

Systematic review of health workforce surge capacity during COVID-19 and other viral pandemics

Neeru Gupta

N Gupta¹, SA Balcom¹, A Gulliver¹, RL Witherspoon¹

¹University of New Brunswick, Fredericton, Canada

Contact: ngupta@unb.ca

Background:

Healthcare decision-makers need comprehensive evidence to mitigate surges in the demand for human resources for health (HRH) during infectious disease outbreaks, in terms of both short- and longer-term impacts. This study aimed to assess the state of the evidence to address HRH surge capacity during COVID-19 and other outbreaks of global significance in the 21st century.

Methods:

We systematically searched eight bibliographic databases to extract primary research articles published between 01/2000-06/2020, capturing temporal changes in HRH requirements and responses surrounding viral respiratory infection pandemics. A systems approach was used, considering providers in hospitals, out-of-hospital systems, emergency medical services, and public health. We narratively synthesized the evidence following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) standard.

Results:

Of the 1,155 retrieved records, 16 studies met our inclusion criteria; of these, 5 focused on COVID-19, 3 on H1N1, and 8 on a hypothetical pandemic. Different training, mobilization, and redeployment options to address pandemic-time health system capacity were assessed. Few governance scenarios drew on observational HRH data allowing for comparability across contexts. Notable evidence gaps included occupational and psychosocial factors affecting healthcare workers' absenteeism and risk of burnout, gendered considerations of HRH capacity, evaluations in low- and lower-middle income countries, and policy-actionable assessments to inform post-pandemic recovery and sustainability of services for noncommunicable disease management.

Conclusions:

This research emphasized the critical need for timely, internationally comparable, and equity-informative HRH data and research to enhance preparedness, response, and recovery policies for this and future pandemics. Full paper is available at: <https://doi.org/10.1002/hpm.3137>

Key messages:

- The COVID-19 pandemic has highlighted the critical need for enhanced health workforce data and research, including better tracking of demographics, exposures, infections and deaths of health workers.
- Although women comprise 70% of the health workforce in many countries, gender-blindness persists in the global literature on health workforce research and governance in public health emergencies./bodyt