

The imperative of a ceasefire for the recovery of public health education in Gaza

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The public health education system (PHES) supports the health system by training the workforce to provide essential public health services. Fifteen months into the October 2023 war in Gaza, extensive damage to the infrastructure has made Gaza uninhabitable. Public health infrastructure, including PHES, has been largely impacted, leaving the population insecure and deprived. The near-complete blockade of humanitarian aid, attacks on health facilities and workers, disruption of supply chains, resource shortages, lack of medical supplies, the large numbers of casualties, in addition to health worker burnout, lack of food, water, shelter and fuel, have had a heavy toll on the health system. This crisis is a transformative event that has profoundly affected Gaza's already struggling health system.

The collapse of the PHES has significant consequences for Gaza, with a multitude of negative outcomes, including an increase in disease burden, a deterioration of support systems, elevated health care costs, limited access to health care services, and an overall impact on global health security (1,2). Public health education is a fundamental element of a healthy, stable and prosperous society. The war has disrupted educational schedules, erasing years of accumulated knowledge and learning, and the destruction of physical infrastructure has severely hampered access to essential academic resources, including through e-learning (3,4).

School closures, damage to educational facilities and the displacement of students contribute to significant interruptions to learning, and further exacerbate the public health challenges, especially in areas critical to community health such as hygiene, nutrition and disease prevention, as key health topics cannot be taught to students (5).

PHES operates within health systems that serve communities. Therefore, rebuilding the PHES requires a comprehensive approach, which should be an integrative part of the health system and overall comprehensive

recovery plan in Gaza (6). Rebuilding the system after the conflict is an opportunity to reconceptualize PHES and promote a more resilient, more equitable and more effective system.

An national Marshall recovery vision for the PHES, with strategic trajectories, is essential. Such vision should begin, even amid the conflict, to identify needs and priorities, with sustainability plans for at least 10 years, in alignment with World Bank and UNESCO standards (7). The plan should be realistic, innovative and comprehensive and well-integrated into the national plans (8) and implemented in the following 3 stages:

Stage 1 should include a comprehensive and inclusive needs assessment and prioritization of the PHES. Key stakeholders, including the Palestinian education and health ministries, local non-government organizations and international partners, should work together to identify the PHES needs. Regular forums should be facilitated to ensure continuous engagement and feedback and the discussions should cover planning, governance, workforce, financing, infrastructure, logistics (buildings, supplies), technology, curriculum consolidation, funding, and training.

Stage 2 should include the provision of basic survival necessities for students and the workforce, which is critical for survival, health security and protection. Interventions should target rebuilding of the PHES enablers and facilities and should progress systematically based on the highest priorities within the comprehensive recovery plan. There should be a risk assessment to identify potential challenges such as funding shortages, political instability and logistics issues. Mitigation strategies such as establishing emergency funds and contingency plans should be embedded.

Rebuilding the public health system involves more than just reconstructing schools and colleges. It requires integrating recovery and rebuilding approaches, focusing on restoring people's daily lives, including going back

to work and school, alongside rebuilding vital social systems. For instance, PHES can support the bridging of workforce shortage gap by training physicians, nurses and allied health professionals. There should be provision for visual aids to illustrate the interconnected elements of PHES recovery, such as infrastructure, workforce development and governance.

Stage 3 should include strategic and collaborative efforts to rebuild the core pillars and services of the PHES. It will require long-term efforts and substantial resources. Among the recovery priorities are rebuilding the core pillars of PHES and its services as well as leadership and local capacity for planning, management and administration. Another priority is the rehabilitation of universities and educational institutes based on a consolidated plan with financial and technical support from international partners. Collaboratively operating the system, including formal and non-formal education and in-service and pre-service training programmes, is critical. Aligning

these efforts with the principles of ownership and stewardship of Palestinian institutions is necessary to ensure a culturally and professionally acceptable approach for seamless implementation.

Sustainability and resilience are key to the success of this vision, which can be achieved by collaboratively building local and international capacity alongside funding mechanisms run by a national multidisciplinary entity. Rebuilding PHES should include intersectoral partnerships involving the government, non-government, philanthropic, and private sectors, as well as global initiatives. The recovery plan should be coordinated nationally and integrated across the Palestinian sectors and the community to effectively address complex and interrelated issues. It should be aligned with the political agenda and should have in-built and robust monitoring mechanisms.

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