Key for classifying research inference

- Descriptive
- Exploratory
- Explanatory
- Emancipatory
- Influence
- Predictive
Chapter 2.

Social contexts and relations shaping health workers

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2.1 Defining the chapter

Health workers, in addition to working for health, are first and foremost human beings. Their empathy, intuition and ingenuity, alongside their technical skills, are critical in negotiating the social contexts that shape their work environment and professional practice. This emphasis on human agency and social context is a key characteristic of people-centred health systems (Sheikh et al., 2014). While this reader highlights health workers as active agents in multiple places, this chapter in particular focuses on the social relations and social systems that embed and are negotiated by health workers. These include the broad social norms and structural forces that foster equity and solidarity or, conversely, that constrain livelihoods and survival. These social dynamics also shape and are shaped by the markets in which health workers practise or to which they are compelled to move.

In foregrounding these social relations and contexts, this chapter closely mirrors Chapter 1 on health worker profiles by describing the social forces that underpin who health workers are and where they work. The influence of social relations and context also cuts across Chapter 4, covering performance, and Chapter 5, covering motivation. Our chapter focuses on macro-level social dynamics, while those that manifest at the meso-level are covered in Chapter 6 on management, leadership and organizational culture. This chapter also complements Chapter 7 on policies and politics, which emphasizes the political processes, including health reforms and donor initiatives, involved in shaping policies and health worker practice. Finally, while we review social relations and contexts in this chapter, we do so illustratively, as it is beyond the scope of this reader to comprehensively document health policy and systems research (HPSR) on every facet of social contexts and relations shaping health workers.

2.2 Background on social forces

Research on human resources for health (HRH) has focused on technical inputs, such as the content of enabling policies, the nature of training and supervision, and other determinants of health worker performance (Kok et al., 2015a). The link between macro-structural context and health worker profiles, experiences and capacities is rarely examined in depth (Kok et al., 2015b; Schneider and Lehmann, 2016; Sheikh and George, 2010). Ideally, responsive health workers working within progressive health systems generate trust and well-being that can redress social inequalities (Gilson et al., 2007). At the other extreme, whether related to extreme humanitarian crises or more normalized everyday stress, discrimination and insecurity, detrimental social contexts and relations curtail professional opportunities, increase vulnerability to violence and diminish livelihoods.
Humanitarian crises due to conflict, natural disasters or unanticipated disease outbreaks are increasing across the world, with extreme consequences for the most marginalized people. Attention to health workers in such circumstances, characterized by problems of donor coordination, coupled with weakened government capacity, and in certain places strong informal and unregulated private provision, is relatively recent (Durham et al., 2015; Fujita et al., 2011; Miyake et al., 2017). While some have argued that these crises can provide opportunities to create new HRH policy trajectories (Fujita et al., 2011), recent reviews have been more cautious about state-building claims (Witter et al., 2015) or windows of opportunity for change (Witter et al., 2016). With health policy and systems researchers calling for the prioritization of HRH as a critical research area for fragile and conflict-affected states (Woodward et al., 2016), we hope for additional in-depth research that will enable rich contextualized understanding of the dynamic complexities of HRH in such settings.

While targeted violence against specific ethnic groups or nationalities is a feature of conflict and post-conflict settings, gender-based violence is experienced in all settings and largely victimizes women. Gender-based violence is particularly relevant to HRH given the predominantly feminized profile of the health workforce, particularly at lower levels (George, 2007; Newman, 2014). Prior research has indicated that female health workers not only experience higher rates of violence but also suffer greater physical and psychological harm from such violence (Di Martino, 2003). This reflects both their more vulnerable status in the health workforce and their internalized coping mechanisms due to the lack of effective public acknowledgement and redress (Chaudhuri, 2010; George, 2007).

Gender-based violence and harassment is one extreme form of the broader pervasive gender discrimination faced in the health workforce. While studies point to female physicians working fewer hours than their male counterparts, confounding variables related to physician age, family responsibilities, practice characteristics and patient profile are often not examined sufficiently (Hedden et al., 2014). In contrast, there is consensus that women are systematically paid less even in the same cadre (Tijdens et al., 2013; Vecchio et al., 2013). Women's gendered professional and personal needs are often not considered by policy-makers (Daniels et al., 2010), and multiple negotiations must be brokered within professionalized cadres (Nair, 2007; Wildschut and Gouws, 2013) or when embedded in communities (Mumtaz et al., 2013). More recent research uses an intersectionality lens, to understand how gendered discrimination is layered with social class and other social determinants (Jones et al. 2009; Tlaiss, 2013).

With regard to social class and income, while vocation is a key motivating factor for health workers, this does not discount the importance of remuneration and, for those at the lower levels of the health workforce, secure livelihoods (McCoy et al., 2008; Tijdens et al., 2013). Health worker pay and incentives, along with other factors, shape recruitment and retention in both the public and private sectors (Bertone and Witter, 2015). Pay and incentives also influence job satisfaction and motivation and therefore play a key role in supporting responsive care. Finally, when working in poorly regulated and dysfunctional services, low and unpredictable payment can be seen to justify informal fees and moonlighting (McCoy et al., 2008; Tijdens et al., 2013).

From a macro-level viewpoint, while aggregate health worker pay can dominate government health expenditure, particularly in low- and middle-income countries with low government health spending, at a global level it represents on average 34% of total health expenditure, is set to increase over time, and is rising faster than in other sectors (Hernandez-Peña et al., 2013). While wage ranking is relatively consistent at the extremes of the spectrum (typically with doctors at the top and care workers at the bottom), the wage ranking of nurses and midwives varies considerably by health system, as does the wage disparity between health cadres (Tijdens et al., 2013). In reviewing health workforce development in western Europe, Pavolini and Kuhlman (2016) note that despite an overall shortage of health workers and
increasing future demand, many basic- to middle-level health workers have flexible contracts, work part time or are looking to leave the sector. While the numbers of health workers are increasing, working conditions for those at lower levels are not improving. Furthermore, the heterogeneity of these changes across cadres and countries eludes neat categorization by health workforce theories aligned with the professions, the welfare state or labour markets (Pavolini and Kuhlmann, 2016).

In terms of understanding health labour markets, McPake et al. (2014a) provide a comprehensive review of the application of economic thinking to HRH, with insight on why they fail and how an understanding of market forces and social institutions can help guide government intervention. In understanding how social institutions structure economic exchanges (Ostrom, 2010), including those related to health workers, formal rules refer to regulations, policies and guidelines, while informal rules refer to social norms, unwritten codes of conduct, and shared strategies. From a top-down perspective, a government may put in place or respond to rules that determine the production (for example, relative to market exit through emigration, alternative careers or death) and overseeing (regulation and supervision to ensure performance) of health workers. From a bottom-up perspective, community norms and collective action may promote certain types of health service and determine the profile and behaviour of available health workers (George and Iyer, 2013; Sieverding et al., 2015). These top-down and bottom-up influences interact and, when they are not aligned, may lead to labour market failure (Abimbola et al., 2014). In making demand and supply decisions, health system actors (such as government officials, public- and private-sector players, and health workers and individuals who may demand and use their services) are confronted with information and motivation problems and influenced by geographical and socioeconomic contexts that may constrain or enable their choices and performance.

The structural, economic and social forces introduced above drive the movement of health workers across rural/urban, public/private or national/international boundaries of health systems. The phenomenon of internal and international migration has given rise to a body of research and practice aiming to understand why and how health workers move, whether and how this movement affects health systems and health outcomes, and how to manage the push and pull factors for health workers (Kroezen et al., 2015; Labonté, 2015). Internal migration can contribute to shortages of health workers and can exacerbate weaknesses in rural health systems and inequities in health-care access, particularly in underserved areas. Huicho et al. (2010) provide a helpful framework for conceptualizing internal migration and for evaluating interventions that aim to increase access to health workers in underserved communities. Others have estimated the cost-effectiveness of policy measures to retain workers in rural areas (Keuffel et al., 2016; Lagarde et al., 2012). At the global level, the past decade has seen the emergence of the World Health Organization (WHO, 2010) Global Code of Practice on the International Recruitment of Health Personnel, which aims to strengthen data on international recruitment and migration and to support strengthening local health systems to promote retention and research to document the early implementation of the Code (Tankwanchi et al., 2014; WHO, 2016).

Various disciplines can highlight the implicit assumptions underlying existing regulatory health workforce migration policies and their effects on health (Clemens, 2007). Using economic theory, Clemens (2014) challenges researchers and policy-makers to rethink the language used to label skilled migration and its effects, and how best to manage these, while ensuring skilled migrants have the opportunity and freedom to work abroad. He argues for moving beyond coercive taxes and quotas or recruitment bans and to think about who bears the cost for skilled training and reforming the education system. His findings indicate the importance of undertaking research that addresses the multisectoral determinants of health worker migration, and research that critically examines our assumptions about the pathways through which health worker migration policies are intended to work.
2.3 Illustrative primary research articles

We present eight primary research articles that build on this background to showcase how social relations and contexts influence health workers. These articles were selected from a pool collated from a doctoral seminar at the Johns Hopkins School of Public Health, a crowdsourcing exercise supported by Health Systems Global and subsequent searches using the bibliography of key articles and on relevant databases and search engines (PubMed, Google Scholar). The main criteria used to select the articles included diversity in region, cadre and methods, and the quality and innovativeness of the studies.

In highlighting the social agency of health workers and their embeddedness in broader social relations and systems, we selected articles that review their resilience through conflict in Uganda (Namakula and Witter, 2014) and the context of gender-based violence in the health workforce in Rwanda (Newman et al., 2011). We then review how labour markets and their dynamics impact on the livelihoods of health workers, through the exclusion of volunteers in Ethiopia struggling with survival (Maes et al., 2011), the multiple strategies pursued by primary health-care workers in the Democratic Republic of the Congo to secure adequate incomes (Maini et al., 2017), the drivers of dual practice in Mozambique, Guinea-Bissau and Cabo Verde (McPake et al., 2014b), and how dual practice influences physician location in Viet Nam (Vujicic et al., 2011). The last set of articles highlights innovative approaches to understanding the drivers of migration through the experience of health workers emigrating from Ireland (Humphries et al., 2015) and the social connectedness of rural auxiliary nurse midwives in Mali (Hurley et al., 2014).

2.3.1 Violence as a structural and gendered driver of inequality


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<th>Health workers</th>
<th>Public and private sector health workers</th>
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<td>Geographical area</td>
<td>Uganda</td>
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<tr>
<td>Research methods</td>
<td>Qualitative: Life histories</td>
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<td>Research inference</td>
<td>Exploratory/Emancipatory</td>
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Namakula and Witter (2014) use life histories to understand why Ugandan health workers stayed on during Uganda’s 20-year conflict and how they coped during and after the conflict. This article showcases the powerful potential of participatory methodology, wherein the interview involved asking health workers to draw a line representing their lives and then indicating and discussing important life decisions and events along it. Life histories enabled the researchers and health workers to reflect on important experiences, including traumatic incidents during the conflict, in a sensitive, participant-led manner and created space for health workers to identify and claim their agency and resilience. In gaining deep understanding of health worker experiences, coping mechanisms, frustrations and incentives, this study generates insight into policy levers that could support health worker motivation and retention in post-conflict settings. For instance, the authors note that being from the region in which one served was an important retention factor, as was loyalty to one’s first facility and opportunities for incremental career advancement through in-service training. Equally important, this work takes seriously the actor-centred ethos of HPSR, wherein health workers are seen not only as technical inputs to the delivery of care but also as human beings in their own right, whose perspectives and dignity are valued as an end in themselves and as an integral part of a responsive health system. Further reflections on the use of life histories as a methodology within post-conflict and crisis settings are elucidated by Witter et al. (2017).

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<th>Health workers</th>
<th>Multiple public and private sector facility health workers</th>
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<tr>
<td>Geographical area</td>
<td>Rwanda</td>
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<tr>
<td>Research methods</td>
<td>Mixed: provider survey, facility audits, key informant interviews, in-depth interviews, focus group discussions, stakeholder engagement</td>
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<td>Research inference</td>
<td>Descriptive</td>
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Newman et al. (2011) combined a range of methods to explore the link between workplace violence and gender among health workers in Rwanda. Qualitative formative research (interviews with policy-makers, a focus group with health personnel, and a review of national labour and gender policies) enabled the researchers to develop culturally appropriate descriptions of workplace violence and gender discrimination. These phenomena were then examined through a health worker survey, key informant and facility manager interviews, and facility audits. Newman et al. found that violence was experienced by 39% of the health workers sampled, with similar rates of verbal abuse, bullying and physical violence among men and women, and higher rates of sexual violence among women. Gender inequality at work (unequal treatment and unequal access to jobs) was associated with increased odds of workplace violence. Gender-based violence at work emerged as one component of wider gender discrimination that reduces women’s employment opportunities, penalizes them for their biological reproductive role, and limits their economic freedoms.

Newman et al.’s research dissemination was informed by utilization-focused evaluation (Patton, 1997). This involved wide consultation with government and civil society to identify what information about workplace violence and gender would be most valuable to inform decisions and improve conditions for health workers. The article presents an analysis of changes to workforce policy arising from the research. This attention to policy impact and stakeholder engagement, in addition to the authors’ mixed-methods examination of gender and workplace violence, is what makes Newman et al.’s (2011) research stand out as exemplary HPSR.

While violence in the health workforce and its gendered dimensions have been noted earlier (Di Martino, 2003; George, 2007), further research has been limited, despite ongoing incidences of rape and murder of female health workers, for example as reported by the press in India (Gangotri et al., 2016). While there is increasing recognition of the risk of workplace violence for health workers in emergency departments (Hamdan and Abu Hamra, 2015; Mirza et al., 2012), this research is largely descriptive and, although disaggregating by sex, does not apply a deeper gender lens. The research by Kim and Motsei (2002) remains a landmark study in detailing the gendered lived experience of nurses in South Africa and how violence normalized in their personal lives must be recognized before they can be expected to respond to other victims without replicating conservative gender ideologies.
2.3.2 Labour markets: economic livelihoods and dynamics


Maes et al. (2011) combine longitudinal ethnography and cross-sectional survey methods to examine the sustainability and human rights implications of health worker volunteerism in the context of urban food insecurity and scale-up of treatment for human immunodeficiency virus (HIV). The ethnographic methods involved 20 months of participant observation, focus group discussions and interviews with a sample of 13 volunteer carers, who the authors re-interviewed up to 7 times to explore themes of carer motivation, food insecurity, relationships, costs and benefits, and well-being. In addition, a sample of carers was surveyed to gather demographic and household data and to assess food insecurity using the validated Household Food Insecurity Access Scale. Following a mixed-methods design, the survey questions and analysis were informed by the ethnographic work, which suggested that the role of the volunteers in the household food economy was an important factor in household food access.

The study links high rates of chronic food insecurity among volunteer carers with their distress, demotivation and changing demographics. Despite a strong desire to serve, volunteer carers described internal ambivalence about volunteering when they could not access enough food for their families and increasingly strained relationships within their households. Moreover, food insecurity impaired care relationships that were already fraught because of HIV-related stigmatization, since volunteers could not address patient needs for food to support adherence to antiretroviral treatment. Newer volunteers tended to be younger people who could not find paid work and who lived as dependents in higher-income households, suggesting that these marginally better-off families were broadly subsidizing HIV care. This paper is exemplary in its use of mixed-methods, attention to an often undervalued and overlooked cadre of health workers, and analysis of how structural forces affect the capacity and livelihoods of volunteers and the sustainability of health programmes.


Another approach to understanding health worker livelihoods is illustrated by Maini et al. (2017), who studied the different sources of income for primary health-care workers in the Democratic Republic of the Congo, where poor remuneration of public sector health workers encourages a diversification of income sources. The authors used regression models to examine the determinants of income source and level, and used qualitative data to explore the perception of health workers on each income source. With less than a third of health workers...
receiving government salary, which even when received was often irregular and insufficient, most health workers sought income from “private” sources such as user fees, gifts, informal payments, private clinical practice, non-clinical activities, per diems, and performance payments from nongovernmental organizations implementing externally financed health programmes. Contextual factors such as provincial location, presence of externally funded programmes and local user fee policy also influenced the extent to which nurses received many income sources. Notably, this study used mixed-methods to explore how adaptations within local health care markets, in the form of health worker remuneration, partially and suboptimally fill the space left by the lack of governance institutions to ensure the reliable provision of public goods.


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<th>Health workers</th>
<th>Public and private sector physicians</th>
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<tr>
<td>Geographical area</td>
<td>Mozambique, Guinea-Bissau, Cabo Verde</td>
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<tr>
<td>Research methods</td>
<td>Quantitative: two-stage estimation model with propensity score-matching</td>
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Another market-driven adaptation to insufficient levels of health worker remuneration is the blurring of the public and private sectors as health workers engage in dual practice. McPake et al. (2014b) used regression models to identify predictors of doctors choosing to engage in dual practice and, for those who do so, to identify predictors of how doctors choose to allocate their time between the public and private sectors in three Portuguese-speaking African countries: Mozambique, Guinea-Bissau and Cabo Verde. They found that higher hourly wages in the private sector, greater number of dependents, competing priorities that limit the number of hours physicians are able to devote to work, working outside the city and higher level of demand for private services were associated with increased likelihood of a physician engaging in dual practice and increased allocation of time to the private sector. In this rare quantitative exploration of the processes involved in dual practice, McPake et al. (2014b) examined the economic theory that suggests that by restricting supply in the public sector, health workers can increase demand and price in the private sector; however, the limited ability to pay for private-sector services in the studied populations constrains health workers’ ability to migrate entirely to the private sector.

While the level of public-sector salaries was not associated with dual practice in McPake et al.’s (2014b) study, another study by the same group in the same three countries found that it was the institutions governing health markets in these countries that significantly shape the patterns of dual practice (Russo et al., 2014). In Cabo Verde, where rules exist to govern dual practice and the rules are monitored and enforced, the public characteristics of public services are protected, forcing private activity to the private sector, where it is formally regulated and recognized as dual practice. In Guinea-Bissau, where such rules do not exist, physicians offer private services within public facilities, where they may escape regulation altogether. In Mozambique, where the rules are both “patchy” and “patchily” applied, there is a mix of both regulated and unregulated private services within public facilities, and poorly regulated high-cost services in private facilities (p. 780). As in the study by McPake et al. (2014b), Russo et al. (2014) highlighted the role of bottom-up market forces in shaping dual practice, albeit in the form of low demand due to limited ability to pay, which limits the viability of standalone private facilities, leading to the delivery of private services in the public sector.

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<th>Health workers</th>
<th>Physicians</th>
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<td>Geographical area</td>
<td>Viet Nam</td>
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<td>Research methods</td>
<td>Quantitative: discrete choice experiments based on a labour market survey</td>
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<td>Research inference</td>
<td>Descriptive</td>
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Integrating a discrete choice experiment within a labour market survey, Vujicic et al. (2011) explored how geography and the potential for dual practice influence health worker labour market dynamics in Viet Nam. In a random sample of physicians in three regions in Viet Nam, they found that dual practice is prominent, as 35% of physicians hold a second job, and that the significant wage premium associated with working in an urban area is driven by much higher earnings from dual practice (on average, 90% of official income) rather than official earnings in the primary job. In addition, physicians working in higher-level health facilities located in urban areas earn significantly higher official income (up to 71% higher) than those working in rural primary health-care facilities. There is a counterintuitive market behaviour in the pattern of mobility, however: few physicians move across facility levels (primary, secondary or tertiary) and geographical areas (rural or urban), and few physicians change jobs more than once during their career; when job movements do occur, they tend to be within the same geographical setting and the same level of facility. Notably, this study incorporates discrete choice experiments, an innovative method that provided a quantitative estimate of the relative value physicians place on different job attributes. The experiments showed that physicians from rural areas and low-income families are more willing to work in rural areas, and that creating opportunities for long-term education and improving equipment are the most effective strategies to recruit physicians to rural areas. These findings show again that markets are shaped by institutional, geographical and socioeconomic contexts.

2.3.3 Social drivers of migration and retention

Humphries N, et al. (2015). “Emigration is a matter of self-preservation. The working conditions ... are killing us slowly”: qualitative insights into health professional emigration from Ireland. Hum Resour Health. 13(1):35

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<th>Health workers</th>
<th>Emigrant physicians, nurses, midwives</th>
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<tr>
<td>Geographical area</td>
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<td>Research methods</td>
<td>Mixed: online survey through social media</td>
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Staff retention remains at the core of attaining a sustainable health workforce in high-, middle- and low-income contexts alike. Humphries et al. (2015) explored the perspectives of emigrant health professionals from Ireland, innovatively using social media as a platform for data collection on this topic. The authors targeted emigrant health professionals, who, like other emigrants, are a difficult-to-reach group because there is no representative sampling frame to draw from. Through Facebook, the authors drew from a diverse convenience sample of doctors, nurses and a few midwives to elicit responses to an online survey.

Unlike other articles on migration in high-income settings, the focus of this article is on Ireland, the source country, rather than on the health professionals’ destinations. Based on the analysis
of responses to open-ended questions, the authors found two main drivers for emigration: unsatisfactory working conditions, such as long hours, and a perceived lack of respect for health professionals within the Irish health-care system. While many expressed a desire to return for personal reasons, the unsatisfactory working conditions persisted as an important disincentive. The authors emphasize that health system and retention reforms must be responsive to the perspective of health professionals who have emigrated, and that country health workforce planners must base their decisions on more comprehensive, updated routine data.

On a topic where a representative sampling frame is more often than not impossible to obtain, the authors presented an important example of how to use social media to reach emigrants. Furthermore, while social media has been used by researchers before - for example, to understand how health workers network with one another (Rolls et al., 2016) or to understand how to enhance career development opportunities (Roman, 2014) - this is one of the very few times that social media has been used as a data collection avenue for health workforce research. An article based on the same survey and reporting quantitative data is recommended as further reading (McAleese et al., 2016).


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<th>Health workers</th>
<th>Rural auxiliary midwives</th>
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<tr>
<td>Geographical area</td>
<td>Mali</td>
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<tr>
<td>Research methods</td>
<td>Mixed: semi-structured interviews and social network case studies with midwives and village women</td>
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<td>Research inference</td>
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Much work has been done to understand the factors and strategies that promote the retention of health workers, particularly in rural and difficult areas (Dolea et al., 2010). Hurley et al. (2014) present an interesting analysis on the social role of rural health practitioners, in this case rural auxiliary midwives, who represent the main providers of maternal and neonatal health services in Malian communities. Poor social relationships and working environments contribute to workforce turnover and dissatisfaction. Understanding connectedness would shed light on how to better target support to improve retention, job satisfaction, motivation and efficacy. In Mali, half of the midwives are not originally from the communities they serve but are from urban communities and move to rural areas seeking work. The authors attempt to highlight entry points to support such health professionals better and to understand how they are integrated and supported in their working environment within a community. The authors found that rural auxiliary midwives held central and influential social positions, regardless of whether they were originally from that community. These findings have implications for planning maternal and child health interventions and more broadly about the type of support that would be needed to ensure a strong health workforce in rural areas. Midwives effectively create provider-patient bridges, through which behavioural health interventions could be diffused to mothers. Furthermore, well-connected midwives could draw additional health workers to support maternal and health services.

On a topic where neither qualitative nor quantitative methods alone can adequately explain the drivers of migration and retention, this article provides an important example of how qualitative research and social network analyses can be used to obtain a richer picture of a context and to try to understand the social capital, social fabric, connectedness and belonging to a community that may influence rural retention. Nevertheless, this article is one of the few using social network theory and analysis to better understand health workforce behaviour. Existing network studies in health most often focus primarily on physicians or nurses in high-income settings (Bae et al., 2017a, 2017b; Yousefi Nooraie et al., 2017).
2.4 Research challenges, gaps and future directions

2.4.1 Better data

Despite the importance of social dimensions of health workers, numerous data gaps exist, limiting our ability to understand HRH social relations and contexts. Humanitarian crises settings challenge data collection in multiple ways, including non-existent or unconventional sampling frames, difficult data collection logistics, rapid change and weakened research capacity (Woodward et al., 2017). With respect to gender, data on health workers is more likely to be reported by cadre than by sex, eliding the possibility of a gender analysis (George, 2007). Moreover, certain gendered experiences such as sexual harassment and gender-based violence within HRH may remain invisible due to social norms that inhibit reporting. With regard to labour markets, as McPake et al. (2014a) highlighted, analyses are limited by the lack of data, for example on formal and informal earnings or income of health workers within and across countries. Previous efforts to estimate the income of health workers across countries include those of Hernandez-Peña et al. (2013), McCoy et al. (2008) and Tijdens et al. (2013). For McPake et al. (2014a, p. 78), improved datasets will help “move beyond counting the health workforce and some of its basic characteristics, to understanding the determinants and solutions to labour market disequilibrium”. With regard to migration, difficulty in tracking health workers across borders makes migration and mobility a difficult phenomenon to understand. Information about annual outflows of health providers, especially of non-physician staff, remains unreliable in both high- and low-income settings, limiting our understanding of the impact migration might have on source and destination health systems and populations (WHO, 2014).

Not only is further research required about the social characteristics of health workers, as highlighted above, but certain national and subnational contexts are underrepresented, failing to reflect the diversity of national and subnational contexts in low- and middle-income countries. For example, labour market analyses can inform not only national but also subnational plans and policies. Tools already exist to conduct these studies, including guidelines, case studies and software (e.g. Dal Poz et al., 2007; Fields and Andalon, 2008; Scheffler et al., 2012; WHO, 2015), but they have yet to be used at the subnational level or at the national level beyond demonstration case studies.

Comparative research across health systems contexts in low- and middle-income countries should also be encouraged. For example, discrete choice experiments can help policy-makers understand how health workers value different job attributes, but the findings of such studies vary widely, depending on context. Further research and comparative analysis could better account for how each country’s unique contexts, policies and systems shape the preferences and challenges unique to various cadres of health worker.

2.4.2 Further depth

Another challenge is the overly descriptive nature of existing research, with poor reference to social theories and little use of multidisciplinary research. For example, despite the existence of landmark reviews (George, 2007; Standing, 1997), research examining gendered dimensions of HRH rarely builds on previous research and theory, failing to capture the richness of lived experience. Our research also needs to go beyond surface descriptions to understand why and how social relations and market forces influence health workers. Such evaluations require theory-informed multidisciplinary collaborations that bridge both qualitative and quantitative approaches to better understand the dynamics of health worker behaviour within local healthcare markets and their movements within and outside countries.
We also need further depth in our analysis of how multiple social and market forces and their contextual determinants (such as class, gender, formal and informal institutions, internal and external migration, remuneration, geography, motivation, and information and power asymmetry) combine and interact in different ways to influence the profile and performance of health workers in diverse settings. Indeed, given that these social and market forces, and their determinants, are all connected, analytical approaches such as intersectionality that ensure they are not examined separately from one another need further application (Larson et al., 2016).

2.4.3 Further innovation

Researchers in HPSR can contribute methodologically through novel ways of producing and accessing information. For example, the use of social media and technology should be explored further in studies on migrating health professionals, as should engagement and mobilization of the diaspora. Social network theory and analysis could contribute further to understanding the dynamics of the formal and informal networks formed by health professionals locally and internationally. Furthermore, available data can be used better, for example by developing and using dynamic models for health workforce planning that could help decision-makers better understand the pathways through which migration and retention factors are related. Simulation models focusing on exploring health worker dynamics could be particularly useful in cases where there are limited data.

Moving from methods to broader philosophies and social relations underpinning research, feminist and participatory action research methodologies should be encouraged to express and understand health worker voices and to transform the social relations framing health worker agency. Central to these approaches are efforts to build capacity, foster trust and address the power relations between various stakeholders engaged with HRH research. These issues of research governance are relevant to all settings but are particularly important in humanitarian crises settings (Woodward et al., 2017).

Acknowledgements

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Part A. Who are included as health workers, where and how?


