledging the challenge that the

detailed task negotiation that informs these changes may be best addressed outside of workforce projections. To deal with this complexity workforce planners may also wish to develop multiple workforce models with aligned assumptions.

Health workforce competition
The health sector is in competition with other sectors in national economies to attract and retain workers. Planning projections may consider this national competition in projections or scenarios. There is also an additional international element which has specific elements for health workforces.

'Poor and rich countries both have workforce shortages, skill-mix imbalances, and maldistribution of professionals' (Lancet Global Independent Commission, 2012). These distributional issues may not be confined to national borders and they may be exacerbated by global competition for health workforces, for example where countries may rapidly scale up their health systems simultaneously. The dynamic nature of health professional mobility means that no countries may 'consider itself safe' with regard to its current position (Glinos *et* al, 2014). Global movement of health professionals also presents a series of normative questions with regards to universal health coverage in the context of sustainable development goals (WHO, 2015).

Within countries, the distribution of health workforces to population health is also an issue. In the OECD for example, 'the mismatch of physicians to population health is the most commonly named current human resource policy concern in the health sector' (Ono *et al,* 2014).

Future workforce planning research to model the age profile of health workforces to account both for expected attrition and for dynamic international demands may be required to better anticipate spatial and skill distributions and their effects. Important in this context is also the relationship between staffing levels and work environments on the outcomes of care (RN4CAST Consortium, Aiken *et al*, 2012). It is in this respect that the numbers of health workforce available may be most clearly related to the skills and competences of health workforces, in that health workforce shortages may impair the ability of staff to carry out tasks to their appropriate skill level, potentially resulting in sub-optimal patient outcomes.

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Skills and competence implications

Health workforce planning typically involves long timescales, for example between health workforces beginning and completing education and training programmes.

Whilst a role of workforce planners is to consider the aggregate effects of these driving forces on their health workforces over long timescales here we consider some of the skills and competence implications that emerged from the horizon scanning exercise.

Overview

▶ Technology changes may alter the balance of tasks between health workforces and require a greater multidisciplinary focus in education and training.
▶ Workforce planners need to develop their skills to understand inter-dependencies and risks to health workforces.

Skills and competence implications

Increases in the following areas of competence and skill were identified as part of horizon scanning.

Multi and inter-disciplinary team working that includes a range of 'different professional groups, deliver[ing] higher quality patient care and implement[ing] more innovations in patient care' (Borrill et al, 2013). This has the potential to reduce duplication of processes, increase the flow of information between workforce groups and reduce 'therapeutic partition' – boundaries between workforce groups which create additional appointments or transactions for the patient (Nancarrow, 2015).

Our health systems and workforce face many changes ahead. Changes in health systems, populations, patient expectations, technologies and innovations over the next 20 years will require our health systems to flex and adapt. These adaptations could be in response to expected changes and also through responses to events such as economic recessions and pandemic risks. All health systems can be affected by shocks and stresses (WHO, 2014b) such as these economic, pandemic and mobility risks. Resilient health systems take into account possible

plausible futures and the possible impacts to their populations, services and the workforce, working to support, protect and help systems deal with these events (CfWI, 2015a).

Regulatory awareness and revalidation skills
Health care professionals working in the EU face differing CPD, regulatory and re-certification changes as revalidation becomes more prevalent in Europe's health systems. Each member state has different requirements, ranging from an absence of revalidation to more substantial requirements and processes (Villanueva, 2010). When considering a mobile health workforce operating across different borders, geographies and health systems (especially when using technology for remote consultations in the future), health professionals will need to be aware of the differing regulatory, licensing and recertification requirements for each system they work in.

Presently most health systems regulate their respective health professions and hold information (Matrix insight & CfWI, 2012). With increased discussion and awareness on the need to integrate services and provided more generalist skills and work in broader teams are enabled by technology, the healthcare professionals who are serving the needs of this changing and mobile population may have overlapping or duplicated regulatory practices and requirements. Future regulation arrangements may see a change towards the regulation of specific clinical and care 'acts, services and practices' related to healthcare delivery such as 'communicating diagnosis, performing a procedure, administering a drug' (Leggat, 2014) rather than fixed boundaries of specific professions.

Systems thinking and workforce planning skills and competence will be areas of increased demand for the future as our knowledge of their interrelationships develops. The interconnectedness of how health systems operate, their complexity and how they interact have implications for the achievement of equitable health outcomes (Adam, 2012). Within Europe there is increasing awareness within workforces of their own planning issues as well as developing dialogue at global, EU, national and sub-national levels.

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However, there is a wide variation of workforce planning practice and capability (Matrix insight & CfWI, 2012) as well as health workforce shortages (EU Commission, 2012) and issues such as mobility (Kovács R et al, 2015; EU Observatory on Health Systems and Policies, 2014). The attainment or further development of systems thinking and workforce planning skills will be key to future success in light of the future uncertainties and challenges.

Workforce planning, education and training considerations and workforce examples from horizon scanning

Examples of possible impacts to the workforce as shared by respondents	▶ For **all workforces** there is a risk of fewer professionals in the future due to poor working conditions, pressures and restrictions on working time that can impact the time professionals have to gain experience to gain and keep their competence.
	▶ For **all regulated professions**, regulation and legislation may be politically driven and defines what professions can do. There is a diverse situation of practice across Europe. Differences in cost, access and quality change professional boundaries as well whether professions are task or clinical protocol driven care.
	▶ For **all workforces** a legal framework that allows for the efficient sharing of information between and across **clinicians, carers and patients** will be essential in the future. Currently this is a heavily regulated space, and may be regarded as a bottleneck. It is necessary for the legal frameworks to be updated to allow data to be shared efficiently and legally.
	▶ For **all workforces** the reconciliation of **work-life balance** may become more prevalent within Member States. Across Member States there is an increase in wealth and education which is changing peoples' attitudes to work.
	▶ **Midwives** and other workforces that operate in the public and private sectors are affected in some member states by societal trends towards individual responsibilities in insurance and finances. For example, high insurance premiums for midwives may significantly reduce income and may reduce the amount of service they choose to provide.
	▶ The public perception of the skills and competences of the workforce compared to roles is changing. The public's belief of whether a role has the right skills to treat certain conditions is changing due to the increased number of roles within the workforce. This is also balanced by the legal authority, from a clinical perspective, for that given role to administer treatment. The increased ability of a wider variety of roles to administer a given treatment may result in 'competency protection'.
Education and training considerations	▶ Increased pressure on professionals as a result of new expectations of healthcare fuelled by new developments in technology, ageing of the population and responding to these needs. We may face continued blurring of boundaries of work and personal life which increases the risk of burnout. There is a need for increased availability of coping skills in the existing and new workforce.
	▶ Regulatory, legal indemnity and revalidation awareness may need to be part of the modern health professionals' future training. The scope of practice, differences they will encounter as well as how they assessed and evaluated will be key areas of training and knowledge.
	▶ Any reappraisal of the health professionals' roles within the context of multi-disciplinary teams and regulatory requirements will require education and training strategies to be carefully considered. Increased specialisation and shared skills

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	are becoming more common e.g. doctors and nurse specialists or skilled community mental health nurses in general practice.
Workforce planning considerations	▶ Should member states be trying to engineer more of the same workforces to solve a changing future problem? Opportunities to examine skills and competence from a wider workforce might yield solutions to present and future imbalances. For examples doctors, nurses, physicians assistants, nursing assistants, advanced practitioners, hybrid roles and other allied health professionals.
	▶ Just focusing on workforce numbers is unlikely to be sufficient. It will be important to understand how systems work and how they can be resilient to future shocks and stresses. It will be important to understand which workforce groups deliver what skills to meet demand, how much might this demand may change in future, where mismatches or imbalances of supply are and where the workforce pressures are that require different system or lower level actions.

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