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Strengthening health system resilience – what role for migrants and migration policies?

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Catastrophic events occurring over the last decade or so have highlighted the need to understand how to govern health systems in the face of shocks. In high-income countries this was triggered by the economic crisis from 2008 and in low and middle-income countries by the sudden outbreaks of infectious diseases, like Ebola, as well as civil conflicts, with catastrophic consequences (Barasa, Mbau et al. 2018). Most recently, the emergence and rapid spread of COVID-19 has severely tested almost all health systems around the world (Bozorgmehr, Saint et al. 2020). National responses have varied greatly, with some countries being more successful than others in containing the transmission and preventing deaths. Nevertheless, health systems in many countries have found themselves struggling to cope with the exponentially accelerating number of cases through different waves, while health systems in other countries have also come under enormous pressure (Sagan, Thomas et al. 2020).

The concept of health system resilience is important to understand, as a means to navigate our way through the current and future shocks (Thomas, Sagan et al. 2020). With the increasing frequency of extreme climate events, mass migration, economic crises and pandemics we may have to get used to 'acute' shocks to the health system. Acute shocks differ from chronic problems, which are described in the literature as everyday strains facing health systems such as ageing or increasing multimorbidity. While the two are often confused, acute shocks have a fast onset and high immediate impact but limited duration (Biddle, Wahedi et al. 2020, Thomas, Sagan et al. 2020) and therefore need a different response. We restrict our analysis in this paper to handling of acute shocks given the pressing need.

Furthermore it is vital to highlight the role that the workforce plays in building resilience and strengthening

health systems before, during and after shocks (Williams, Scarpetti et al. 2020). In particular our specific focus in this paper is to review the role of migrant labour and what part it might play in enhancing health system resilience. In this article we will investigate what is health system resilience to shocks, what strategies can build resilience, the central role of workforce in resilience and whether migrant labour makes health systems more resilient or more vulnerable. We conclude with suggestions for future research and policy action.

Health system resilience

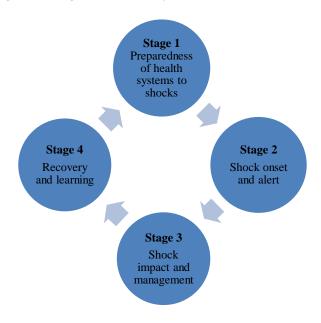
Fundamental to the idea of health system resilience is the notion of bouncing back from a shock or perhaps even ideally moving through it to strengthened health system performance. Yet resilience is more than just reacting to an event. Health system resilience can be best understood as the ability to prepare for, manage and learn from shocks (Thomas, Sagan et al. 2020). Resilient health systems are those that are able to manage well each stage of the shock cycle (see Figure 1). They must be: (1) well prepared for different shocks; (2) able to quickly identify when a shock starts and how it is affecting the system; (3) able to absorb the shock and, where necessary, adapt and transform the system to ensure that health system goals are still achieved; and, finally, once the shock has passed they are (4) able to identify the legacy of the shock in relation to health system performance and remedy any negative consequences.

While preparedness is helpful and can mean that systems are quick to respond, it does not guarantee a good outcome. Some of the allegedly best-prepared health systems for the COVID-19 pandemic, such as the USA and UK (https://www.ghsindex.org/), were found wanting. At the same time countries that were less well prepared, like New Zealand and Costa Rica, were able to

respond to the problem relatively well with speedy and effective governance, limiting the impact of the shock.

As noted, in today's global context extreme shocks are becoming more common (extreme weather events, epidemics, mass migration, economic crises). The nature of the required strategic response will be determined by the type and severity of the shock. Intuitively, the more severe the crisis the more resilience is required to deal with it.

Figure 1: Stages of a shock cycle



Source: Thomas et al. (2020)

Shocks can also be differentiated into those that primarily affect the demand side of the health system (e.g. increased need for health care following epidemics) and those that primarily or initially affect the supply side (e.g. economic crises and reduced resources). One pronounced feature of the current pandemic is that it has both pronounced demand and supply side effects (Sagan, Thomas et al. 2020). In common with other epidemics, there is a reduction in the ability to cope with all needs. First health professionals are themselves impacted by the epidemic. Second the need for focusing on the response to the epidemic may crowd out existing health care problems which may create or exacerbate unmet need. However COVID-19 also has the hallmarks of an economic crisis in that its creates adverse economic conditions such as a reduction in income, indebtedness or unemployment which themselves result in poorer population health (Karanikolos, Mladovsky et al. 2013). At the same time governments may find themselves with fewer resources and less able to supply health care when required, even offloading some costs onto households to manage their own budgets or reducing the state-funded basket of care.

Strategies to build resilience

In the face of shocks, it is important to highlight key strategies to build health system resilience throughout the shock cycle. As part of the European Observatory policy brief on Strengthening Health System Resilience, the authors conducted a rapid review of the literature examining the strategies and metrics used to build or evaluate resilience across all countries and all shocks in the last ten years (Thomas, Sagan et al. 2020). The review utilised sixteen peer review articles and nine reports in the grey literature. Thirteen strategies were identified to be deployed at different stages of the shock cycle. These strategies can be categorised according to WHO health system functions of governance, financing, resource deployment, and service delivery. They are highlighted below.

- Governance: (1) Effective and participatory leadership with strong vision and communication; (2) Coordination of activities across government and key stakeholders; (3) Organisational learning culture that is responsive to crises; (4) Effective information systems and flows; and (5) Surveillance enabling timely detection of shocks and their impact.
- **Financing**: (6) Ensuring sufficient monetary resources in the system and flexibility to reallocate and inject extra funds; (7) Ensuring stability of health system funding through countercyclical health financing mechanisms and reserves; (8) Purchasing flexibility and reallocation of funding to meet changing needs; and (9) Comprehensive health coverage.
- **Resources**: (10) Appropriate level and distribution of human and physical resources; (11) Ability to increase capacity to cope with a sudden surge in demand; and (12) Motivated and well-supported workforce.
- **Service delivery**: (13) Alternative and flexible approaches to deliver care.

From this list, and in particular in relation to the "resources" strategies, it is possible to identify three key

themes that relate to the health care workforce and resilience building. These themes are sufficiency, flexibility, and motivation or engagement.

With respect to **sufficiency**, given the imbalance between the demand for and supply of health care, there will always be a challenge to provide enough health care workers of the right cadre, in the right locations, delivering the most appropriate care. As was argued earlier this will not only apply in relation to shock-specific needs, such as in a pandemic, but also to the normal burden of disease faced by a population which might otherwise be crowded out. Hence in the current pandemic context we need to allow for sufficient human resources both to bolster surge capacity (Williams, Maier et al. 2020) and to deal with other urgent and routine care in acute and non-acute settings (Jakab, Nathan et al. 2020, Panteli 2020, Webb, Hernández-Ouevedo et al. 2020).

One important aspect of resilience is adapting to new conditions and frequently changing the way services are delivered or organised (Thomas 2013). This **flexibility** is required to respond quickly and appropriately to the new conditions. This may take several forms and seems to relate both to the redeployment of staff and an inherent capacity of staff to innovate and deal with change to practice or role. The rapid adoption of telemedicine by many General Practitioners and other health professionals would appear to be a key adaptation during the current COVID-19 pandemic (Richardson, Aissat et al. 2020). Furthermore the redeployment of staff to building up test and trace capacities is an important example of adaptability with health systems and realignment of workforce skills and roles (Kennelly, O'Callaghan et al. 2020).

Finally the **motivation and engagement** of health care staff is not something that can be taken for granted even in normal times. It has profound effects on the quality of care (Edward, Kumar et al. 2012, Alhassan, Spieker et al. 2013) and the ability to retain experienced and well-qualified staff (Abimbola, Baatiema et al. 2019, Lagarde, Huicho et al. 2019). Such concerns are only compounded for a health system experiencing a shock (Thomas, Sagan et al. 2020). The economic crisis caused health workforce salaries to decline, retrenchment of staff and a lack of investment in infrastructure and equipment, leading to overworked and demotivated staff (Williams and Thomas 2017). Yet during a pandemic the health workforce faces further burdens including the risk of infection, the necessity of

self-isolation alongside actual infection, ill-health and death of health workers. Consequently the well-being of the health workforce, including their mental health, must be a key concern (Zaka, Shamloo et al. 2020). Nevertheless, the ability of a health system to keep going during a prolonged shock is thus highly dependent on the motivation of staff (Muller, Hafstad et al. 2020).

Furthermore, there is no silver bullet for improving motivation and engagement. It is typically related to a complex package of interventions ranging from salary and conditions, a supportive and well-resourced working environment, to training opportunities, appreciation and effective management (Williams and Thomas 2017).

The importance of migrant labour for building resilience

One of the most concerning features for international health systems is the global shortage in the health care workforce. This increased from a shortage of 4.3 million health professionals in 2006 to 7.2 million in 2014 (World Health Organization 2008, World Health Organization 2014). Furthermore, there is a profound imbalance, with Low and Middle Income countries (LMIC) containing two-thirds of the world's population and possessing only a quarter of the world's physicians (World Health Organization 2014). This physician shortage exacerbated by physician brain drain, with some highincome countries (HIC) drawing substantial proportions of their health workforce from LMICs (Mullan 2005). Indeed, the failure of many high-income countries to train sufficient numbers of their own health workers has led to them importing health professionals from other countries, many of which can least afford that loss (World Health Organization 2014, Short, Marcus et al. 2016).

In Europe the degree of dependency of health systems on migrant health professionals has been very high, particularly in relation to foreign-born doctors, with the highest levels seen in Ireland (35.3%) followed by the UK (33.7%), Luxembourg (30.2%) and Switzerland (28.1%). A similar, albeit proportionally reduced, pattern also emerges for foreign-born nurses in many European countries (Aluttis, Bishaw et al. 2014)

The laudable 'Global Code of Practice on the International Recruitment of Health Personnel' is a legal instrument intended to serve as a policy framework for addressing the health workforce crisis at a global scale. However the

Code is widely recognised to have many weaknesses including its voluntary nature, lack of incentives, lack of institutional mechanisms of enforcement and lack of data to monitor progress. This means that is has largely been ineffective in producing change (Aluttis, Bishaw et al. 2014, Tam, Edge et al. 2016). In order to advance the debate, Brugha and Crowe (2015) suggest examining the root causes and system drivers of health professional migration by bringing together ethics, culture and health systems analyses from both source and destination countries. In the meantime, the emigration of health care professionals from LMIC may even increase in the coming years as push and pull factors continue to combine to make emigration to HIC attractive (Guimarães and Freire 2007). Given the enduring reality of migration it is important to evaluate whether it can build health system resilience. In particular we will assess how migrant labour is being utilised to building sufficiency, flexibility and motivation in the health workforce.

Sufficiency

In response to the COVID-19 crisis, one strategy used by some EU countries to increase the available workforce, has been to utilise foreign-trained doctors. In Germany, for example, an estimated 14,000 foreign-trained physicians were awaiting recognition of their medical qualifications many of whom were refugees who arrived in 2015. A number of initiatives were launched allowing these professionals to be hired temporarily as 'medical assistants.' Many countries also permitted visas or working permits to be automatically extended and registration fees for foreign trained doctors were waived (Williams, Maier et al. 2020). While this may address issues of sufficiency in destination countries, there may be an exploitative element, which may produce de-skilled and demotivated staff who might then migrate again.

With a global shortage of healthcare workers, for many countries migration of their scarce health professionals will only undermine resilience. This is the case particularly in rural areas within low and middle-income countries. Many studies have looked at retention issues and how to make rural and remote areas more appealing for healthcare staff both for locating and remaining there (Short, Marcus et al. 2016). Goel, Angeli et al. (2016) examined healthcare staff retention in rural and underserved areas within India. India has a very large rural population (68.8%) and inequity and maldistribution of healthcare staff exists across the urban-rural divide. They

recommended numerous interventions including locating medical schools within rural communities to prevent loss to migration.

Mabunda, Angell et al. (2020) discuss how retention issues need to be addressed in Sub-Saharan Africa to ensure that critical resources are not diverted, such as the training of staff who ultimately emigrate to higher income countries. They review 'return-of-service schemes', which award study scholarships or bursaries to students in return for their commitment to serve government on a year-for-year reciprocal contract post qualification. However the authors argue that there has been insufficient monitoring and evaluation of such schemes, as well as poor design and implementation.

Flexibility

During the COVID-19 crisis, in an act of solidarity, many EU countries sent healthcare workers to countries in need, for example to Italy during the first wave of the pandemic. A European Civil Protection mechanism has been set up by the EU to enable sharing of resources among Member States in response to emergencies (Williams, Maier et al. 2020).

In low and middle-income countries redistribution of healthcare staff has been used in response to emergencies. Mashange, Martineau et al. (2019) examined how flexibility of deployment was used in Zimbabwe during the economic crisis (1997-2008), and how this contributed to retention of healthcare staff in key areas. Strategies included reducing the time of compulsory service that new graduates had to adhere to, while allowing transfers to different areas in order to retain staff. Ayiasi, Rutebemberwa et al. (2019) looked at deployment policies used during the armed conflict in Uganda (1986-2006). They found that smaller organisations could give local managers more autonomy to adapt deployment policies appropriately to need. Policy did not change during the conflict, and formal policy was only established after the conflict.

Motivation/Engagement

Pull factors for migrant health professionals include both active and passive recruitment by high-income countries, job vacancies in high-income countries with concomitant high salaries, better working conditions and facilities, and better access to higher training and continuing professional development (Buchan and Dovlo 2004, Dovlo 2004, Hagopian, Ofosu et al. 2005, Klein, Hofmeister et al. 2009).

Yet it is often unclear whether such expectations are realised. Cultural attitudes, language barriers, racial prejudices and preconceptions towards the quality of care provided by foreign medical graduates are some of the obstacles that physicians face when they migrate (Wright, Flis et al. 2008).

Furthermore, a phenomenon of 'brain waste' has emerged, where migrant health professionals become de-skilled over time because they either apply for jobs requiring lower levels of skill or they are placed in positions with limited opportunities for progression (Humphries, Tyrrell et al. 2013). Over time, this can lead to demoralised and demotivated staff that can very easily move to countries who are perceived to offer better conditions - leaving highly dependent destination countries particularly vulnerable to this 'carousel effect' (Bundred and Levitt 2000. Yow, Garces-Ozanne et al. 2015). Of course, both source and destination countries face similar retention issues for medical professionals, despite significant increases in training opportunities. The globalisation of healthcare, and the promise of better working conditions, training structures, not to mention a more acceptable work-life balance leads to a multifaceted vulnerability in terms of health system resilience (Humphries, Crowe et al. 2018).

Concluding thoughts

The question of whether health system resilience can be bolstered by migration is nuanced. The high degree of dependence of many countries on foreign health professionals can both build and undermine resilience and much of this may depend on the way in which that migration happens. This is true for both the source and destination countries, with source countries often more vulnerable.

Hence there should be renewed pressure on governments and particularly those in destination countries to set good policies and to manage migration in a constructive way. Not only is this necessary for health system resilience at a national or global level, it is fundamental that migrant health workers are also shown due respect. As a key benefactor of current health workforce migration policies and practice, high-income country governments who rely

on health worker migration need to adopt formal agreements and be held accountable to same. Failure to do this may only undermine current and future efforts to manage health systems through shocks. Our health system resilience is interdependent, a fact which is acutely highlighted by the current pandemic.

The research agenda in this field is potentially broad. One key theme could be evaluating the sufficiency, flexibility and motivation of workforces locally, nationally and globally. Another research theme might assess the link between migration and health system performance and outcomes during the current pandemic. Another focus might be the individual burden of migrant health professionals within a crisis and the additional problems that they might face in a variety of contexts. The health workforce is the key resource in a health sector. Migration is set to continue to be an important source of supply of health workers for many countries. With the increasing global prevalence of shocks, research around health system resilience and health worker migration will be a vital source of evidence and analysis for policy makers worldwide.

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