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## **Strategies for embedding population health concepts into nursing education**

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**Abstract**

Advances in community and public health are needed to address contemporary health needs, particularly poor health outcomes related to the social determinants of health and inequity. Nurses are ideally placed to promote meaningful advances in community and public health, collectively referred to as population health. Nurse educators can promote a deeper understanding of core population health concepts by threading these concepts throughout the academic nursing curricula in addition to standalone population or public health courses. Strategies for incorporating population health concepts in a variety of courses can be conceptualized through the themes emphasizing context, honoring community voices, cultivating community connection, and fostering leadership in social responsibility. Nurse educators with expertise in population health can serve as a resource for faculty as these strategies are implemented. Teaching population health provides exciting opportunities for innovative approaches to facilitate students to link their practice to wider social contexts. Further steps to strengthen the public and community health workforce will still be needed to meet population health needs.

## Strategies for Embedding Population Health Concepts into Nursing Education

Not everyone in the United States (U.S.) has the same opportunity to experience health and well-being. Despite spending about twice as much on healthcare when compared to other high-income countries, the U.S. has the lowest life expectancy when compared to peer nations.<sup>1</sup> In addition, the U.S. has the highest rate of chronic disease, suicide, and preventable hospitalization stays.<sup>2</sup> Despite access to advanced medical technology and institutions, the U.S. is ranked 15<sup>th</sup> in quality of life and has large health disparities by race, ethnicity, and location.<sup>3,4</sup>

Nurses, as the largest and most trusted health profession, play a central role in the effort to improve these disappointing health outcomes. Nurses are recognized leaders in individual, community, and population health.<sup>5,6</sup> However, to effectively intervene and improve health at the societal level, it is necessary to ensure the nursing workforce is competent in basic population health skills. A population health focus is needed to understand individual patients who are nested in families, communities, and larger societies, and how their physical and social environments impact health. Nurses that have both a conceptual understanding of core population health concepts and the ability to use these concepts to make care decisions can promote positive population outcomes regardless of practice setting. All nurses have a responsibility to population health and must be prepared with basic proficiency in fundamental population health concepts.<sup>7,8</sup> This begins with a solid educational foundation in nursing curricula.

### Background

Population health includes concepts related to public health nursing, which is population-focused, and community health nursing, which has been identified as individual or family care in community settings.<sup>9,10</sup> Population health can be understood both in terms of outcomes and activities. Kindig and Stoddard<sup>11</sup> focused on outcomes and broadly described population health as “the health outcomes of a group of individuals, including the distribution of such outcomes within the group” (p.380). These population groups can vary widely to include, for example, geographic areas or socio-demographic groups. Population health also moves beyond the study of outcomes and encompasses health determinants and policies and interventions focused on health outcomes and determinants.<sup>12</sup> Health outcomes are influenced by factors beyond clinical care and medical intervention.<sup>4</sup> Specifically, knowledge of how social determinants of health influence health outcomes is increasingly recognized as critical to achieving population health goals, particularly goals involving reducing health disparities. Access to quality education, adequate housing, and safe neighborhoods are just a few of the social determinants impacting health experienced differently by diverse groups within society.

The Future of Nursing 2020-2030 Commission<sup>13</sup> recognizes the integral role nurses have in improving the health of populations by addressing social determinants of health that lead to or worsen health inequities by providing “effective, efficient, equitable, and accessible care for all across the care continuum.” All nursing practice is greatly impacted by complex, inter-woven factors that impact health and health care regardless of area of specialization. To continue to move beyond acute care focused training and tackle population health issues, nursing education needs to evolve. Population health-focused nursing education needs to be explicit and integrated

into all nursing programs. The purpose of this paper is to provide initial strategies and recommendations for incorporating population health competencies across nursing curricula.

### **Strategies for Curriculum Integration**

Effectively integrating population health competencies throughout nursing curricula requires strategic planning at both the program and course level. Gorski, Polanski, and Swider outline seven key population health concepts that should be threaded throughout the curriculum: policy, epidemiology/biostatistics, social determinants of health, health equity, interprofessional team building and skills, economics of health care, and systems thinking.<sup>14</sup>

Effectively integrating these concepts will require more than simply adding additional competencies to courses, which may lead to an overcrowded curriculum and tendency to design activities that ‘check the box’ instead of a true reconceptualization of how faculty teach. Educators teaching within a variety of nursing courses can use strategies to reimagine traditional content delivery with population health concepts. Well-designed learning activities may address several core population health concepts, as well as reinforce traditional learning objectives without overburdening the course. Curriculum maps drawn at the program level will help to ensure that these competencies are introduced to students early in their programs and effectively expanded throughout the program of study. It is important to note that standalone courses addressing key population and public health concepts should remain a valuable component of nursing curriculum. A distinct population or public health course can be enhanced as students enter the course with a basic understanding of core concepts, allowing a higher level of mastery through focused study. Further, complementing standalone courses with competencies threaded throughout the curriculum could potentially lead to a deeper appreciation of the specialty areas of both community and public health, possibly leading more students to pursue these areas of nursing specialty through graduate education and professional practice. Courses with a sole focus on population or public health are essential and must remain in nursing plans of study.

Reimagining the role of population health in nursing education requires educators to challenge traditional approaches to content delivery. Four potential strategies for incorporating population health concepts throughout a curriculum include emphasizing context, honoring community voices, cultivating community connection, and fostering leadership in social responsibility. Relevant current events may also provide opportunities to emphasize relevance and importance (see Table 1). These strategies may serve as a starting point as faculty transition their courses to more fully address population health. It is important to acknowledge that not all nursing faculty may feel comfortable with population health nursing concepts and skills and this transition may at times feel uncomfortable. These strategies are recommended as first steps for curriculum integration, but nursing programs will benefit from having expert population health nurses available to support implementation, lead population or public health courses, and serve as a resource for students and faculty.

#### ***Emphasize Context***

Nursing students should appreciate the multitude of systems patients, families, and populations exist within. Social ecological frameworks can be a useful lens for students to

explore a variety of physical and environmental influences on individual and community health.<sup>15</sup> A variety of ecological theories are used in community and public health, including Bronfenbrenner's Ecological Systems Theory<sup>16,17</sup> and an ecological model for health promotion.<sup>18</sup> These frameworks can be used as a tool to stimulate discussion and reflection related to systems thinking, health equity, social determinants of health, and policy. While Ecological Systems Theory is often associated with child development scenarios, it can be applied to a variety of ages and situations. Educators can guide students to identify various relevant ecological systems, how they influence individual, family, and community health, and how various policies can promote change. Potential applications across the curriculum include:

- Mapping a patient situation to an ecological framework as part of clinical or simulation prework or debriefing.
- Considering an ecological framework as part of case study scenarios conducted in class.
- Asking students to identify relevant ecological systems for characters during art or media-based experiences, such as after watching a documentary or short film.
- Leading discussions on how a particular policy change may influence the ecology and health outcomes of individuals, families, and/or communities, highlighting issues of equity and social determinants of health.
- Having students reflect or journal about the connections between ecological systems, with emphasis on how a change in one system may ultimately alter health outcomes of individuals, families, and/or communities.

### *Honor Community Voices*

Effective population health practice relies on respecting and sharing power with the larger community. Students must learn that honoring and elevating community voices is not relegated to a topic in one course, it is critical to achieving better population health outcomes and is a part of all nursing practice. Clinical partners could be invited to be active in student development when feasible. Honoring the presence of community voices in all nursing courses can provide an opportunity to reinforce the seven key population health concepts recommended to be threaded through curricula by Gorski, Polanski, and Swider.<sup>14</sup> Strategies to honor and elevate community presence in all nursing courses include:

- Inviting community members to listen and provide feedback for student presentations and project displays. If community members, particularly those working in high-needs areas, are unable to attend events on campus, consider opportunities for students to present relevant information and receive feedback in locations outside of campus.
- Inviting community members affected by relevant conditions to share their story when content is covered in class, discussing both inpatient care and other aspects of their life and condition.
- Having students conduct windshield surveys as part of class or clinical work. Students can then share their findings with community members and receive feedback on their conclusions.
- Identifying community organizations or groups that are working toward social or health goals relevant to course content. Students can partner with these organizations for

service-learning experiences or invite community organizations to share during class time.

- Cultivating partnerships with a diverse group of educators, including those outside of healthcare, such as educators who teach education, business, or social work. Exchange guest lecturing opportunities to help students understand the roles of different community members.
- Utilizing diverse community spaces for clinical experiences and allowing students to work with patients experiencing chronic health conditions in a variety of contexts. This may involve broadening approved sites for clinical rotations.

### ***Cultivate Community Connection***

Cultivating a deeper sense of community connection through powerful classroom experiences can be an effective way to approach population health concepts. Nursing students often establish relationships with individuals and families through careful listening and thoughtful communication. Nurse educators can also help students listen to communities through exposure to a variety of voices, stories, and histories. Technological innovations provide nursing students with opportunities to create connections with people that would not have been feasible otherwise. Nurse educators can also promote a richer understanding of disparities and connections among subgroups through the thoughtful reflection on community data. Students can explore strategies to best meet the needs of vulnerable populations through the analysis of datasets from different perspectives. For example, researchers utilizing big data have been able to identify the impact of weather changes on the demand for ambulance services and help-seeking behaviors from older adults.<sup>19</sup> Exposure to a variety of data, including big data, can give students the opportunity to discuss precision public health, which is a new field that enables precise public health analyses and strategies.<sup>20</sup> Nursing students who have a deep understanding of community health data may be more likely to recognize how their own choices influence community systems and how the community influences their own health outcomes. Students should build understanding and develop connections with communities through personal experiences and critical consideration of a variety of community data sources.

Examples of strategies to enhance community connection in a variety of courses include:

- Identify persons experiencing a health condition relevant to course content in different parts of the country or different parts of the world. Invite them to give a brief talk or take part in a question and answer session using video conferencing. Have students compare how different policies and determinants of health influenced patient outcomes.
- Incorporate photo essays in student assignments.<sup>21</sup> Students can create photographs in public spaces of topics related to prevention or management of health conditions discussed in class.
- Allow students to review online epidemiologic data repositories such as the County Health Rankings<sup>4</sup> or local vital statistics to review data relevant to course content.
- Allow students to “shop” online for various supplies and medications relevant to health conditions being covered in class and have students discuss or journal about what these costs might mean for patient, family, and community outcomes.

- Encourage students to be critical consumers of information by personally evaluating data when possible. Have students identify a relevant report in the news or local media, then identify and evaluate the data sources used in the report.

### ***Foster Leadership in Promoting Social Responsibility***

Nurse educators must continue to increase emphasis on developing leaders in promoting social responsibility at the local, national, and international levels. It is crucial that skills and competencies related to social justice, policy, and advocacy are reinforced in every class in a nursing curriculum. Nurse educators can promote the development of social justice awareness in various ways, including both community experiences and critical conversations. Social capital as a mediator between social inequities and health can be critically discussed.<sup>22</sup> Policy development, analysis and advocacy are key roles and competencies in nursing, and this can take place in various settings.<sup>23</sup> Strategies to incorporate this knowledge across nursing courses include:

- Have students review legislation being proposed in the current state or national legislative session and discuss how health is considered or impacted in these legislative decisions. Utilizing the Health in All Policies as a guide could also be incorporated.<sup>24</sup>
- Have students engage in community service-learning experiences based on critical social theory, a model that focuses on building connections between community partners and students.<sup>25</sup>
- Have students search online to identify various public advocacy initiatives related to course topics, such as the Healthy Air Campaign by the American Lung Association.<sup>26</sup> Have students discuss these as part of clinical or simulation pre-work or debriefing.
- Invite community members and researchers participating in community engaged research relevant to course concepts to speak or provide a recorded presentation for class.
- Have students simulate facilitating difficult conversations about addressing social determinants of relevant health conditions through community intervention.

### **Next Steps for Population Health Education in Nursing**

Nurses have an essential role to play in improving population health outcomes, and educators must continue to explore how to best promote competency in core population health concepts. The 2019 coronavirus outbreak has heightened awareness of the importance of population health throughout the world, and a unique opportunity has emerged to capitalize on support for developing these skills in our workforce. However, increased attention to incorporating population health concepts throughout nursing curricula is just one step in the effort to transform population health in nursing education. Broader changes are needed to ensure nursing potential in community and public health settings are fully realized. Increased funding for population health nursing education research needs to be available to develop a stronger evidence-base for population health in nursing education. Increased funding also needs to be made available for public health workforce development research, including further development of public health nurse residency programs. Licensure exams need to go beyond traditional approaches and assess for both community and public health competency. And finally, certification should be available to help distinguish the distinct role of community and public

health nurses. The former Advanced Public Health Nurse certificate was retired and replaced with a general Certificate in Public Health, which does not mention nursing and is not accredited by the American Nurses Credentialing Center. The unique contributions of the public health nursing role may risk being undervalued without a discipline-specific pathway for recognition. While all nurses should be equipped with basic understanding and competency in core population health skills, it is important to remember that this unique specialty area is much larger than what can be approached in a standard nursing curriculum. Acknowledging the depth and importance of this specialty through a nursing certification exam is critical to promoting the development of the population health nursing workforce and distinguishing expert nurses in the field.

Population health must be reenvisioned in nursing education. Nurturing the development of these competencies throughout nursing curricula is an important step in this process. All nurse educators can incorporate population health concepts within their classes and prepare students for higher levels of achievement in courses related specifically to population or public health. Further attention needs to be placed on the development of a strong evidence-based and population health infrastructure to support population health nurses throughout all stages of professional development.

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