



COMMENTARY

The integration of primary care and public health to improve population health: tackling the complex issue of multimorbidity

Kathryn Nicholson¹ · Tatjana T. Makovski^{2,3,4} · Saverio Stranges^{1,2,5}

Received: 6 June 2019 / Revised: 6 June 2019 / Accepted: 24 June 2019 / Published online: 4 July 2019
© Swiss School of Public Health (SSPH+) 2019

Forty years after the Declaration of Alma-Ata, primary care and public health have shared a common goal of promoting the health and well-being of all people, but these two disciplines historically have operated independently of one another (Institute of Medicine 2012). While the separation of primary care and public health has long been recognized, new challenges and opportunities are emerging to bring these two sectors together in ways that will yield substantial and lasting improvements in the health of individuals, communities and populations (Institute of Medicine 2012). Primary care focuses on providing medical services to individual patients, while public health focuses on offering a broader range of services to communities that collectively aim to help individuals remain healthy (Institute of Medicine 2012). Primary care deals with conditions that are largely preventable and closely linked to social or environmental causes (i.e. upstream

determinants) (Daniel et al. 2018), as well as bridging the gap between clinical medicine and population health (Galea and Kruk 2019). As noted by the Institute of Medicine (2012), the challenges in integrating primary care and public health are significant, so are the opportunities and rewards. The integration of primary care and public health can occur on a continuum, while ultimately aiming to protect and promote the health of populations (Galea and Kruk 2019; Institute of Medicine 2012). This integration is needed to fully engage with foundational behavioural, social, economical and contextual determinants. Indeed, this integration is needed for one of the most complex health issues: multimorbidity.

Advances in public health and clinical medicine interventions have enabled increased life expectancy in many regions around the world (Academy of Medical Sciences 2018). However, this increased lifespan is not always matched with an increased health span, resulting in the development of individual (and eventually multiple) chronic conditions throughout the life course. Multimorbidity (multiple health issues occurring within the same individual) is among the twenty-first century's major health issues and poses a myriad of challenges for primary care and public health alike (Academy of Medical Sciences 2018; Mercer et al. 2014). Moving beyond the health challenges and economic burden of individual chronic diseases, the escalating prevalence of multimorbidity will lead to a substantial increase in demands on our society in the near future, testing sustainability of health care and welfare systems worldwide (Mercer et al. 2014). Individuals living with multimorbidity often manage complicated treatment regimens that can include multiple appointments, multiple medications, regular monitoring and adherence to different treatment and management protocols (Academy of Medical Sciences 2018; Xu et al. 2017; Mercer et al. 2014). Furthermore, socio-economic and healthcare access inequalities must be overcome, particularly for those living in transition or refugee settings (Jankovic et al. 2018; Saleh et al. 2018).

✉ Kathryn Nicholson
kathryn.nicholson@schulich.uwo.ca

Tatjana T. Makovski
tatjana.makovski@lih.lu

Saverio Stranges
saverio.stranges@uwo.ca

¹ Department of Epidemiology and Biostatistics, Schulich School of Medicine and Dentistry, Western University, 1151 Richmond Street, London, ON N6A 3K7, Canada

² Department of Population Health, Luxembourg Institute of Health, Strassen, Luxembourg

³ Department of Family Medicine, Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, The Netherlands

⁴ Chairgroup of Complex Genetics and Epidemiology, Nutrition and Metabolism in Translational Research (NUTRIM), Care and Public Health Research Institute (CAPHRI), Maastricht University, Maastricht, The Netherlands

⁵ Department of Family Medicine, Schulich School of Medicine and Dentistry, Western University, London, ON, Canada

The ever-growing interest in studying and addressing multimorbidity comes from the need to provide better care and treatment to the increasing numbers of people who are suffering from this issue, either from the direct symptoms of the chronic conditions or from the indirect side effects of disease–disease, disease–drug and/or drug–drug interactions (Nicholson et al. 2019; Calderón-Larrañaga and Fratiglioni 2019; Academy of Medical Sciences 2018; Mercer et al. 2014). There are shared lifelong risk factors like physical inactivity and poor diet that may underlie the development of multimorbidity and present points of intervention and prevention for primary care and public health (Calderón-Larrañaga and Fratiglioni 2019; Mercer et al. 2014). Additionally, psychosocial factors such as low socio-economic status, negative life events, weak social networks and social injustice are more complicated, but necessary, intervention points. Due to complexity in the causes and consequences, multimorbidity represents a case example of why primary care and public health need to work together: emphasizing a multisectoral approach that includes comprehensive health services and support services like increasing health education and literacy levels, mental health and social support and improved living conditions (Academy of Medical Sciences 2018). Primary care facilitates a micro-level source of intervention through patient-centred healthcare delivery, while public health facilitates a macro-level source of intervention through changes in health behaviours and addressing the upstream determinants of chronic disease. Surely, we cannot find a successful and sustainable answer to this issue without one or the other, but instead both micro- and macro-level integration is necessary.

The increased focus on multimorbidity ultimately challenges the current paradigm of healthcare delivery in many countries around the world, spanning the low-, middle- and high-income countries. Addressing key risk factors, including social determinants of health, and encouraging engagement in health care and health behaviours will create positive impacts on the quality of life for individuals, families and communities, as well as positive impact on societal productivity. To make the most concentrated and sustained changes, primary care and public health must

be purposeful and persistent with their integration to manage and prevent this substantial issue now and into the future.

Compliance with ethical standards

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

References

- Academy of Medical Sciences (2018) Multimorbidity: a priority for global health research. Academy of Medical Sciences, London
- Calderón-Larrañaga A, Fratiglioni L (2019) Multimorbidity research at the crossroads: developing the scientific evidence for clinical practice and health policy. *J Intern Med* 285(3):251–254
- Daniel H, Bornstein SS, Kane GC (2018) Addressing social determinants to improve patient care and promote health equity: an American College of Physicians Position Paper. *Ann Intern Med* 168:577–578
- Galea S, Kruk ME (2019) Forty years after Alma-Ata: at the intersection of primary care and population health. *Milbank Q* [Epub ahead of print]
- Institute of Medicine (2012) Primary care and public health: exploring integration to improve population health. Institute of Medicine, Washington, DC
- Janković J, Šiljak S, Erić M, Marinković J, Janković S (2018) Inequalities in the utilization of health care services in a transition European country: results from the national population health survey. *Int J Public Health* 63(2):261–272
- Mercer S, Salisbury C, Fortin M (2014) *ABC of multimorbidity*. Wiley-Blackwell, Oxford
- Nicholson K, Makovski TT, Griffith LE, Raina P, Stranges S, van den Akker M (2019) Multimorbidity and comorbidity revisited: refining the concepts for international health research. *J Clin Epidemiol* 105:142–146
- Saleh S, Alameddine M, Farah A, El Arnaout N, Dimassi H, Muntaner C, El Morr C (2018) eHealth as a facilitator of equitable access to primary healthcare: the case of caring for non-communicable diseases in rural and refugee settings in Lebanon. *Int J Public Health* 63(5):577–588
- Xu X, Mishra GD, Jones M (2017) Evidence on multimorbidity from definition to intervention: an overview of systematic reviews. *Ageing Res Rev* 37:53–68

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.