

Preparing for a More Public Health-Aware Practice of Medicine in Response to COVID-19

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After one year in a pandemic, we mourn the loss of over half a million lives in the United States, and over four million worldwide, and remain concerned over the challenges facing the families of 35 million people in the United States, and 200 million worldwide, who have suffered from cases of COVID-19. The public and the practice of medicine has become aware of the field of public health and the important roles of all health professionals in addressing the pandemic [1,2]. Our way out of this pandemic will not be led by public health, medicine, or another field alone. It will take a concerted and coordinated effort, which may thereafter change the practice of medicine to include more components of public health. Involvement of physicians and other health professionals in public health, will involve recruiting, training, and sustaining a workforce that is knowledgeable and capable of addressing complex issues [3]. Recruiting implies bringing practitioners into public health who might have previously been unaware, or insufficiently aware, of the field of public health and the importance of its work. Training implies offering the combination of knowledge and skills that enable practitioners to make important contributions. Sustaining implies training and programs that meet the needs of the present while enabling the continuation of efforts over time.

More so than many other fields of medicine, COVID-19 has significantly impacted cardiology. During the first and second waves of COVID-19, elective services and appointments were cancelled [1,4], perhaps by as much as half [5], and patients presented later after the onset of symptoms [6,7]. At the same time, it is recognized that COVID-19 is associated with increased risk of stroke [8], and other cardiovascular events and complications [9]. There is much that cardiologists have had to learn clinically about treatment of patients with COVID-19 [10].

And, there is much that public health and other fields of medicine should be doing to assist patients at risk for cardiovascular events [11].

With the public and physicians more aware of public health, there has perhaps not been a better time to engage the medical profession in public health training, be it through formal or informal programs. For students still in medical school, the curriculum may include more basic public health information, particularly as it relates to socio-ecological root causes of health [12,13]. The curriculum may also include work on alternative modalities of engaging patients, such as telemedicine [14]. In addition, medical students may learn more about the importance of public health as an integrated member of an interprofessional team (Liaison Committee on Medical Education accreditation standard 7.9). The Accreditation Council for Graduate Medical Education already includes competencies related to teamwork and specifically interprofessional education for residents (IV.A.5.f; VI.A.1.a; VI.E.2). For students in post-graduate training programs, there are a host of challenges to be overcome just to complete all of the necessary competencies [15,16]. It may not be immediately feasible, but building upon current interprofessional education and practice-based training can aid in the understanding of public health and prepare students for the field of public health when COVID-19 is over [1,17].

For physicians already in practice, there are both short-run and long-run public health skills to be developed in response to COVID-19. Immediately, every physician is being called upon to address patients' questions regarding appropriate safeguards generally, and vaccination in particular [18]. Answers to basic questions can provide assurance to patients and minimize hesitancy [19]. Further,

expressions of the importance of treatment when faced with symptoms is essential to limit the life-threatening effects of delayed care [20].

Providing long-run skills and sustaining the focus on public health efforts is a joint responsibility of practitioners, public health and medical care organizations. Academic public health can assist by providing opportunities for life-long learning through better integration with continuing medical education efforts. In particular, through the American Association of Continuing Medical Education criteria for addressing public health priorities and promoting team-based education, we can engage with continuing medical education providers to bring their status to “accreditation with commendation”. We recognize the importance of making public health training available to current health professionals who may lack the full complement of knowledge and skills required to optimally respond to this pandemic and prevent future pandemics. Advances in public health research can provide practitioners with an expanding set of tools to improve patient communication and provide evidence-based recommendations. Interprofessional education and practice-based learning provide skills that enable career advancements while leveraging the evidence and assets, especially in an environment of Public Health 3.0 [21]. Public Health 3.0 adds to the core of public health and emphasizes cross-sector collaboration, systems-level action under the model of a chief health strategist to bring these stakeholders together to improve health outcomes and work towards health equity.

To target training and sustain knowledge and skills, provider organizations (hospitals, health systems, etc.) will need to be partners with public health. At the broadest level, there are calls for training all physicians in the business of healthcare [22], and emergency preparedness [23], to help manage the myriad challenges that arise for an organization during a pandemic. These topics will add to those public health topics with foundational linkages to preventive cardiology such as nutrition [24,25], exercise [26], mental health [27], and risk communication [28]. Over time, physicians and other health professionals could work with academic organizations to jointly develop public health integrated knowledge [29].

In conclusion, there is a strong history of the importance of prevention in cardiology; human behaviors clearly impact health outcomes of cardiac patients. Now is the time to build upon this foundation to solidify the beneficial relationship of public health and cardiology. Training and sustaining will be essential as our pipelines of students provide ever emerging opportunities for joint efforts and technology aids in overcoming traditional barriers to collaboration. This “partnership of prevention” can allow for symbiotic growth of both fields to be ready for the next health challenge, chronic or acute.

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