

Towards Building Resilience within and beyond the Health Systems

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The phrase *Health Systems Resilience* has become a buzz word, especially within the past year following the COVID-19 pandemic. The term *resilience* is used in different forms and meanings. It in general refers to reinstating back quickly to the before-the-crisis state, by tirelessly combating the crisis at present. The concept has its origins in the fields of engineering, environmental sciences, and ecology, developed to suggest that systems respond to shocks in a variety of ways: by absorbing them and returning to their original equilibrium or reaching a new equilibrium which makes them more resilient (1). In clinical psychology and mental health, resilience is manifested as the ability of the individual to adapt to adverse conditions such as trauma, or stress (2).

The emergence of resilience in the health systems is relatively recent (3), owing to emergent needs to respond to increasing health care demands of the ever-increasing population and the epidemics and pandemics occurring in different parts of the world. As a prime and live example, the rapid and unprecedented spread of the devastating novel coronavirus disease (COVID-19) has been testing health systems around the world since it first emerged in China in late 2019. This is signaling the impetus to reframe the resilience thinking in the health systems and to adopt comprehensive and systems-based approaches to resilience building. Concerting adequate emphasis on building health system resilience has thus become more essential today than ever before.

According to Kruk *et al* (3) “health system resilience is defined as the capacity of health actors, institutions, and populations to prepare for and effectively respond to crises; maintain core functions when a crisis hits; and, informed by lessons learned during the crisis, reorganise if conditions require it. Health systems are resilient if they protect human life and produce good health outcomes for all during a crisis and in its aftermath”. Health systems resilience is therefore about the system being able to adapt its functioning’s to absorb a shock and transform, as well as recover (4).

Resilience naturally extends into range of cycles and falls back to the state before the shock, where a system responds to a shock as good as its pre-shock state. This has been demonstrated very well during the Ebola pandemics in west Africa where fragile systems were most affected. Resilience therefore starts from the crisis-free state. One may ask what are benefits of investing on resilience in the absence of an imminent threat. Investing on resilience beforehand brings a dividend (resilience dividend), which is the net benefit that accrues from investments aimed at increasing resilience,

in the absence of a disruptive incident (5). Worthy to note here is that a resilient system is one with a double sword with benefits to the system even in the absence of emergencies which is translated into competence in services and continuous quality improvement processes. In the context of emergencies, this refers to the capacity of a health system to provide an effective health response to a public health emergency while also maintaining regular health services.

Since most essential health services are provided through health care facilities, this has resulted in a focused paradigm of *health facility resilience*. Health facility resilience is ‘the capability to absorb the impact of disasters without loss of functions (resistance); maintain its most essential functions (absorption and responsiveness); and ‘bounce back’ to the pre-event state (recovery) or to a new state of function (adaptation)’ (6). Health facility resilience (7) is composed of structural components (e.g., facility safety), non-structural components (e.g., staff, medication, and equipment), emergency medical functions (e.g., continuity of medical service) and disaster management capacity (e.g., plan and procedure, crisis communication, community linkage). Health facilities are considered resilient if they withstand the event, with both inherent strength with an ability to resist and respond to an external shock, and adaptive flexibility, which is the ability to bounce back and adapt. At the same time, they should be able to provide emergency medical services and surge their capacity to respond to sudden increases in demand associated with disasters and rapid population growth.

While maintaining an institutional focus as is demonstrated by health facility resilience, the system focus needs to extend beyond a particular sector such as the health system. The capacities towards resilience are achieved only through a wide variety of measures and strategies. A key consideration here is trans-sectoral platform for resilience which is multipronged. Such a platform will serve to provide communication and dialogue between the key sectors in planning as well as execution which starts by mapping out the key stakeholders and culminates in national resilience plan which is proactive and comprehensive enough to help build the attributes even in the absence of an impending shock.

As is demonstrated by the COVID crisis, the shock from public health emergencies such as COVID 19 pandemics is beyond immediate. Responding to such a shock requires mainstreaming resilience at all levels of the health system and in pre-service and in-service

trainings. We are still in a learning curve on the state of building all cycles resilient health services and systems. The health system is not operating in silos and the resilience thinking should extend beyond, to be multi-sectoral, and multi-dimensional across relevant sectors beyond health. To this effect the health system and concerned sectors need to bring forth and document lessons and challenges through systems analysis and make this a springboard towards mainstreamed resilience beyond health.

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