Promoting and strengthening public health through undergraduate education

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Abstract

There are widely divergent views as to what constitutes “public health” and “public health research”. But regardless of these views, readers of this journal would likely agree that public health matters; we assert that so does the educational programming that prepares its workforce. Our voiced perspectives as authors are influenced by our respective training, occupations, and academic locales, and we believe that undergraduate public and population health education (UGPPHE) across many disciplines is crucial to strengthening public health in Canada. Existing literature and discourse related to UGPPHE in Canada tends to be concentrated around its ancillary positioning within clinical health disciplines such as medicine, nursing, and dentistry, rather than on the evolution of undergraduate degree programs. While UGPPHE programming has the important function of preparing undergraduates to enter into practice as public health professionals, it has added virtue in its capacity to improve public health literacy and produce a more robust body of informed and engaged citizens. The intent of this commentary is to draw increased attention towards the other disciplines less well known for bringing awareness to UGPPHE in Canada and to commence what will hopefully be a cascade of dialogue from stakeholders across the nation.

Résumé

Les opinions sur ce que représentent la « santé publique » et la « recherche en santé publique » sont très divergentes. Mais quelles que soient ces opinions, les lecteurs de cette revue conviendront sans doute que la santé publique importe; nous affirmons que les programmes d’enseignement qui préparent la main-d’œuvre en santé publique importent aussi. Les points de vue que nous exprimons en tant qu’auteurs sont influencés par notre formation, notre profession et le lieu géographique de nos établissements d’enseignement respectifs, et nous croyons que l’enseignement de premier cycle en santé publique et des populations (EPCSPP) dans plusieurs disciplines est essentiel au renforcement de la santé publique au Canada. La littérature et le discours actuels sur l’EPCSPP au Canada ont tendance à s’articuler autour de sa complémentarité avec les disciplines cliniques de la santé, comme la médecine, les sciences infirmières et la dentisterie, et non de l’évolution des programmes de premier cycle. Les programmes d’EPCSPP ont l’importante fonction de préparer les étudiants à devenir des professionnels de la santé publique, mais ils ont le mérite supplémentaire d’améliorer la compétence informationnelle en santé publique et de produire un corps plus robuste de citoyens informés et engagés. Dans notre commentaire, nous voulons attirer l’attention sur d’autres disciplines moins connues pour sensibiliser le public à l’EPCSPP au Canada, et amorcer ce qui deviendra, du moins l’espérons-nous, une cascade de dialogue entre les acteurs de tout le pays.

Keywords Public health · Undergraduate education · Population health education · Public health literacy

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Introduction

Despite the rise of undergraduate public and population health education (UGPPHE) degree programming in Canada, there is a surprising dearth in Canadian literature related to its place, value, purpose, and direction. Many countries have published research, commentaries, curriculum recommendations, and reports, specific to undergraduate public health education, and continue to do so. Existing literature and discourse related to UGPPHE in Canada, however, tends to be concentrated around its ancillary positioning within clinical health disciplines such as medicine, nursing, and dentistry, or specialist undergraduate public health education such as in environmental health/public health inspection (EH/PHI), rather than on the evolution of undergraduate degree programming specific to public health. The intent of this commentary is to draw increased attention to and invite dialogue about UGPPHE in Canada.

Background of UGPPHE in Canada

Recent publications in the *Canadian Journal of Public Health* (CJPH) have emphasized the “weakening” of public health in Canada and have called for renewed efforts by governments and citizens to uphold and support its work as a matter of life and death (Guyon et al. 2017; Hancock 2017; Potvin 2014). To do this, it is essential that we continue to deliver quality public health education within clinical health disciplines (e.g., Medicine and Nursing), as well as acknowledge existing programs designed to train practitioners in specific areas of public health (e.g., Environmental Health Officers and Public Health Inspectors). We submit, however, that supporting and strengthening generalist public health bachelor programs and courses is another avenue by which we may effectively strengthen public health in Canada. Undergraduate public health degrees have the potential to generate a body of students who are engaged, motivated, and literate in foundational concepts of public health, who have developed fundamental skills for practice, and who have chosen to pursue public health as their primary area of focus.

The Institute of Medicine (IOM) declared that all citizens should understand what public health is so that they might share in the responsibility of managing it (IOM 2003). The IOM further asserted that in order to achieve this, every undergraduate should have access to education in public health. This belief, coupled with calls from governments to build capacity and strengthen the public health workforce in Canada (Health Canada 2003), has drawn attention to

opportunities for expanded educational programming in public health, including at the undergraduate level (Canadian Institutes of Health Research 2003; Joint Task Group on Public Health Human Resources 2005; The Association of Faculties of Medicine of Canada 2009).

The authors acknowledge that courses and concepts associated with public and population health have long existed within the context of specialist (EH/PHI) undergraduate degree programs and also in other undergraduate degree programs in Canada (e.g., Kinesiology, Health Sciences, Community Services, Liberal Education). Specific examples of the latter include the existence of the University of Waterloo BSc in Health Studies for 40 years, and the teaching of public health concepts in one core course at the University of Calgary Faculty of Kinesiology for over 30 years (Grewal and Doyle-Baker 2017). Despite this, the practice of training undergraduates explicitly as public health generalists has only recently become an option in Canada, with one of the first Public Health bachelor's degree programs being established at the University of Lethbridge in 2009. Since then, other generalist undergraduate public health programs have emerged and continue to do so in academic institutions across the country. It is disappointing, however, that published literature and public dialogue surrounding undergraduate public health programs have been meagre, and their membership and involvement in the nation's *Network of Schools and Programs of Public and Population Health* (NSPPPH) minimal.

UGPPHE cultivating informed and engaged citizenry

While UGPPHE programming has the important function of preparing undergraduates entering into practice as public health professionals, it has added virtue in its capacity to improve public health literacy and produce a more robust body of informed and engaged citizens. Public health is a discipline which is often misunderstood and/or poorly articulated in public discourse, even sometimes by those actively engaged in its practice. As a result, we are left with a populace which lacks understanding of the roles and functions of public health, making it difficult to effectively contribute to its work. This is problematic given that the success of public health in bringing about social good through improved health outcomes is dependent on “the organized efforts of society” (Acheson 1988), “collective action by society” (Last 2006), and “partnerships with citizens, NGOs, municipalities, and others” (Guyon et al. 2017). Without citizens who comprehend its definition, goals, and practices, the success of public health can be limited.

Historically, public and population health education has been delivered at the graduate level and undergraduate level in EH/PHI education, as a specialty area within clinical health disciplines, or as supplementary training within employment settings. As such, it is a field that remains vague and/or obscure for those who have not been exposed to it via these routes. Advancing UGPPHE programming—through full degrees, minors, and/or elective courses—has the potential to expose large numbers of students to the discipline’s depth and breadth, and prepare them with foundational knowledge and competencies to effectively support public health efforts, regardless of their future career or educational trajectories (Holsinger et al. 2015). Well-designed and delivered UGPPHE also has the potential to produce citizens more capable of thinking critically about complex health problems, better able to identify unique health needs of diverse populations, conscientious when consuming health literature, and familiar with concepts of health equity, and who value and engage in cross-disciplinary collaboration. In short, these students become citizens who are more aware and concerned with all the conditions that interact and intersect to influence health outcomes. This is emphasized by Merzel and D’Afflitti (2003) who point out that students become engaged when information related to population health shifts emphasis from individual focused explanations of health behaviour to ones that encompass social and environmental influences as reflected in ecological models of health. As a result of engagement and learning, the health of Canadians can be positively impacted because there will be a broader population prepared to defend and support the work of public health.

UGPPHE illuminating student educational and career paths

James Flint, former manager and senior epidemiologist of the Public Health Agency of Canada, “stumbled on [his] career niche” after receiving an undergraduate degree. He states, “I didn’t start university with public health in mind” (phspot 2018), and this is likely true for many Canadian students as they enter their first year of post-secondary studies. By offering specific programming in undergraduate public health, particularly if its core courses are made available across faculties, students gain exposure to the discipline early in their educational pursuits. This is exemplified at the University of Lethbridge where the required course in the undergraduate public health degree titled: *Introduction to Public Health* is listed as a first-year liberal arts elective. In the 2017–2018 academic year, 72% of its registrants were non-Health Science majors. Courses like this serve as a means for students to explore the option of a public health undergraduate degree, or as a potential minor to complement their primary program of study. Recognizing that many students will not necessarily

choose to complete an undergraduate degree in public health, these courses still serve to orient students to the philosophical and practical bases of public health, which may become the catalyst to their pursuing either a master’s degree in public health (MPH) or other related graduate programs.

Students entering graduate programs, particularly a MPH, will have an advantage with a prior foundation in public health because they will be better positioned to tailor their learning to more specialized and advanced areas within public health. An UGPPHE also establishes a fertile ground for graduate programming to flourish, opening the door to even more in-depth and challenging opportunities for students who do not require an introduction to foundational concepts in public health. UGPPHE may also impact the types of graduate programming available, laying a path for the establishment of accelerated or combined degree graduate programs.

UGPPHE does not come to Canada without presenting evolving challenges—particularly that of better articulating the uniqueness of purpose, direction, and outcomes between undergraduate and graduate level public health programming. Dialogue, networking, and collaboration through appropriate avenues are important so that institutions can successfully cultivate the most educated and qualified public health graduates possible. This sentiment is echoed by Lee (2008), who endorsed collaboration between MPH and undergraduate public health programs, recognizing the unique contributions of both in the education of future public health professionals.

Conclusion

Readers of the CJPH would likely agree that public health matters; we assert that so does the educational programming that prepares its workforce. Our perspectives as authors are undoubtedly influenced by our respective training, occupations, and academic locales, but we believe that UGPPHE is crucial to strengthening public health in Canada. Regardless of a student’s eventual career choice, we can increase and support public health literacy by exposing students early to the discipline, preparing a citizenry that can more effectively engage in upholding public health’s purposes, and amplifying the potential for graduate-level training. Certainly, public health as a discipline and practice has always embraced and relied upon interdisciplinary collaborations, and drawn from cross-divisional practices and approaches to successfully meet the health needs of populations. UGPPHE can enable and encourage such collaboration and can, therefore, make an important contribution to a future of improved health for all Canadians.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Disclaimer The views expressed in this commentary are reflective of the authors' own position and not official positions of their respective institutions.

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