

# Integrating Health Security Protocols Into Hospital Health Administration: A Study Of Nursing Leadership Roles

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## Abstract

**Background:** The adoption of efficacious health security strategies within the management structures of healthcare institutions has become an imperative in the modern healthcare delivery system. The role of nursing leadership has been an integral component in the process of adoption of such an event in respect to preparing for and responding to emergencies within health care. This study aims to examine how the adoption of such strategies related to health security within health care has been implemented within the health care systems of these institutions through leadership in nursing.

**Methods:** The present study employs a literature review method together with a case study approach in deriving its results. Research methodology for the study involves reviewing information regarding approaches in leadership, operative factors, issues with the application of health security, advanced practices in nursing, as well as emergency preparedness approaches in deriving a conclusion.

**Results:** The research shows that systemic planning, involvement at a multi-level, infrastructure development, as well as funds, are necessary prerequisites to ensure an effective integration process. The key findings express certain approaches by the leadership in the sector of nursing, as well as challenges currently faced. The results make it clear that there is an important role played by the leadership in the sector of nursing, as a means to mediate policy and practices, especially within a context pertaining to issues of public health.

**Conclusion:** The crucial role of nursing leaders in the incorporation of health security protocols into the health care management structure cannot be overemphasized. Their major strength in this regard is their capacity to traverse across the health care system in order to enhance responsiveness to threats of homeland security threats. Some concluding strategies are given in relation to improving health care security systems using the strength of nursing leaders.

**Keywords:** Leadership in nursing, health security, management of hospitals, emergency preparedness, advance practice in nursing, disaster preparedness.

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## Introduction

"Health security is one of the highest priorities of healthcare systems around the world and entails the capacity to detect and respond to a broad range of health threats, including infectious disease outbreaks, as well as natural disasters," (WHO, 2020; CDC, 2024). "However, the COVID-19 pandemic has underscored the essential role of a robust health security system, as well as the essential contribution of nursing leaders during a pandemic (Fawaz et al., 2020)." The administrators understand the process of developing a robust health security system requires some level of smart planning and planning expertise, which can only come from the nursing profession.

The role of nurses within the nursing administration is unique given that the administrators are involved as CEOs, middle/senior managers, professional practice administrators, and important policy-shapers (Canadian Nurses Association, 2002). Although the former are engaged in the mainstream administration of nursing, there are other complexities such as the formulation of strategies, effective management of resources, management of important stakeholders, and conceptualization of new models of healthcare service delivery. In consideration of the security of public health, the administration of nursing assumes a significance that is associated with the integration of professional nurses, creation of emergency response systems, and preparation of the health landscape against public health threats (Carter et al., 2011)

The International Health Regulations also continue to evolve to incorporate all-hazards preparedness. Indeed, the health security risk reduction factor now also includes natural disasters, chemical occurrences, biological dangers, and radiologic occurrences (Gostin & Katz, 2016). It is clear that this all-encompassing approach also needs to see corresponding improvements in models for nursing administration skills and nurse expertise. It is also clear that the nursing professionals have always taken a lead in this battle in cases of health-related disasters like that of the Spanish Flu in 1918 to date in respect of threats posed by SARS, Ebola Virus, and COVID-19 (Johnson, 2021; Holmgren et al., 2019; Guilamo-Ramos et al., 2021)

Despite the importance associated with these factors, health administrators in the field of nursing still face enormous problems in implementing health security measures due to lack of staff, lack of training, lack of financial support, and lack of infrastructure (Bryant-Lukosius, et al., 2004; Haddad, et al., 2025). Its understanding to be addressed with a sense of urgency for the administration of the hospital.

This paper will try to: (1) explore the function of nursing leaders in the integration of health security protocols; (2) identify the essential strategies for effective implementation of health security protocols; (3) explore difficulties and facilitators encountered by an institution; and (4) make recommendations on how nurses should contribute to health security administration in hospitals.

## Literature Review

### Conceptualizing Health Security in Hospital Settings

Furthermore, the World Health Organization has established the definition of health care security as efforts as well as actions that are implemented at different levels with the purpose of maintaining the health of the populace from different threats or dangers by prevention, detection, or response (World Health Organization, 2020). Moreover, in a health care facility, it is essential to ensure that the incorporation of health care security is achieved through the combined efforts of different departments in the health care facility. Lastly, the CDC's Global Health Strategic Framework has identified four critical aims of health care security in the

prevention of health care threats. These aims comprise stopping the source of threats, controlling outbreaks, data utilization for prevention, and the protection of lives (Centers for Disease Control and Prevention, 2024)



**Figure1: Framework of the study**

The present reality of health security includes the utilization of technology such as digital surveillance, telemedicine, and artificial intelligence in such things as predictive analysis (Almalawi et al., 2023). These technological changes mean that the roles of nursing leadership have to encompass the protection of data security, digital literacy, as well as education on cybersecurity, all of which lie within the realm of areas that do not belong to normal nursing administrations (Fernandes et al., 2021)

### **Health Security: The Implementation of Nurse Leadership**

#### **In the world of healthcare**

The nursing profession has a rich history of leadership in the arena of health security issues over the past one hundred years. The precedents were established for the engagement of the nursing profession in the event of serious health emergencies like the influenza pandemic of 1918 (Johnson, 2021). The incident of SARS in 2003 established the capacity for a change in practice for the purpose of infection control (Lee et al., 2005; Chou et al., 2010)

The Ebola outbreak in 2014-2015 has illustrated that the importance of leadership activities within nursing in respect to developing facilities for care provision, handling the regulation of voluntary workers from other countries, and staying ethical in cases where there are serious resource shortages cannot be overstated (Holmgren et al., 2019). Each of these has contributed to a body of knowledge in respect to patient care.

“The COVID-19 pandemic has been characterized as the defining moment of the generation of the 21st century and an inflection point in the history of the world” and emphasized the “inevitability and vulnerability of nursing leadership” concerning health security. The official response of nurses to the pandemic was through emergency operations plans, personal protective equipment management, emergency communication operations, and direct patient

service in the midst of unprecedeted stressors and dangers to practice (Fawaz et al., 2020; American Nurses Association, 2015)

### **Organizational Leadership Strategies**

There are some important strategies that can be employed during the implementation of advanced practice nursing roles and health security plans. According to Bryant-Lukosius and DiCenso (2004), the PEPPA model is the “Participatory, Evidence-based, Patient-focused Process.” This is evidence that a systematic approach to the implementation of the roles results in a greatly improved outcome than a nonsystematic approach (Carter et al., 2011)

This “Recognizing and Celebrating Small Wins” model is developed by Reay et al. (2003, 2006). This model focuses on small actions to achieve larger goals. They have also conducted a research study titled “Alberta Healthcare Manager Study”, through which they have recognized eight leadership practices: team task clarification, protecting job motivation factors during the allocation of tasks, management of conflict through analysis of task allocation, management of varied ideas about relationships, management through teamwork to establish amiable relationships, the concept of ‘ balcony perspective’ for leadership, development of teamwork-based, not personalized, goals, sharing ideas related to their own past experiences with other managers.

It becomes clear that stakeholder engagement emerges as one of the themes that have been prominent in the existing literature regarding implementation. According to MacDonald et al. (2005, 2006), and also as identified by Schreiber et al. (2005a, 2005b), there emerges the need for the early engagement of doctors, nurses, and other healthcare professionals in the planning phase because of the importance of extending the planning phase and the achievement of better results.

### **Barriers to Rural-Rural Transitions**

The current nursing leadership is challenged by a number of issues which are intricate and contribute to a setting not conducive to an integrated strategy on health security:

**Shortage of Workers:** The USA is projected to have an approximate shortage of 78,000 registered nurses by 2025, declining to 63,000 nurses by 2030 (AACN, 2023). The Covid-19 pandemic broke out, increasing the shortage as over 100,000 nurses left due to stress and burnout in the 2021-22 years (Colosi, 2025). An estimated 78% of nurses come from countries whose population represents only 49% of world residents' shares as compared to WHO projections (WHO, 2025)

**Training Deficits:** On average, the training provided for American nursing schools is only one hour regarding a cataclysmic event such as a pandemic outbreak and a natural disaster (University of Tennessee News, 2019). It was found that there is a deficit concerning the training and knowledge regarding disasters among nursing students and faculty (Eskici et al., 2025; Hasan et al., 2021).

**Mental Health and Burnout:** Only 42% of the countries offer mental health services for nurses despite the high levels of job-related stress (WHO, 2025). Burnout from work-related trauma and lack of adequate mechanisms for their support lead to the high turnover rates of nurses (Stone et al., 2004).

**Infrastructural and Resource Challenges:** Insufficiencies in terms of space, administrative staff, communication infrastructure, and support staff may prevent the integration of roles in advanced practice providers (Allard & Durand, 2006; D'Amour et al., 2007; Martin-Misener et al., 2008)

Funding Sustainability: The challenge that nurses face in terms of funding is whether to devote money for development in advanced practice roles or for sustainability in terms of basic nurse services due to economic cycles (Carter et al., 2011).

## Methods

The research used a narrative synthesis methodology to combine results from two detailed reports about nursing leadership and health security. The two sources comprised:

1. Carter et al. (2011): Decision Support Synthesis: The role of nursing leadership in the integration of Clinical Nurse Specialists and Nurse Practitioners within the Canadian healthcare system, as a result of scoping review and 62 Key Informant Interviews conducted in five provinces.

2. Alzayni et al. (2024): A systematic review exploring the role of nurses in improving the health security of the international community by analyzing past crises.

The process of synthesis included the identification of: (1) the fundamental roles of nursing leaders in the context of health security integration, (2) strategies of successful implementation, (3) barriers and facilitators in the context of the hospital as the organization, and (4) implications for health policies and education. Extraction of data from the studies included themes of hospital administration, leadership, stakeholders, allocation of resources, or emergency preparedness.

## Leadership Roles of Nurses in Integrating Health Security

There were five key themes that arose from the analysis concerning the domains that a nurse has responsibility for on existing healthcare campus environments concerning the integration of health security measures (see Table 1).

**Table 1: Nursing Leadership Roles in Integrating Dimensions of Health Security**

Leadership Domain	Key Responsibilities	Supporting Evidence
Strategic Planning	<ul style="list-style-type: none"><li>Conducting needs assessments</li><li>Developing role-specific job descriptions</li><li>Creating implementation timelines</li><li>Utilizing structured frameworks (e.g., PEPPA)</li></ul>	Carter et al., 2011; Bryant-Lukosius et al., 2004
Stakeholder Engagement	<ul style="list-style-type: none"><li>Coordinating with physicians and interdisciplinary teams</li><li>Establishing working groups</li><li>Facilitating communication channels</li><li>Building organizational consensus</li></ul>	MacDonald et al., 2005; Schreiber et al., 2005a
Resource Management	<ul style="list-style-type: none"><li>Securing sustainable funding</li><li>Allocating physical infrastructure</li><li>Providing technological support</li><li>Managing PPE and supplies</li></ul>	D'Amour et al., 2007; Lachance, 2005
Crisis Leadership	<ul style="list-style-type: none"><li>Activating emergency operations plans</li><li>Coordinating incident command</li></ul>	Fawaz et al., 2020; Reay et al., 2006

	systems • Managing crisis communications • Overseeing PPE utilization	
<b>Professional Development</b>	• Establishing mentorship programs • Creating communities of practice • Facilitating networking opportunities • Supporting continuing education	Hamilton et al., 1990; van Soeren et al., 2007

### Implementation Strategies for Health Security Protocols

Leadership strategies associated with successful health security protocol integration are summarized in Table 2.

**Table 2: Evidence-Based Strategies for Health Security Protocol Implementation**

Strategy Category	Specific Actions	Expected Outcomes	References
<b>Systematic Framework Adoption</b>	<ul style="list-style-type: none"> <li>Implement PEPPA framework</li> <li>Use Canadian implementation toolkits</li> <li>Adopt structured planning processes</li> <li>Conduct regular evaluations</li> </ul>	<ul style="list-style-type: none"> <li>Organized approach to role introduction</li> <li>Reduced common barriers</li> <li>Improved team understanding</li> <li>Enhanced role sustainability</li> </ul>	Bryant-Lukosius & DiCenso, 2004; CNPI, 2006a; Carter et al., 2011
<b>Early Stakeholder Involvement</b>	<ul style="list-style-type: none"> <li>Form multidisciplinary working groups</li> <li>Conduct physician consultations</li> <li>Engage staff nurses in planning</li> <li>Address concerns proactively</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced support for change initiatives</li> <li>Improved role clarity</li> <li>Reduced resistance</li> <li>Facilitated smoother integration</li> </ul>	MacDonald et al., 2006; Cummings & McLennan, 2005
<b>Communication Enhancement</b>	<ul style="list-style-type: none"> <li>Articulate clear role expectations</li> <li>Develop comprehensive job descriptions</li> <li>Conduct awareness campaigns</li> <li>Share success stories</li> </ul>	<ul style="list-style-type: none"> <li>Increased organizational awareness</li> <li>Better team understanding</li> <li>Reduced confusion</li> <li>Enhanced acceptance</li> </ul>	Bailey et al., 2006; Wall, 2006
<b>Network Support Systems</b>	<ul style="list-style-type: none"> <li>Create communities of practice</li> <li>Establish mentorship programs</li> <li>Facilitate peer</li> </ul>	<ul style="list-style-type: none"> <li>Reduced professional isolation</li> <li>Enhanced role satisfaction</li> </ul>	Micevski et al., 2004; Roots & MacDonald, 2008

	<p>connections</p> <ul style="list-style-type: none"> <li>Organize regular meetings</li> </ul>	<ul style="list-style-type: none"> <li>Improved knowledge sharing</li> <li>Better integration outcomes</li> </ul>	
<b>Role Dimension Protection</b>	<ul style="list-style-type: none"> <li>Allocate time for non-clinical activities</li> <li>Support research participation</li> <li>Enable education opportunities</li> <li>Facilitate leadership activities</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced job satisfaction</li> <li>Professional development</li> <li>Advancement of nursing science</li> <li>Improved retention</li> </ul>	Bryant-Lukosius et al., 2004; Sidani et al., 2000

### Organizational Challenges and Barriers

Table 3 presents the major challenges identified in integrating health security protocols, their impacts, and prevalence across healthcare settings.

**Table 3: Organizational Challenges in Health Security Protocol Integration**

Challenge Category	Specific Issues	Impact on Integration	Prevalence	Evidence Source
<b>Workforce Deficits</b>	<ul style="list-style-type: none"> <li>78,000 RN shortage projected by 2025</li> <li>100,000+ nurses left workforce 2020-2021</li> <li>Insufficient new graduate pipeline</li> <li>Regional disparities</li> </ul>	<ul style="list-style-type: none"> <li>Reduced service capacity</li> <li>Compromised patient safety</li> <li>Increased wait times</li> <li>Burnout exacerbation</li> </ul>	<b>Critical</b> (Global)	AACN, 2023; Colosi, 2025; WHO, 2025
<b>Education Gaps</b>	<ul style="list-style-type: none"> <li>Average 1 hour disaster training</li> <li>Faculty unpreparedness</li> <li>Inadequate practical skills</li> <li>Limited cultural competence</li> </ul>	<ul style="list-style-type: none"> <li>Insufficient emergency response capability</li> <li>Delayed crisis adaptation</li> <li>Reduced effectiveness</li> </ul>	<b>High</b> (US/Canada)	University of Tennessee, 2019; Eskici et al., 2025
<b>Funding Constraints</b>	<ul style="list-style-type: none"> <li>Competition with RN services for budget</li> <li>Lack of protected funding streams</li> <li>Cyclical economic vulnerability</li> </ul>	<ul style="list-style-type: none"> <li>Role elimination during crises</li> <li>Inability to create new positions</li> <li>Workforce instability</li> </ul>	<b>High</b> (All regions)	Carter et al., 2011; DiCenso et al., 2010b

	<ul style="list-style-type: none"> <li>• Sustainability threats</li> </ul>			
<b>Infrastructure Deficits</b>	<ul style="list-style-type: none"> <li>• Inadequate physical space</li> <li>• Insufficient clerical support</li> <li>• Limited technology access</li> <li>• Lack of supportive policies</li> </ul>	<ul style="list-style-type: none"> <li>• Role marginalization</li> <li>• Reduced effectiveness</li> <li>• Professional frustration</li> </ul>	<b>Moderate to High</b>	D'Amour et al., 2007; Turris et al., 2005
<b>Mental Health Risks</b>	<ul style="list-style-type: none"> <li>• 58% of countries lack support</li> <li>• Widespread burnout</li> <li>• Compassion fatigue</li> <li>• Occupational trauma</li> </ul>	<ul style="list-style-type: none"> <li>• Workforce attrition</li> <li>• Reduced performance</li> <li>• Health security compromised</li> </ul>	<b>High (Global)</b>	WHO, 2025; Lee et al., 2005
<b>Occupational Safety</b>	<ul style="list-style-type: none"> <li>• Inadequate PPE during pandemics</li> <li>• Workplace violence</li> <li>• Unsafe conflict zone conditions</li> <li>• Legal/ethical ambiguity</li> </ul>	<ul style="list-style-type: none"> <li>• Healthcare worker infections</li> <li>• Injury risk</li> <li>• Ethical distress</li> <li>• Job abandonment</li> </ul>	<b>Moderate to High</b>	Stone et al., 2004; Fawaz et al., 2020

#### **Disaster Management and Emergency Response Roles**

Table 4 delineates specific nursing leadership responsibilities across different phases of disaster management and types of health security threats.

**Table 4: Nursing Leadership Roles Across Disaster Management Phases**

<b>Disaster Phase</b>	<b>Leadership Activities</b>	<b>Specific Responsibilities</b>	<b>Crisis Examples</b>
<b>Preparedness</b>	<ul style="list-style-type: none"> <li>• Risk assessment</li> <li>• Training coordination</li> <li>• Resource stockpiling</li> <li>• Protocol development</li> </ul>	<ul style="list-style-type: none"> <li>• Conducting needs assessments</li> <li>• Organizing disaster drills</li> <li>• Establishing communication plans</li> <li>• Creating response teams</li> </ul>	All-hazards preparation
<b>Detection/Surveillance</b>	<ul style="list-style-type: none"> <li>• Monitoring systems</li> <li>• Early warning coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinating surveillance activities</li> <li>• Training in</li> </ul>	H1N1 (2009), COVID-19

	<ul style="list-style-type: none"> <li>• Data analysis</li> <li>• Reporting mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>detection protocols</li> <li>• Establishing reporting chains</li> <li>• Facilitating contact tracing</li> </ul>	
<b>Response</b>	<ul style="list-style-type: none"> <li>• Emergency operations activation</li> <li>• Incident command participation</li> <li>• Resource deployment</li> <li>• Crisis communication</li> </ul>	<ul style="list-style-type: none"> <li>• Activating emergency plans</li> <li>• Managing PPE distribution</li> <li>• Coordinating patient flow</li> <li>• Leading interdisciplinary teams</li> </ul>	SARS (2003), Ebola (2014-15), COVID-19
<b>Recovery</b>	<ul style="list-style-type: none"> <li>• Mental health support</li> <li>• Service restoration</li> <li>• Evaluation activities</li> <li>• Continuous improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Organizing debriefings</li> <li>• Providing staff counseling</li> <li>• Conducting after-action reviews</li> <li>• Implementing improvements</li> </ul>	Post-disaster rehabilitation

### Factors Influencing Successful Integration

Analysis identified key facilitators and barriers to successful health security protocol integration (Table 5).

**Table 5: Facilitators and Barriers to Health Security Protocol Integration**

Factor Category	Facilitators	Barriers	Evidence
<b>Administrative Support</b>	<ul style="list-style-type: none"> <li>• Strong senior nursing leadership</li> <li>• Clear reporting structures</li> <li>• Regular communication</li> <li>• Partnership approach</li> </ul>	<ul style="list-style-type: none"> <li>• Absent nursing leadership</li> <li>• Ambiguous reporting lines</li> <li>• Limited administrative attention</li> <li>• Program management models</li> </ul>	Carter et al., 2011; Bryant-Lukosius et al., 2004
<b>Planning Processes</b>	<ul style="list-style-type: none"> <li>• Systematic needs assessment</li> <li>• Framework utilization (PEPPA)</li> <li>• Extended planning timelines</li> <li>• Stakeholder involvement</li> </ul>	<ul style="list-style-type: none"> <li>• Poor planning under time pressure</li> <li>• Funding-driven implementation</li> <li>• Inadequate needs assessment</li> <li>• Rushed timelines</li> </ul>	Bryant-Lukosius et al., 2007; Mitchell et al., 1995

<b>Organizational Culture</b>	<ul style="list-style-type: none"> <li>• Support for innovation</li> <li>• Proven success with APNs</li> <li>• Collaborative environment</li> <li>• Quality care emphasis</li> </ul>	<ul style="list-style-type: none"> <li>• Resistance to change</li> <li>• Lack of APN familiarity</li> <li>• Hierarchical structures</li> <li>• Cost-focused priorities</li> </ul>	Reay et al., 2006; MacDonald et al., 2005
<b>Role Clarity</b>	<ul style="list-style-type: none"> <li>• Detailed job descriptions</li> <li>• Clear scope of practice</li> <li>• Defined expectations</li> <li>• Ongoing negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ambiguous responsibilities</li> <li>• Conflicting expectations</li> <li>• Inadequate communication</li> <li>• Team confusion</li> </ul>	Cummings et al., 2003; Wall, 2006
<b>Resource Availability</b>	<ul style="list-style-type: none"> <li>• Protected funding streams</li> <li>• Adequate infrastructure</li> <li>• Sufficient support staff</li> <li>• Technology access</li> </ul>	<ul style="list-style-type: none"> <li>• Competing budget priorities</li> <li>• Insufficient space/equipment</li> <li>• Lack of clerical support</li> <li>• Poor technology</li> </ul>	D'Amour et al., 2007; Martin-Misener et al., 2008

## Discussion

This discussion has shown that leadership in nursing has a complex and vital role in ensuring that protocols related to health security are integrated into hospital management. The discussion has clearly shown that for protocols to be integrated into hospital management, it is not enough to establish posts and policies but that leadership has to be focused in ensuring that barriers are overcome.

### Strategic Leadership as a Foundation

It is essential that the nursing executive address and effectively balance the competing tensions of needing the rapid response capability versus the planning that is necessary, needing the immediate productivity of the clinical capabilities versus the value of protecting time that is focused on education and research, and needing the immediate wins versus the establishment of a sustainable long-term structure. The “small wins” strategy outlined by Reay et al. (2006) is a useful tool to address such competing tensions.

### The Critical Role of Stakeholder Engagement

Literature also identifies early, sustained engagement with stakeholders as critical for the integration of health security protocol change. Underlying the finding is the underlying change management principle that people will rally behind that in which they are invested. Nursing executives who are proactive in developing multidisciplinary teams, performing consultations with physicians, and engaging staff in planning can foster ownership over the change, rather than resistance to change.

Nevertheless, stakeholder engagement is more than a process requirement, it signifies the inherently interdisciplinary nature of health security. Thus, the task of preventing, detecting, and responding to health risks cannot be accomplished safely or efficiently from a professional

perspective in a discipline-by-discipline or profession-by-profession manner, including in the discipline of nursing. Then, the inclusion of both CNSs and NPs in the healthcare systems necessarily entails professional boundaries' negotiation, collaborative relationships' designation, and a mutual comprehension of the distinct contributions of the respective roles.

The COVID-19 pandemic has underscored the complexities of stakeholder relationships, and in particular, the ethics that exist within the care obligations of the nurse versus the self-care needs (American Nurses Association, 2015). To understand the complexities faced here, the issues cannot be solved with the making of policies but with communications that exist within the organization.

### **Resource Limitations as the Main Hindrance**

The most difficult to change from an analysis perspective is related to resource limitations, specifically funding for sustainability and infrastructure support. According to nursing leaders, they are faced with funding high-level positions for advanced practices versus funding for registered nurses—a dilemma that is a false dichotomy stemming from underfunding for health security infrastructure resources as well as for nursing capacity.

The cyclic nature of investment in health security—during a crisis, investment ramps up, while in a recovery phase, it scales down—exhibits deep levels of inefficiency and challenges the stability of the workforce. Well-educated advanced practice registered nurses quit their jobs in times of budget cuts, leading to a heavy burden of new expenses to recruit and train nurses for a new emergency. The issue indicates a shift in the understanding of health security investment from a response-to-crisis model to a continuous organizational framework.

Lack of facilities, lack of office space or clerical staff, lack of technology availability can appear minuscule in comparison with a lack of staff or budget. Yet these can convey potent messages in an organization about priority levels of advanced practice nursing roles and health security functions in an organization. Advanced practice registered nurses cannot effectively advocate for health security role incorporation if basic ingredients for success are not supplied by an organization.

### **Education and Training Gaps**

The observation that average instruction hours for disaster preparedness for American nurses is only an hour (University of Tennessee News, 2019) is an incredibly disparate element when considering preparation with the needs for modern health security. This observation is not limited to instruction on disaster but also encompasses areas concerning Health, Epidemiology, Disaster Management, Competency on Cultural Diversity, and Technological Competency.

The education of nurses has traditionally focused on patient care in comparatively stable settings. The move from patient care to health in populations in times of disaster and health security calls for change in the current curriculum. The change is set to face various challenges, which include an already-packed curriculum and a lack of clinical sites for practice in disaster settings.

Continuing education, while a partial solution, cannot sufficiently overcome educational deficits, and learning within a work environment cannot compensate for a weak educational groundwork. The nursing leadership must therefore advocate for changes within the educational system while establishing a learning environment within their organizations.

### **Mental Health and Occupational Safety**

The most troubling of the findings made within this analysis would have to be the universal lack of effective mental health support for the nurses working for health security. With only

42% of the world providing mental health support for these nurses according to the WHO in 2025:

The ethical consideration that healthcare professionals also have a responsibility to both consumers and themselves (American Nurses Association, 2015) needs to apply to healthcare organizations. Strategies to address mental health support in healthcare need to be developed by healthcare leaders to ensure that psychological first aid, critical incident stress debriefing sessions, mental health support programs, and mental health-encouraging environments in healthcare organizations become a reality.

Occupational safety can also be extended to include psychological issues as well as physical hazards, which can range from inadequate PPE, violence, and inappropriate working environments within a conflict setting. The rate at which COVID-19 affected healthcare personnel, especially as a result of inadequate PPE, signifies significant failures within the system to safeguard those who provide care. Nursing leaders have a responsibility to ensure occupational safety.

### **Implications of Findings for Policy and Practice**

“There are a few important implications that arise from this analysis:”

For Healthcare Organizations:

1. Embrace systematic planning systems such as PEPPA for all health security role implementation processes
2. Provide dedicated funding streams for advanced practice nurses
3. Develop overall infrastructure services for space, technology, and human resources
4. Establish strong mental health support structures for all healthcare practitioners
5. Establish reporting lines and roles of responsibility
6. Cultivate organizational cultures which emphasize innovation and the well-being of employees

For Nursing Education:

1. Infuse curricula with a full range of disaster preparation, health security.
2. Build faculty expertise in emergency management and public health
3. Develop simulation activities to prepare the students for crises
4. Improve cultural competency and global views of health
5. Utilize Technology, Security, and Health Literacy

For Policy Makers:

1. Develop sustainable financing methods for health security infrastructure
2. Break the cycle of crisis-driven investment followed by budget contraction
3. Collaborate in Nursing workforce development and retention activities
4. Areas of Mandate Occupational-Safety Requirements for PPE stockpiles

5. Develop regulatory models that will allow advanced practice nurses to flourish
6. Building capacity for health security through investment in surveillance, response, and recovery capabilities within a country

**For Nursing Leaders:**

1. lobby actively for resources, infrastructure, and sustainable funding
2. Develop cooperative partnerships with interdisciplinary professionals
3. Provide opportunities for mentorship and professional growth
4. Develop Communities of Practice for Knowledge Sharing
5. Clarify Communication of Role Expectations and Organizational Priorities
6. Promote a balance of staff welfare and patient care Limitations

This review has some limitations. The first source of data is mainly based on the context of Canada or America alone. This does not directly lead to the generalization of this process for healthcare systems with different organizations. The review of the various studies has been based on different methodologies. The quality of the methodologies differs. This narrative synthesis does not permit the execution of a meta-analysis of the results.

Furthermore, the ever-changing nature of health security, especially as regards technology integration and cyber security, implies that some of the information might become stale as a result of emerging issues. The documents contain limited data as regards cost effectiveness, patient outcomes, and differences of implementing methods.

The future of research needs to address the above challenges and the missing areas of scientific knowledge with the help of multi-national comparative research work and randomized controlled research work related to the implementation strategy.

**Conclusion**

Leadership in nursing is a vital determinant that affects the successful integration of health security policies in hospital health administration. The evidence presented shows that successful nursing leadership is characterized by systematic planning models, the involvement of diverse stakeholders, advocacy for sufficient resources, the safeguarding of multi-dimensional roles, and the formulation of strategic networks for advanced practice nurses. Nonetheless, there exist daunting challenges such as a shortage of workforce, deficits in education, finances, infrastructure, and psychosocial care.

The COVID-19 pandemic has made it abundantly clear that the presence of leadership in the nursing discipline is crucial for healthcare security and the vulnerable nature of healthcare systems when it comes to investment in the nursing workforce. In the future, healthcare organizations will be challenged to redefine the notion of healthcare security from a reaction tool to a vehicle.

To maximize the contribution of nursing leadership to health security, there must be collective effort at several levels: at the level of organizational policies, which must offer nurses stature and resource allocations; at the level of educational reform, which must prepare nursing professionals for a larger role; at the level of regulatory mechanisms, which must permit a more prominent role for nursing professionals; and at the level of resource allocations, which must help cut short a vicious cycle of resource investment only when there is a disaster or a threatened disaster. The consequences of not doing any of these can be calamitous to public health.

As threats to global health continue to evolve, the demand for high-quality nursing leadership in a health security context is sure to continue. Organizations that invest in developing leadership capacity in nursing and ensure that this is couched in a facilitating environment for implementing health security capacity will fare best in protecting both themselves and their populations.

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