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Health systems resilience: meaningful construct or catchphrase?

Resilience is an emerging concept in the health systems discourse, further highlighted by infectious disease outbreaks including Ebola virus disease, Zika virus disease, and Middle East respiratory syndrome. However, the definition and exploration of resilience within health systems research remains a source of debate, as underscored at the recent 4th Global Symposium on Health Systems Research, Vancouver, BC, Canada; Nov 14–18, 2016.

Resilience in the health systems context has primarily been framed as a health system's capacity to recover—ie, to absorb shocks and sustain gains, often measured through health outcomes.¹ However, this definition does not capture the diverse conceptual underpinnings of resilience. Environmental disciplines view resilience as the amount of disturbance an ecosystem can absorb and remain stable.^{2,3} Similarly, policy positions view resilience as the ability to absorb disturbances and thrive.^{4,5} Stability and shock absorption are also found in disaster management and engineering; however, resilience engineering strives to anticipate future failures, while recognising that changing landscapes bring complexity requiring agility and novel responses.⁶ Psychology seeks a multidisciplinary understanding of resilience as an intrinsic force with multiple inputs and drivers.⁷ Resilience as defined by these fields points to the value of a wider, inclusive framing that acknowledges complexity and change beyond shock absorption.

Resilience is a concept loaded by its multidisciplinary context. As such, application of a narrow definition can be problematic. Although use of resilience as a shorthand for capacity to provide care in the face of disturbance is useful, resilience in health systems research should accommodate myriad

health systems' experiences, ranging from shocks such as infectious disease outbreaks and natural disasters to slow-burning challenges such as chronic diseases and rising health-care costs. Furthermore, factors beyond the health system should be understood—resilience within communities and other systems, including financial and sociopolitical systems, which influence and underpin how health systems function.

21st century health systems will face simultaneous challenges, and the concept of resilience must be dynamic enough to reflect the complexity and change inherent in diverse health systems. We should encourage a view of health systems resilience that is grounded in the understanding that each health system is unique, influenced by context and circumstances. The meaning of resilience should then emerge from and be shaped by the context in which it is applied. The conceptualisation of resilience should therefore not be prescriptive, but have breadth and flexibility, recognise complexity, consider shocks and cumulative stresses, attempt to deal with disruptions, and anticipate future failures.

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Private water operators' contribution to realising the right to water

The *Lancet* Editorial (Dec 10, p 2838)¹ rightly highlights the dangerous disregard for the right to water (and sanitation) and the health implications of this. However, the Editorial greatly underestimates the importance worldwide and draws on misinformation to reach incorrect conclusions.

In 2010–11, the UN General Assembly and the UN Human Rights Council finally decreed the dual human rights to safe access to drinking water and sanitation. These rights give clear guidance to states about what has to be done to comply. Water has to meet the criteria of availability, quality (ie, water must be safe for consumption and other uses, and not threaten human health), acceptability, accessibility, and affordability,² and be delivered with equity and non-discrimination.

Today, it is estimated that about 40% of the world's population (approximately 3.5 billion people) do not have access to water and sanitation that comply with these criteria and therefore do not enjoy the fulfilment of their rights. The results in terms of mortality and morbidity are terrifying. The deaths, disabilities, absence of education, and economic loss due to the disregard of these essential necessities by states are inexcusable.

The cases the Editorial cites from the USA illustrate this. The serious level of underinvestment in water systems and their poor operation and maintenance are failures of the public



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