Workforce innovations for better performing health systems in Europe: linking evidence, policy and practice

Inovações na força de trabalho para um melhor desempenho dos sistemas de saúde na Europa: ligando evidências, políticas e práticas

André Beja
WHO Collaborating Center on Health Workforce Policy and Planning, Global Health and Tropical Medicine (GHMT), Instituto de Higiene e Medicina Tropical. Universidade NOVA de Lisboa (IHMT-UNL), Portugal

Roberto Esteves
WHO Collaborating Center on Health Workforce Policy and Planning, Global Health and Tropical Medicine (GHMT), Instituto de Higiene e Medicina Tropical. Universidade NOVA de Lisboa (IHMT-UNL), Portugal

Marta Temido
WHO Collaborating Center on Health Workforce Policy and Planning, Global Health and Tropical Medicine (GHMT), Instituto de Higiene e Medicina Tropical. Universidade NOVA de Lisboa (IHMT-UNL), Portugal

Gilles Dussault
WHO Collaborating Center on Health Workforce Policy and Planning, Global Health and Tropical Medicine (GHMT), Instituto de Higiene e Medicina Tropical. Universidade NOVA de Lisboa (IHMT-UNL), Portugal

Isabel Craveiro
WHO Collaborating Center on Health Workforce Policy and Planning, Global Health and Tropical Medicine (GHMT), Instituto de Higiene e Medicina Tropical. Universidade NOVA de Lisboa (IHMT-UNL), Portugal

Abstract

The adoption of the Sustainable Development Goals and the achievement of universal health coverage in Europe make a health workforce fit-for-this purposes more necessary than ever. Several examples of WHO initiatives or distinct measures implemented in different countries show that there is a knowledge base for strengthen the health workforce that seems to be underutilized by policy-makers, which raises questions about technical and political difficulties in sharing, integrating and implementing innovation.

With these questions in mind, the Institute for Hygiene and Tropical Medicine (Lisbon) convened a conference to take stock of some innovations in education, teamwork, skills-mix, recruitment and retention, planning, management and governance and to discuss their contribution to improve the performance of the health workforce. Additionally, participants reflected on facilitators and barriers to changing the health workforce. The authors of this paper gathered the "take-home messages" of the event.

This article presents the main messages drawn from the presentations, intersecting them with literature, and discusses the issue of the use of evidence to inform policy and decision-making in relation to health workforce development. It emphasizes the need to promote innovation through evidence-based and agenda-driven strategies, which considers sociopolitical contexts, population needs and stakeholder engagement.

Key Words:
Human resources for health, health workforce, innovation, health policy, strategic planning.

Resumo

A adoção dos Objetivos de Desenvolvimento Sustentável e o alcance da cobertura universal na Europa relevam a necessidade da adequação da força de trabalho da saúde. Vários exemplos de iniciativas da OMS ou de medidas implementadas em diferentes países mostram que existe uma base de conhecimento que parece subutilizada pelos decisores políticos, levantando questões sobre dificuldades técnicas e políticas na partilha, integração e implementação da inovação no fortalecimento desta força de trabalho.

Partindo destas preocupações, o Instituto de Higiene e Medicina Tropical organizou uma conferência para analisar inovações em educação, recrutamento e retenção de trabalhadores da saúde, incluindo trabalho em equipe, skill-mix, planeamento, gestão e governança, e para discutir contributos para melhorar o seu desempenho. Os participantes refletiram ainda sobre facilitadores e barreiras para mudar a força de trabalho. Os autores deste trabalho coligiram a síntese final do evento.

Este artigo reúne as principais mensagens apresentadas, cruzando-as com a literatura, e discute o uso de evidências para apoio às políticas e tomadas de decisão relativas ao desenvolvimento da força de trabalho. Enfatiza-se a necessidade de promover inovação através de estratégias baseadas em evidências e nas agendas nacionais e locais, sem descurar contextos sociopolíticos, necessidades da população e envolvimento de stakeholders.

Palavras Chave:
Recursos humanos da saúde, força de trabalho da saúde, inovação, política de saúde, planeamento estratégico.

Context

The adoption of Sustainable Development Goals (SDGs) to be attained in 2030 and the commitment of all European countries to achieving universal health coverage (UHC) make a health workforce fit-for-this purpose more necessary than ever. There is a consensus that more health workers, with the right competencies, are needed to deliver people-centered care in a context of high prevalence of non-communicable and chronic diseases in the region. Forty years after the Alma-Ata Declaration [1], accessible quality primary health care (PHC) services remain the most effective strategy to address the great majority of health needs.

The WHO and its Regional Office for Europe have produced strategies that countries can use to strengthen their health workforce. [2,3] In parallel, some countries have developed innovative measures to improve the performance of their workforce, but these are not always well known or disseminated. There is an evidence base that seems underutilized by policy-makers, which raises several questions, such as why these innovations are not implemented more widely? Is it because they are not known? Is their implementation too complex? Or is there lack of political support to incorporate them?

With these questions in mind, the Institute for Hygiene and Tropical Medicine (Lisbon), which is a WHO Collaborating Center on Health Workforce Policy and Planning, convened a conference to take stock of some innovations in education, recruitment and retention, teamwork, skill-mix, planning, management and governance and to discuss their contribution to improve the performance of the health workforce. Additionally, participants reflected on facilitators and barriers to changing the health workforce. The authors of this paper gathered the "take-home messages" presented at end of the event.

This article presents the main messages drawn from the various presentations[1], intersecting them with literature, and discusses the issue of the utilization of evidence to inform policy and decision-making in relation to health workforce development.

Education and training

A better performing future health workforce cannot be educated and trained just like the existing one has been. For almost a decade, the need to transform the education of health professionals has been well formulated.

[4,5] For example, greater emphasis on leadership skills will enable them to deal with diverse communities with complex needs and to work with a wide range of other workers across professional and organizational boundaries. This is what England's "NHS Leadership Academy"[2] was conceived to do. Traditional clinical training paid insufficient attention to skills in communicating with patients and their relatives or carers, despite evidence of a positive impact on health results (e.g., readmission rates, understanding treatment options and adherence to treatment). Intercultural education, as promoted by the "International Network for Health Workforce Education"[3] is also crucial, assuring that health workers provide optimal care regardless of ethnic and social background, religious or cultural beliefs.

The acquisition of these skills, which help professionals to be more centred on people needs, can be facilitated by education institutions selecting the right candidates. Academic grades are a good predictor of academic performance, but not necessarily of future acceptability in practice. In the United Kingdom, innovative selection methods, such as situation judgement tests, have been used with success for admissions in an increasing number of medical and dental schools through the UK Clinical Aptitude Test[4], a tool used to assess attitudinal and behavioral attributes such as showing empathy, benevolence, respect, capacity to adapt to difficult situations. Researchers who evaluated this experience concluded that "non-academic attributes should be used for 'selecting out' and academic attributes used for 'selecting in'. [6] Also, communication with other health professionals can be improved by interprofessional education.

Teamwork

Multiprofessional teams have been advocated since the Alma-Ata Declaration. While it is clear that teamwork contributes to the effectiveness and quality of care as well as the efficient utilization of resources, there is less clarity about how to organize teams and how to make them effective. The teamwork experience of Family Health Units (FHUs) in Portugal is innovative and lessons can be derived from it. FHUs are small multi-professional, stable teams, of 5 to 10 physicians, 6 to 10 nurses and 4

1 - See on "Workforce Innovations for Better Performing Health Systems in Europe" at: http://www.ihmt.unl.pt/en/conference-workforce-innovations/

2 - https://www.leadershipacademy.nhs.uk/

3 - http://www.inhwe.org/

4 - http://www.ukcat.ac.uk/

to 8 clinical secretaries. The most important feature of these teams is that they are composed of mutually selected members who together apply for the mandate of delivering primary care services to a geographically defined population - originally from about 1500 people per Physician, the list of patients can now approach 1900 people (the exact number is defined through a system of Weighted Health Units). .

These teams have organizational autonomy; all members participate on the same footing in planning decisions, such as the definition of objectives and of programs of activities. There are group incentives linked to workload and performance. FHUs also develop in-house training and aim at transforming themselves into learning organisations. However, FHUs do not have financial autonomy, which is seen as a limitation. Evaluations have shown positive results concerning the creation of such teams in terms of improved access, better coverage of chronic patients and other programs such as flu vaccination, as well as users and team members satisfaction. There are regional support groups and a national association of FHUs which conduct studies and offer services such as continuous education; this support is perceived as a motivating fator and effective in helping teams improve their performance. Even though FHUs have been evaluated positively, the low number of nurses and clinical secretaries is recognized as limiting the technical efficiency of these teams. [7]

Recruitment and retention

Most EU countries experience recruitment and retention difficulties, whether this means attracting students to the health professions –medicine being the exception- and to certain fields of practice (family practice, geriatrics, mental health, public health), or when they graduate to attract and retain them in geographical zones with unmet needs. Numerous innovations have been reported, such as the French *Pacte Territoire de Santé* or the Dutch Buurtzorg model of care. [8]

The *Pacte Territoire de Santé* is an incentive program with measures in three distinct categories - education and installation, working conditions, investments in underserved area - intended for attracting to and retaining physicians in areas with shortages[5]. Created in 2012, there has been a growing demand for scholarships offered, which is an indicator of program success. [8,9]

The Buurtzog model is a patient-centered treatment model combined with self-managed teams of visiting nurses developed in the Netherlands and adopted, among others, in the UK, USA, Japan and Sweden. Its architecture and implementation have resulted in increased levels of satisfaction and motivation of the professionals involved, which is considered a fundamental condition for the retention of the workforce [6]. [8,10]

Skill-mix

The issue of skill-mix is related to that of teamwork as it refers to how work will be divided and organized. As population health needs in Europe are changing (e.g., growing burden of chronic diseases and of multi-morbidity), rethinking the health workforce skill-mix is on the agenda of many countries, some of whom have already innovated, for example by granting prescription rights to nurses.

The European Observatory of health systems and policies has analysed 17 country case studies of skill-mix innovations to improve the performance of their primary and chronic care systems. All focussed on building teams, which in some cases include non-health workers, such as social workers (Austria), fire fighters (Manchester, England) or housing officers (various municipalities, also in England), informal carers (Denmark) and volunteers (France). Authors of the studies (in print) observed that most skill mix reforms in Europe took time and were usually incremental. Lessons learned pointed to certain strategic elements for successful implementation: long-term commitment, incremental approach, legal latitude, financial space for piloting innovations and self-induced culture change of the medical profession.

The most critical and difficult changes take place in nursing, which is to be expected given the central role of nurses at all levels of care. European countries are at different stages of introducing or expanding the contribution of nurses in advanced roles; ten have already authorized some type of prescription rights to nurses, but a majority are still lagging even in discussing this possibility [5,11] Systematic reviews of the quality and effectiveness of nurses in advanced roles show that they provide at least equivalent quality of care as general practitioners (GPs). These are quite compelling messages for policymakers, requiring their attention to the implications of skill-mix options for health systems, payers, teams and patients. Nevertheless, skill-mix innovations are often

---

5 - https://solidarites-sante.gouv.fr/archives/pts/article/2015-pacte-territoire--sante-2

6 - https://www.buurtzorg.com/about-us/buurtzorgmodel/

controversial and opposed by some stakeholders, though there are examples of "unexpected" support as in Poland, where the Physicians' Association supported prescribing by nurses.

Although focused on the roles of physicians and nurses, the skill-mix discussion covers other segments of the health workforce and encompasses processes that, for their potential for innovation and strengthening of health systems, should be valued and leveraged. The definition of standards for the education and training of support workers who carry out key activities in health teams, such as Health Care Assistants, is an example of this, since their responsibilities and boundaries are not always clear and their qualification can contribute to the safety of health care and the optimization of the workforce. [12]

Planning

Planning the future medical workforce is notoriously the most challenging task because changes in the burden of disease, in the organization of services and in the individual and collective behavior of health workers make future needs difficult to assess. The Netherlands have a system in place, consisting of a supply and needs based simulation and forecasting model combined with a policy model which aims to address systemic labour market imbalances, both quantitatively and qualitatively. The policy model seeks to build consensus and commitment of the three main groups of stakeholders (professionals, training institutions and health insurers) on the outcome of the mathematical model and the policy recommendations it suggests. This approach to planning has worked since 1999, but its sustainability remains fragile, for it depends on the continued recognition, acceptance and support of the Ministry of Health and other stakeholders. There are still challenges to improve this model: how to define the substitution ratios between medical specialists and GPs, as well as between physicians and other health care professionals? What tasks exactly could be transferred from one cadre to another, based on the current set of knowledge and competencies? Is this task-shifting legally feasible or even desirable by patients or health insurers? One lesson learned along the years is summarized in the saying "*plan long, act short, update often*".

In Portugal, the University of Aveiro developed the *Health 2040* project, which considers not only traditional driving forces of supply (e.g. wages, professional competencies, workers demographic trends) and demand (e.g. population demographics, epidemiology) for healthcare profes-

sionals, but also possible changes in healthcare organization and technological change. Contrary to the Dutch model, it estimates the supply and demand requirements of both nurses and physicians, though it does not address the issue of spatial maldistribution of physicians and nurses. Preliminary results indicate a relative flattening of the number of physicians combined with a growing availability of nurses by 2034. Policymakers are thus challenged to decide now the number of entrants in medical and nursing programs and address the implications of their decisions on the education capacity.

Governance

Cross-country comparative studies of health workforce governance [8] identified three dominant strategies of health workforce development in Europe: organizational change, professional and competencies development. The first type seems to be prioritized in health systems where doctors are a leading force in governance settings and policy processes, often resisting the creation of new roles for other healthcare professionals. Professional development happens more often in national health services/systems where doctors are outsiders in the decision-making process. Finally, competencies developments focus on micro-level changes and education (e.g. development of communication and other skills), but tend to happen inside professional silos and be poorly connected to complex governance changes. A more comprehensive model for integrated health workforce governance would combine hierarchical levels of workforce governance (transnational, macro, meso and micro levels) with content-based dimensions (system integration, sector integration, occupational integration, socio-cultural integration and gender equality). The question now is how to reach out to policy-makers to convince them to adopt such a model.

Discussion

The discussion on innovation in health is not new and has a broad scope and multiple approaches. Starting with the very definition of the term innovation and the criteria for a particular intervention to be considered innovation or from which window of time and the process that makes an innovative idea into the mainstream or an outdated trend. [13] WHO defines Health innovation has new or improved health policies, systems, products and technologies, and services and delivery methods that improve people's

health and wellbeing, by creating new ways of thinking and working and adding value in the form of improved efficiency, effectiveness, quality, sustainability, safety and/or affordability. [14]

This approach, and the discussion we have witnessed throughout the conference, emphasizes the idea that innovation is far more than a technological novelty or an idea that has never been formulated. It must be considered in the context in which a particular intervention is implemented, what problems it purports to solve, what its costs are or the evidence base that supports it. A dominant idea in one place may be an innovative solution in another context, so mechanisms for sharing evidence and good practice (from planning to evaluation) are needed, as well as a translational perspective to turn knowledge into new solutions.

The conception of innovations is certainly most important, but their implementation is what really matters in the end. For example, digital tools derived from e-health and m-health allow permanent communication and clinical data transmission between professionals and healthcare units and can also facilitate care management, team reorganization and delegation, thereby making health workers more performing, more widely available and accessible at a reduced cost without loss of quality. This challenges health professionals, managers and policymakers to pay attention to the need to strengthen health information systems and knowledge sharing, as well as legal aspects of data protection and the need for policies and skills to prevent risks associated with new threats to health systems, such as breach of privacy by the massive use of communications applications to share clinical information, cyber-attacks or pressures from industry and technology vendors. However, most European countries make limited use of these tools and have done little to equip their workforce with adequate technological and digital skills or to develop the new professions that emerge in response to changes in digitalized healthcare settings. [15]

Another example of innovation which many countries are slow to implement is that of nurse practitioners, who have been available for more than thirty years in the United States of America. In reaction to the underutilization of nurses globally, the *Nursing Now* campaign[7], supported by the WHO and the International Council of Nurses, was launched to raise the profile and status of nurses.

The question is therefore: what facilitates or hinders the adoption of innovations whose effectiveness has been demonstrated? Some environmental fators can enable the adoption of workforce innovations, such as high-level government engagement and political will, civil society support or funding and incentives. Facilitating strategies include small pilot experiments that address stakeholders' immediate needs, engage patients in the process, show the benefits of an innovation and "to spark appetite for wider scaling". This helps overcome the "not-invented here syndrome" that is often the principal obstacle to change. Another facilitator is the availability of professionals and managers with a vision of change and the capacity of implementing it who act as champions of change. To achieve a critical mass of these, changes in content, contexts and methodologies of education programs, to emphasize skills such as leadership, networking and change management must take place.

Even though we covered only a limited number of innovations, there are some lessons that can be extracted from them. One is that irrespective of their intrinsic value, health workforce innovations become reality only if effective strategies are deployed to foster their acceptance. First, promoters of innovation must be attentive to windows of opportunity, such as a crisis situation, popular demand or a political change, and be ready to take advantage of them. Engaging stakeholders early and demonstrating alignment with national and local agendas are also of critical importance. So is the production of evidence on the benefits of the innovation and above all its strategical dissemination so that it reaches those who make policy decisions. This is what the Academy of Fabulous Stuff in England does by making good practice examples, new ideas and service solutions available to all[8]. There are certainly many health workforce innovations in the EU worth being disseminated which remain confidential and therefore cannot benefit the whole of the region. In the present context of changing population needs and of shortages of health workers and other labour market imbalances, it is more imperative than ever that researchers produce politically relevant evidence if it is to be considered.

Acknowledgement

---

7 - http://www.nursingnow.org/

8 - https://fabnhsstuff.net/

Bibliography

1.   WHO, UNICEF. Declaration of Alma-Ata - International Conference on Primary Health Care [Internet]. WHO - World Health Organization; 1978. [citado 9 de Novembro de 2018] Disponível em: http://www.who.int/publications/almaata_declaration_en.pdf

2.   WHO. Global strategy on human resources for health: Workforce 2030 [Internet]. Geneva: Word Health Organization; 2016 [citado 18 de Janeiro de 2017]. Disponível em: http://who.int/hrh/resources/pub_globstrathrh-2030/en/

3.   WHO Europe. Towards a sustainable health workforce in the WHO European Region: framework for action. [Internet]. WHO Regional Office for Europe; 2017. Disponível em: http://www.euro.who.int/__data/assets/pdf_file/0011/343946/67wd10e_HRH_Framework_170677.pdf

4.   Frenk J, Bhutta ZA, Chen LC-H, Cohen J, Crisp N, Evans T, et al. Health Professionals for a New Century: Transforming Education to Strengthen Health Systems in an Interdependent World. The Lancet. 2010;376(9756):1923–58.

5.   WHO. Transforming and scaling up health professionals' education and training: World Health Organization Guidelines 2013 [Internet]. Geneve: WHO - World Health Organization; 2013 [citado 9 de Novembro de 2018]. Disponível em: http://www.who.int/hrh/resources/transf_scaling_hpet/en/

6.   Patterson F, Knight A, Dowell J, Nicholson S, Cousans F, Cleland J. How effective are selection methods in medical education? A systematic review. Medical Education. 1 de Janeiro de 2016;50(1):36–60.

7.   Biscaia AR, Pereira A, Cardeira R, Fehn AC, Pinto TV. O Momento Atual da Reforma dos Cuidados de Saúde Primários em Portugal 2017/2018 - Questionário aos coordenadores de USF (Relatório do estudo) [Internet]. Lisboa: USF-AN – Associação Nacional de Unidades de Saúde Familiar; 2018 [citado 1 de Dezembro de 2018] p. 299. Disponível em: https://mega.nz/#!RMlRTIya!nY-NR398ihwVO-VH_FKmMDYYF4xaYPbl1lhJehSp59TY

8.   Kroezen M, Dussault G, Craveiro I, Dieleman M, Jansen C, Buchan J, et al. Recruitment and retention of health professionals across Europe: A literature review and multiple case study research. Health Policy. 1 de Dezembro de 2015;119(12):1517–28.

9.   Braichet J-M. Le Pacte territoire santé - A French program for recruitment and retention of health workers in underserved areas (PPT presentation) [Internet]. Meeting of the Expert group on European Health; 2015 [citado 1 de Dezembro de 2018]; Brussels. Disponível em: https://ec.europa.eu/health/sites/health/files/workforce/docs/ev_20150617_co06_en.pdf

10.   Drennan VM, Calestani M, Ross F, Saunders M, West P. Tackling the workforce crisis in district nursing: can the Dutch Buurtzorg model offer a solution and a better patient experience? A mixed methods case study. BMJ Open. 1 de Junho de 2018;8(6):e021931.

11.   Maier CB, Aiken LH, Busse R. Nurses in advanced roles in primary care. OECD Health Working Papers [Internet]. 20 de Novembro de 2017 [citado 9 de Novembro de 2018];(98). Disponível em: https://www.oecd-ilibrary.org/social-issues-migration-health/nurses-in-advanced-roles-in-primary-care_a8756593-en

12.   Braeseke G, Hernández J, Dreher B, Birkenstock J, Filkins J, Preusker U, et al. EU-Project: Creating a Pilot Network of Nurse Educators and Regulators (SANCO/1/2009) – Final Report [Internet]. European Comission; 2014 [citado 27 de Maio de 2016]. Disponível em: http://www.hca-network.eu/downloads/SANCO%201%202009%20Final%20Report%202014.pdf

13.   Kimble L, Massoud MR. What do we mean by Innovation in Healthcare? European Medical Journal. 2017;(1):89–91.

14.   WHO | Innovation (WHO health topic page on innovation) [Internet]. WHO. 2016 [citado 3 de Dezembro de 2018]. Disponível em: http://www.who.int/topics/innovation/en/

15.   Lapao L, Dussault G. The contribution of eHealth and mHealth to improving the performance of the health workforce: a review. Public Health Panorama. 2017;3:463–71.

Conflitos de interesses:

Os autores declaram que não existem conflitos de interesses.