A Look to the Past as We Look Ahead: The Specialty of Public Health Medicine in Canada

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ABSTRACT

In February 2011, the medical specialty of Community Medicine was renamed as Public Health and Preventive Medicine (PHPM) to better reflect the roles and responsibilities of physician specialists in this field. While physician involvement in public health began in the early 20th century, the development of the formal PHPM specialty has closely paralleled the evolution of the Royal College of Physicians and Surgeons of Canada. At present, despite shortages identified in light of public health crises, recent specialist graduates in PHPM have reportedly experienced some difficulties finding optimal employment. This paper reviews the history and current situation of PHPM specialists, raising awareness of the issues in order to promote greater specialty planning coupled with improved integration and collaboration between clinical services and public health initiatives.

KEY WORDS: Public health; preventive medicine; community medicine; history of medicine; education, medical; specialty, medical

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The Canadian medical specialty of Public Health was first recognized by the Royal College of Physicians and Surgeons of Canada (RCPSC) in 1947,¹ though Canadian physician involvement in public health began as early as 1883 when Dr. William Canniff was appointed as Toronto's Medical Officer of Health (MOH).² An expanded RCPSC mandate to accredit university-based training programs led to the creation of Community Medicine in 1976,³ with a further renaming to Public Health and Preventive Medicine (PHPM) in February 2011 to more clearly reflect the training and day-to-day work of physician specialists in the field.⁴

Despite the public health events of Walkerton, North Battleford, SARS, and H1N1, it has been nearly three decades since literature explored the state of Canada's public health medical specialty,¹ which is defined as "the branch of medicine concerned with the health of populations."⁴ The objective of this commentary is to review the current challenges facing the medical specialty of public health in the context of today's population health challenges as well as the specialty's history and development.

Growth of a specialty

Physician involvement in public health dates back to the early 19th century in Britain. Edwin Chadwick's "The Sanitary Condition of the Labouring Population" (1842) was an early report suggesting a link between social conditions and health, which followed the experiment of physicians serving as "health officers" during the early 19th century Irish fever epidemics.⁵ However, it was not until 1847 that Dr. William Henry Duncan was appointed the first Medical Officer of Health (MOH) of Liverpool – the first such instance in the United Kingdom (UK).⁶ The Public Health Act of 1872 ultimately mandated the appointment of local MOHs throughout the UK.⁷ These physicians practiced population health as a profession-

al interest, with little formal public health training being available at the time. Similar positions were soon enacted within local public health boards in Canada, notably with the appointment of Dr. William Canniff as Toronto's MOH in 1883.^{2,8}

Formal Canadian recognition of the specialty of public health medicine paralleled the founding and growth of the RCPSC. Founded in 1929, the RCPSC provided certification of Canada's two initially recognized specialties: medicine and surgery.⁹ The specialty of public health medicine was recognized by the RCPSC in 1947, with certification being granted by examination.¹⁰ This designation resulted in the grandparenting of 106 specialists in 1951 and an additional 62 physicians being certified from 1951-1971, with approximately 3 to 4 candidates passing the public health examination each year.¹

In the 1970s, the RCPSC extended its mandate from simply being an examination-certification body to being the body overseeing all aspects of medical specialty training, accreditation and certification. One result of this transformation was that all residency programs were required to operate under the auspices of a Canadian Faculty of Medicine.¹¹ This requirement, however, posed challenges for the specialty of Public Health, which at the time lacked an obvious university-based academic home.

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A “social and preventive medicine” culture in the post-war UK led to recognition of the specialty of Community Medicine in 1972 for “physicians specialising in public health, medical administration, and related teaching and research.”¹² At that same time, the RCPSC specialty committee for public health decided to pursue the creation of faculty-based training programs in preventive medicine which would follow initial clinical training. Similar to in the UK, these specialty programs were named “Community Medicine”.³ Initial training programs, attached concurrently to a medical school and school of public health, subscribed to the same requirements that form the basis of today’s specialty training: at least one “basic clinical year”; at least one year of relevant coursework, often as graduate education leading to a public health diploma or master’s program; and at least one year of field-based public health rotations/placements.¹³

Following the first Community Medicine certification examinations in 1976, the early 1980s saw several training programs come of age during an anticipated workforce crisis. A 1981 Health and Welfare Canada survey across nine Canadian provinces (Quebec was not included) found 18 vacant MOH positions, with only 17 of 122 full-time MOHs (14%) holding RCPSC-specialist certification in Community Medicine despite four provinces offering salary incentives to certified specialists. The majority (60%) of the MOHs studied were over 50 years of age, and only 1% of medical students interested in specialty training identified Community Medicine as their specialty of choice.¹³

Efforts to recruit trainees continue to focus on a few strategies. A limited number of already practicing physicians “re-enter” PHPM specialty training, and residents training in other specialties occasionally “laterally transfer” to PHPM. Little data exist regarding these routes of entry, however; the majority of recruitment still occurs by admitting trainees directly from medical school. Canadian Residency Matching Service (CaRMS) data from the mid-1990s to present indicate this recruitment remains challenging, with a steady annual rate of 1% of Canadian medical graduates applying to the specialty and no more than four students from any medical school graduating class being matched to the specialty. Despite program expansion, the number of Canadian graduates matching to the specialty remains relatively consistent at about 13 annually.¹⁴

Today’s challenges

Today’s PHPM specialty faces several challenges in addition to recruitment. One aspect is the scope of PHPM training, with the current RCPSC PHPM training objectives listing potential practice in traditional public health, health administration and leadership, clinical practice focusing on health promotion and disease prevention, occupational and environmental health, and teaching and research.⁴ As such, PHPM specialists may engage in clinical care and/or population health practice. While both are involved in some practice settings (e.g., tobacco cessation, sexually transmitted infections, travel medicine), there are occasions where PHPM physicians must balance population health needs with an individual patient’s autonomy and beneficence. As such, it remains important for PHPM trainees to continue receiving training in both primary care and public health, to allow them to gain experience and expertise in such conflicting situations.

While recent public health crises have led to the approval of new residency programs and increased residency training positions, it

has also highlighted the importance of multidisciplinary training in public health. A recent *Lancet* article called on the incorporation of interdisciplinary practice into physician training, with notable applications specifically for PHPM training.¹⁵ Historically, MOHs have traditionally served as a health unit’s administrative leader, with the majority of front-line public health work being carried out by public health staff trained in other disciplines (e.g., nurses, public health inspectors, epidemiologists, and social workers). As such, PHPM training requires a balance between substantive detail and broader organizational aspects, emphasizing collaborative skills and practical experiences in this multidisciplinary environment to best prepare specialist-graduates for their eventual practice roles and promote more effective deployment.

PHPM training continues to be challenged by an ongoing debate regarding whether specialists are necessary to fulfil the local role of MOH. For such positions, most provincial legislation does not require PHPM specialty certification, but rather only a medical degree with graduate training in public health (e.g., a MPH).¹⁶ However, provincial medical licensing bodies, notably in Ontario, require an assessment of scope of practice change if a physician entering an MOH role does not have PHPM specialty training, even if they meet the legislative minimum.¹⁷ The ability of generalist physicians to serve as MOHs potentially makes PHPM less desirable to Canadian medical graduates, and contributes to the range of qualifications held by Canadian public health physicians. In an effort to identify the minimum competencies required by MOHs, the Public Health Agency of Canada published a report developed by a pan-Canadian working group.¹⁸ Further information regarding this diversity of practice was provided by the 2004 National Physician Survey and its section on professional activities, which indicated that PHPM specialists were more frequently involved in governmental public health, medical education, administration, and epidemiology and biostatistics.¹⁹

The interface between primary care and public health remains a potential area to support the work of PHPM specialists. Primary care was identified as an important channel for public health initiatives (e.g., immunizations and screening), a source for clinical expertise, as well as a front-line “window” for the identification of public health threats, while public health had roles in providing preventive services to select groups of patients, support and programming in areas of public health expertise, and collaboration with primary care providers and other partners to promote healthy public policy.²⁰ Future efforts should be made to embed critical PHPM efforts in day-to-day settings (e.g., schools, workplaces, and community centres).

Finally, workforce planning remains a significant challenge. The public health crises of the past decade have renewed interest in ensuring that there will be adequate numbers of trained PHPM specialists to provide this unique expertise. The 2002 Walkerton Inquiry highlighted that 7 of 37 health units in Ontario did not have a full-time MOH,²¹ and a subsequent 2005 Ontario Medical Association report stated that that number had grown to 12 of 36 health units and called on the Ontario government to make public health a priority.²² Similarly, the Naylor Report identified a deficit of public health physicians due to limited training capacity, limited compensation, politics, and bureaucracy.²³ These barriers are consistent with those identified in a 2006 *CMAJ* news article that identified inadequate remuneration, difficult working condi-

tions, confusing lines of authority and governance, and a shortage of residency positions as barriers to recruiting medical school graduates to the specialty.²⁴

Interestingly, despite ongoing concerns surrounding potential shortages, a 2010 evaluation by the RCPSC suggested that PHPM was one of a number of potentially “underemployed and unemployed” specialties, with new graduates reporting some difficulty finding optimal employment. The evaluation’s preliminary findings suggested that the lack of positions available for new PHPM graduates was related to economic drivers, expanded scopes of practice, and contextual factors, including the need for graduates to relocate to fill available positions.²⁵ As such, this underemployment has been suggested at a time when relevant positions are frequently posted and circulated by public health medicine’s specialty society, with over 20 positions being posted between January 1, 2011 and July 31, 2012.²⁶

CONCLUSION

The 2011 PHPM name change represented an important event in a long history of changes to clarify and refine the medical specialty of public health in Canada. However, much work remains, particularly in the context of continuing public health threats such as an aging population, the epidemic of chronic disease, preparing and responding to disasters and emergencies, and emerging infectious diseases.

More than ever, key stakeholders involved in PHPM training and workforce planning need to continue to monitor and, as necessary, revise PHPM specialist practice; promote multidisciplinary public health practice in training and day-to-day work; enhance links between public health and primary care; and address the workforce planning paradox between a finite number of PHPM specialists and perceived underemployment. From Dr. Canniff’s early beginnings, the specialty of public health in Canada continues to build upon an interesting and important history.

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RÉSUMÉ

En février 2011, la spécialité médicale de la médecine communautaire a été rebaptisée « santé publique et médecine préventive » (SPMP) pour mieux refléter les fonctions des médecins spécialistes du domaine. L’implication des médecins dans la santé publique date du début du 20^e siècle, mais la création de la spécialité officielle de SPMP a étroitement suivi l’évolution du Collège royal des médecins et chirurgiens du Canada. À l’heure actuelle, malgré les pénuries mises au jour par les crises de santé publique, on dit que les nouveaux diplômés spécialisés en SPMP ont du mal à se trouver des emplois optimaux. Nous examinons l’histoire et la situation actuelle des spécialistes en SPMP pour mieux faire connaître les enjeux, ceci afin de promouvoir une planification accrue dans cette spécialité, assortie d’une intégration et d’une collaboration améliorées entre les services cliniques et les initiatives de santé publique.

MOTS CLÉS : santé publique; médecine préventive; médecine communautaire; histoire médecine; enseignement médical; spécialités médicales