# How do nurses contribute to global health system resilience during disasters?: A scoping review protocol

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## **Background**

Health system resilience is emphasized by the World Health Organization (WHO) as a key objective for all countries, although most communities are not able to meet these targets (WHO, 2022a). Health system resilience is the ability of health systems to effectively respond to a system shock or disaster, while maintaining essential services and preserving population health (OECD, 2023). Significant global resources and research have attempted to identify achievable strategies to strengthen health systems and bolster resilience, yet no operationalizable toolkit has proven successful in all countries (Copeland et al., 2023; Forsgren et al., 2022; Rajapaksha et al., 2022). The COVID-19 global pandemic heightened the urgency of fostering resilient health systems globally, while also highlighting and exploiting many of the present barriers to achieving these goals (Paschoalotto et al., 2023). Similarly, recent WHO strategic directions have focused on strengthening the global nursing workforce in an effort to more effectively achieve Sustainable Development Goals (WHO, 2022b). Despite the momentum from global health agencies to develop a robust global nursing workforce, as well as focus on health system resilience, there has been little synthesized global discourse into how the nursing workforce can act as a key leader in the development of resilient health systems globally.

As the largest healthcare workforce globally, nurses are uniquely poised to act as key leaders in developing resilient health systems. Nurses take on nearly endless roles in the global sphere, interact directly with populations, and bridge the gap between health system and individuals (Salvage & White, 2020). The WHO estimates that there are almost 28 million nurses globally, encompassing nearly 60 percent of the healthcare workforce (Tanaka & Miyamoto, 2022). Additionally, the WHO and the International Council of Nurses (ICN) and Nursing Now released the State of the World's Nursing 2020 report, specifically highlighting the

need for nursing leadership in global policy development and practice decisions (WHO, 2020). Similarly, the ICN in 2022 called for nurse-led models of care, supported by evidence that nurses in leadership roles improve population outcomes (ICN, 2022).

Despite these calls for increasing nursing participation and leadership in health system policy globally, other published literature reviews on health system resilience omit nursing when discussing the relationships between leadership positions, health care workforce, and health system resilience (Copeland et al., 2023; Forsgren et al., 2022; Rajapaksha et al., 2022). Other health system resilience research examines power dynamics within systems when evaluating for resilience, specifically identifying the persons who carry the bulk of the load in regard to shock-responsive adaptation (Witter et al., 2023). Understanding the extent that nurses are able to participate in global health systems during disasters is critical for identifying more effective strategies to build health system resilience, and bring nursing voices to the table.

# **Objective**

The primary goal of this review is to answer the research question "How do nurses contribute to health system resilience during an identified shock or disaster?"

This scoping review of the literature will address this question and aims to:

- Identify how nurses, including degree nurses, registered nurses and advanced practice nurses, or their country's respective equivalents are utilized in their respective health systems during disasters.
- 2. Describe the facilitators, barriers, and opportunities nurses face in terms of contributing to health system resilience

#### Methods

### **Inclusion Criteria**

- Discusses the role and or utilization of nurses within the health system: may include global, regional, national, local, and/or individual facilities
- 2. Specifically reports and discusses a system shock or disaster
- 3. Specifically discusses resilience of the respective health system, either regional, local, or site specific.
- May include research studies, quality and/or process improvement projects

#### **Exclusion Criteria**

- 1. Written in languages other than English
- 2. Meta-analyses, Systematic or Scoping reviews
- 3. Editorials, dissertations, opinion pieces
- 4. Focus on mental health or individual resilience
- 5. Non-human subjects

# Search Strategy

PubMed Strategy:

((nurs\*) AND (health system resilien\*) AND (disaster\* OR emergenc\* OR pandemic\*))

SCOPUS Strategy:

TITLE-ABS-KEY(nurs\*) AND TITLE-ABS-KEY(("health system AND resilien\*))

AND TITLE-ABS-KEY(disaster\* OR pandemic\* OR emergenc\*)

CINAHL Strategy:

"nurs\*" AND "health system resilien\*"

Databases Searched:

PubMed: 445

Scopus: 302

CINAHL: 48

*Grey Literature:* Will be excluded.

Supplemental strategies:

Reference tracking (backward/forward)

Data collection and analysis

The identified studies will be imported into the Covidence Management software. All titles and

abstracts will be screened by two reviewers. KEK & SAB will assess if studies met the selection

criteria. Any questions on study inclusion will be discussed and arbitrated with a third reviewer.

Full-text review of the identified publications from the title/abstract review will be independently

screened by KEK & SAB to assess if studies met the selection criteria. Any questions on study

inclusion will be discussed and arbitrated with a third reviewer.

Screeners

Katherine Kruger

Sue Anne Bell

**Data extraction** 

We will extract qualitative and quantitative data specific to the review question to produce a

narrative synthesis. Data extraction will be independently verified.

*The following data will be extracted:* 

Location of study/project

Year of publication

Purpose of the study/project

Type of disaster or system shock

Health System Resilience Measures

Study/project design

Facilitators, barriers, and opportunities nurses face in participating in health system resilience

## **Analysis**

We plan to complete a narrative synthesis that addresses our primary objective and:

- Describe the extent that nurses participate in or contribute to health system resilience within disaster contexts
- 2. Describe the gaps and limitations of nurses in participating in health system resilience

### **Contributions of authors:**

K.E.K conceived the presented question & developed the protocol.

S.A.B contributed to development of the protocol

### **Declarations of interest**

Authors report no conflict of interest.

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#### References

- Copeland, S., Hinrichs-Krapels, S., Fecondo, F., Santizo, E. R., Bal, R., & Comes, T. (2023). A resilience view on health system resilience: A scoping review of empirical studies and reviews.

  \*BMC Health Services Research\*, 23(1), 1297. https://doi.org/10.1186/s12913-023-10022-8
- Forsgren, L., Tediosi, F., Blanchet, K., & Saulnier, D. D. (2022). Health systems resilience in practice:

  A scoping review to identify strategies for building resilience. *BMC health services*research, 22(1), 1173. https://doi-org.proxy.lib.umich.edu/10.1186/s12913-022-08544-8
- International Council of Nurses. (2023). 76th World health assembly ICN report: Nursing advocacy & influence in global health policy. Retrieved from https://www.icn.ch/sites/default/files/2023-11/WHA76\_ICN\_Report.pdf
- International Council of Nurses. (2022). The return on investment in nursing for global health is priceless" ICN calls for nurse-led models of care. Retrieved from

- https://www.icn.ch/news/return-investment-nursing-global-health-priceless-icn-calls-nurse-led-models-care
- OECD. (2023). Health systems resilience. Retrieved from <a href="https://www.oecd.org/health/health-systems-resilience.htm">https://www.oecd.org/health/health-systems-resilience.htm</a>
- Paschoalotto, M. A. C., Lazzari, E. A., Rocha, R., Massuda, A., & Castro, M. C. (2023). Health systems resilience: is it time to revisit resilience after COVID-19?. *Social science & medicine* (1982), 320, 115716. https://doi-org.proxy.lib.umich.edu/10.1016/j.socscimed.2023.115716
- Rajapaksha, R. M. N. U., Khatri, R. B., Abeysena, C., Wijesinghe, M. S. D., Endalamaw, A., Thomas, T. K., Perera, N., Rambukwella, R., De Silva, G., Fernando, M., & Alemu, Y. A. (2022). Success and challenges of health systems resilience-enhancing strategies for managing Public Health Emergencies of International Concerns (PHEIC): A systematic review protocol. *BMJ open*, *12*(11), e067829. https://doi.org/10.1136/bmjopen-2022-067829
- Salvage, J., & White, J. (2020). Our future is global: nursing leadership and global health. *Revista latino-americana de enfermagem*, 28, e3339. https://doi-org.proxy.lib.umich.edu/10.1590/1518-8345.4542.3339
- Tanaka, N., Miyamoto, K. (2022). The world needs more and better nurses. Here's how the education sector can help. (2022, October 27). Retrieved from <a href="https://blogs.worldbank.org/education/world-needs-more-and-better-nurses-heres-how-education-sector-can-help">https://blogs.worldbank.org/education/world-needs-more-and-better-nurses-heres-how-education-sector-can-help</a>
- Witter, S., Thomas, S., Topp, S.M., Barasa, E., Chopra, M., Cobos, D., Blanchet, K, Teddy, G., Atun, R., & Ager, A. (2023). Health system resilience: A critical review and reconceptualisation. *The Lancet Global Health*, *11*(9), e1454-e1458.

- Witter, S., Thomas, S., Topp, S. M., Barasa, E., Chopra, M., Cobos, D., Blanchet, K., Teddy,
  - G., Atun, R., & Ager, A. (2023). Health system resilience: A critical review and reconceptualisation. *The Lancet Global Health*, *11*(9), e1454–e1458.

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- World Health Organization (WHO). (2022a). Health systems resilience toolkit. Retrieved from https://iris.who.int/bitstream/handle/10665/354177/9789240048751-eng.pdf?sequence=1
- World Health Organization (WHO). (2022b). *Human resources for health—Global strategy on human resources for health: Workforce 2030—Report by the Director-General*. Retrieved from <a href="https://apps.who.int/gb/ebwha/pdf\_files/WHA75/A75\_15-en.pdf">https://apps.who.int/gb/ebwha/pdf\_files/WHA75/A75\_15-en.pdf</a>
- World Health Organization (WHO). (2020). 2020. *State of the World's Nursing 2020*. Retrieved from <a href="https://www.who.int/publications-detail/nursing-report-2020">https://www.who.int/publications-detail/nursing-report-2020</a>