Health systems during and after crisis: evidence for better policy and practice | Brief 1

Resilience of health systems during and after crises – what does it mean and how can it be enhanced?

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The concept of 'resilience' is a recent addition to health systems policy and research. Over the past five years the concept has become ubiquitous and even featured in the theme of the Fourth Global Symposium on Health Systems Research: 'resilient and responsive health systems for a changing world'.[1] Yet it is an ambiguous term and its meaning is contested within the discipline.[2] This policy brief summarises different aspects of health system resilience, its measurement, and strategies for enhancing resilience during and after crises.

What does resilience mean in relation to health systems? Is it always positive?

Resilience has long been used in psychosocial analyses of the mental health of individuals.[3, 4] It has recently become commonplace to analyse health systems in terms of resilience, with a particular focus on the importance of preparing for and responding to health crises in order to protect health (see figure 1).[5, 6, 7] When used in this way, resilience reflects the capacity of health systems to react to acute external shocks.[8] It is similar to the concept of 'health systems strengthening',[9] although that places more emphasis than resilience on improving system performance.[10]

The recent growth in use of language of health system resilience paralleled the 2014-16 Ebola outbreak in West Africa and much of the resilience literature has focused on that outbreak.[5, 11, 12] Other examples include the 2007/8 economic crisis in Ireland,[13] insurgency in northern Nigeria,[14] terrorism in Burkina Faso,[15] and the effects of Syrian refugee influx in Lebanon.[16]

A related understanding proposes resilience as a mechanism through which health systems 'absorb' changes in the social and political environment while preserving identity and function.[13] One such framework defines resilience as 'the process of harnessing biological, psychosocial, structural, [environmental] and cultural resources to sustain wellbeing.[17] This is a broader interpretation that could be used

Key messages

- Resilience has been much-used in recent years as a positive attribute of individuals, organisations and systems, but should be seen as more nuanced; it focuses on the ability to cope with change, which is a valuable quality but not synonymous with strong systems.

- Equally, research on health staff resilience has particularly focussed on ability to continue operating in challenging environments, without revealing other important aspects such as quality of care provided, and the cost to individual staff of continuing in sub optimal working and community environments.

- Resilience is commonly associated with responses to acute shocks but it is equally – if not more – important to manage chronic challenges, which links to literature on other important attributes of health systems, such as adaptability, learning systems and responsiveness.

- Tools for measuring resilience are progressing; they include the effect of crises on health outcomes, uptake of healthcare services and risky coping behaviours.

- Some early lessons are emerging about how to boost resilience, including to:

  i.   Build stocks, not just of 'hardware', such as drugs, but also 'software' in the form of trust and competencies

  ii. Develop devolved capacity

  iii. Develop parallel systems to cope with specific blockages.

to support planning for longer-term health challenges, for example health systems resilience in relation to climate change.[18] Indeed the concept of resilience has a much longer history of usage in this way in climate science.[19]

Greater resilience in health systems is important, however it should not be pursued in isolation. Health systems can be resilient yet still provide poor quality or limited services and so there remains a need to improve outcomes.[10] Further, there is a risk that the term is applied too narrowly to focus on preparedness against acute external threats. Health systems are subject to a myriad of social and political changes, both domestic and international, and to date many important changes have not been identified as challenges that could be mitigated against by improving the resilience of health systems. These include aging populations and changes in diet and physical activity.

The growing attention to health system resilience must take account of the many varied changes taking place in health systems globally, not just the short-term shocks.[2]

Figure 1. Key elements of health systems resilience (after Kruk, adapted from Rockefeller, 2015 **http://bit.ly/2pTw49z**)

What are the key features of resilience and how can it be measured?

Resilient health systems have been characterised in one framework as having five key features: knowledge of available resources and emerging challenges; versatility to take action against a broad range of challenges; ability to contain health crises and avoid damaging reverberations in other parts of the health system; capacity to form a multi-sectoral response that integrates a range of actors and institutions; and flexible processes that allow for adaptation during crises.[5] An alternative framework for resilience focuses on three aspects: absorptive, adaptive and transformative resilience.[8, 13] These relate to the protection of service delivery during crises, the ability of a government to manage the health system using fewer resources, and its ability to introduce realistic reforms in response to the changing environment.

Much of the research on health systems resilience that has been completed to date has cut across the above features while focusing on understanding how communities, health workers and organisations respond to crises.[11, 14, 15] However, there is scant research to measure the resilience of health systems. The absence of appropriate measures was a key finding of the 2016 Global Symposium on Health Systems Research.[20]

Possible indicators to use for the measurement of health systems resilience can be drawn from the typology in the OECD's Guidelines for Resilience Systems Analysis.[21] Indicators for measuring health systems resilience include health outcomes, uptake of healthcare and incidence of coping behaviours that undermine health and wellbeing, such as child labour or reduced food intake. This perspective suggests for example that the health systems of Sierra Leone and Guinea lacked resilience before the Ebola crisis as they failed to sustain health outcomes and healthcare provision.[12] Such analyses depend on available data and must pay careful attention to assess equity of health outcomes across a range of social groups and geographic locations, as well as the starting position of the health system.

Prospective measurement of resilience is more challenging but could take the form of a set of policies or resources in place to protect health. This would mean going beyond a focus on health system resources to incorporate relevant community and social factors. It could be more amenable to an understanding of health system resilience as the absorption of changes, both short- and long-term.

How can resilience be enhanced?

Health financing arrangements

Communities provide a key resource for coping with crises,[22, 23] and evidence from Nigeria suggests people draw on their communities for financial and other support at times of crisis.[14] However the onset of crises disrupts family structures and social networks, leaving people with fewer resources to draw upon. There needs to be protection for funding for health services during and following protracted crises or else informal user fees become widespread and undermine equity of access.[13, 24] In Uganda and Cambodia people resorted to selling food and borrowing money in order to pay for healthcare costs,[25, 26] and there was a shift in source of healthcare, from formal private providers to public and informal private providers, particularly among the poorest.[27]

Equitable health financing arrangements can protect people from the costs of healthcare during and after crises.[28] Targeted user fee exemptions in Afghanistan helped to alleviate costs for the poorest but there were also reports of significant 'leakage' to less poor groups.[29] Evidence from Sierra Leone suggests that user fee exemptions reduced the proportion of users paying fees and increased uptake of certain healthcare services,[30] while health equity funds and vouchers increased uptake in Cambodia.[27] However, user fee exemptions and vouchers require concurrent supply-side investment to cope with increased demand, while health equity funds require well-functioning health systems or third-party payment structures.[24]

Health workforce policies

Health workers play a vital role in coping with emerging crises and sustaining health services in more protracted situations.[14, 31] Yet they face threats to personal safety and a range of professional challenges.[32] Workers cope with crises by changing their behaviours, drawing on social value systems and support networks, and engaging in other forms of income generation, including dual practice. For example workers in Sierra Leone during the Ebola epidemic received encouragement from family members and senior managers, and set up a social media platform to support one another.[33]

The recruitment, retention, training and productivity of health workers is affected if skilled workers are killed or migrate to more secure areas.[34, 35] Appropriate packages of financial and non-financial incentives can be used to maintain the motivation of workers during crises. Management practices are important too. In Timor-Leste, strong leadership, good communication and effective coordination were reported to have helped maintain staff morale.[36]

Donor and governmental organisations

Health systems resilience can be encouraged by donor support for broad-based health systems strengthening.[12] This includes support for health governance, supply chains, infrastructure, workers and information systems. Donors that respond to health crises must ensure that poorly served areas receive adequate support, not just those with existing infrastructure.[27] Social network analyses can be used to map actors and relationships in order to inform decision-making,[37] while the emerging concept of data-driven 'learning' in health systems may help to integrate service provision data with decision-making.[38]

It is important that donors work closely with other donors and with the local and national public and private sectors to facilitate a coordinated response. Governments can offer an important source of leadership during times of change, as indicated in Uganda where the public health sector retained a lead role before, during and after crisis.[27] Development partners need to support the capacity and leadership role of ministries of health, which are sometimes marginalised or side-lined during crises,[35] but which are vital for coordinating multi-sectoral responses.[39]

Windows of opportunity

The aftermath of a crisis can be used as an opportunity to rebuild an equitable and resilient health system.[40] The World Health Organization's toolkit to achieve health service resilience provides a template for the re-introduction of services,[41] while experience from previous crises can be used to put in place resilience mechanisms for future events. For example the health system in Ouagadougou, Burkina Faso, reportedly coped better with terrorist attacks due to the learning experience from periods of civil unrest during the preceding two years.[15] Health systems need to decentralise some capacity and allow adaptation in order to cope with disruptions, as demonstrated for example in northern Nigeria where decreasing the frequency of pharmaceutical procurement reportedly helped to minimise stock-outs.[14]

However, opportunities to rebuild an equitable health system in the aftermath of crises may take time to develop and are often missed as they depend on strong leadership, adequate financing and sufficient capacity to implement reforms.[42] The successful containment of Ebola in Uganda in 2001, for example, has been linked to local, national and international contextual factors that included trust between service users and a key non-governmental (faith-based) provider, a supportive environment for health workers and a quicker, coordinated response by donors.[43]

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