We Can Choose NOT to Fail

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When Editor-in-Chief Lloyd Novick invited me to write a commentary, I suggested I could title this, “I Have Failed,” and then proceed to write about all the ways I have fallen short in the time of COVID-19. In his wisdom, Dr Novick pulled me back and encouraged me to consider what we can still do now and how we can prepare for future pandemics. In my 30 years in public health—16 years on the front lines in public health practice and 14 years now in academia—I have never experienced anything like this, even overshadowing the impact of 9/11 and anthrax. For much of my academic career, working most frequently with my closest collaborator, Dr Ross Brownson from Washington University in St Louis, I have focused on the Academic Health Department (AHD)—the formal partnerships between practice and academia that provide mutual benefits across teaching and curriculum development (practice-informed teaching), student involvement (internships and future sites of employment), and faculty engagement (practice-based research). It is in this context that I want to frame this commentary about what we can still do in response to COVID-19, and how we might be better prepared in the future.

What Can Students Do Now?

I believe there are 3 areas of activities where students can contribute significantly, and I hear from my colleagues in areas across the country that many are doing these now:

1. Conducting contact tracing and disease reporting. For the most part, this can be conducted by telephone, with electronic entry in reportable disease surveillance systems. In a course I helped develop at the University of Tennessee—the Student Outbreak Rapid Response Training—students showed high levels of both interest and competency in actually conducting this work, during routine activities as well as in a real disease outbreak investigation mode. Other colleagues in academia have provided similar training and real-time experiences for students, including the Team Epi-Aid described by Horney et al. The contact tracing and disease reporting need not be confined to COVID-19; in fact, students may be able to contribute best by relieving health department staff of the routine contact tracing and disease reporting, the needs for which do not stop simply because COVID-19 is upon us.

2. Staffing a phone bank/call center, to serve as both an information clearinghouse and to direct callers to appropriate resources, including testing. Health department staff have been overwhelmed with calls, most of which can be addressed by students trained and equipped with appropriate scripts. We have the technology to remotely staff such phone banks—and to do contact tracing—and still comply with orders to shelter in place. Communicating audience-appropriate public health content is a core competency for the Master of Public Health.

3. Conducting active surveillance regarding availability of intensive care unit beds, ventilator availability, and changes in the daily count of new respiratory symptoms in nursing homes and assisted living facilities. While many local health departments (LHDs) have passive surveillance systems that include these critical data points, passive surveillance in a time of crisis is insufficient. Again, as with the other student activities described earlier, active surveillance can be conducted by telephone, while sheltering in place.

While we may reflexively think about the large LHDs or state health departments as being the logical “workstation” (virtually) for students, we should not underestimate the impact of the epidemic on smaller LHDs, which comprise the largest portion of LHDs.
nationwide. In such LHDs, often with a staff of 10 or less, it is usually a public health nurse who has been assigned to be the “epi nurse” and who handles all of the local disease investigation and reporting activities. She is being overwhelmed with COVID-19, while trying to attend to other needed services.

What Can Faculty Do Now?

I can identify at least 3 areas for immediate faculty engagement:

1. Serving as a think tank/sounding board for evidence-based decision making by governmental health officials regarding isolation, quarantining, stay-at-home orders, and other measures to potentially control and mitigate the epidemic.
2. Analyzing and providing early profiles of positive cases by being on the receiving end of reportable disease data. Faculty can use reportable disease data and other data pertaining to disease risks and develop locally applicable and meaningful disease modeling.
3. Creating, disseminating, analyzing, and reporting on surveys that provide critical real-time information for the health department (e.g., Are stay-at-home orders understood? Are they being followed? How are vulnerable populations such as those in low-income/governmental housing receiving communications about COVID-19? And how are residents acting on this information?).

Surge Capacity, and the Capability of Managing It: Planning for the Next Pandemic

If the aforementioned activities describe what we can do now, what more do we need to put in place—beginning now—to prepare for the next pandemic? Those of us in academia want to believe we have tremendous surge capacity to offer up to our partners in public health practice. Between our faculty and students, we have thousands we can make available to the public health workforce. But such an offering, without a planned and exercised approach to managing this surge capacity, cannot succeed: the county or state health officer cannot be sticking the fingers of one hand in the dike while simply directing traffic with the other hand. This is where I circle back to the AHD. First, we need a mechanism in place that provides a bona fide health department appointment for certain key academicians—for example, Associate Deans of Public Health Practice and their corollaries in accredited Programs in Public Health—with clearances for access to information and issues pertaining to confidentiality already worked out in advance. In a public health emergency, that person becomes a deputy to the local/state health official and the primary liaison between academia and practice. Having a written formal partnership in place beforehand, and with senior leadership in both the practice setting and the academy meeting regularly, can go a long way in allowing the governmental health official to manage the surge capacity that academia can provide. Such agreements are akin to Mutual Aid agreements between first responders of all types across different communities.

Second, we need to be teaching public health students the methods that are used in such crises—a “Methods in Public Health Practice” course that should be a part of the core, required curriculum. Whether in peacetime or during times of military conflict, soldiers are always practicing marksmanship, a core element of their training. We should do likewise. If students learn the processes involved in real disease outbreak investigations, disease reporting, data analysis of syndromic surveillance, and related methods in applied epidemiology, crisis communications, and emergency preparedness and response, when requested to join the battle, they will be ready. What better way to engage public health practitioners in the classroom than to have them as co-Instructors in such courses? Again, as with our examples of the Student Outbreak Rapid Response Training and Team Epi-Aid, many academic programs already have a foundation for expanding such a new core course on Methods in Public Health Practice. Third, for the long haul, we must use this moment to advocate for the return of federal funding for emergency preparedness and response. While such funding was highly impactful following 9/11, the later loss of funding for the Preparedness and Emergency Response Research Centers and the Preparedness and Emergency Response Learning Centers, as described in a special issue focus of the American Journal of Public Health,4 has hamstrung us in our preparedness and response capabilities. Although there has been recent attention to the Public Health Emergency Preparedness Cooperative Agreement and more emphasis on environmental health in the Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019,4 we are a long way from preparing the emergency preparedness and response public health workforce of the future.

In conclusion, there are many activities that students and faculty can be doing now—are doing now in many locations—that allow us the opportunities to make a difference in this pandemic. There are more activities that we can plan for the future. Dr Novick
has been teaching me to write for 25 years. “We can choose NOT to fail.” Be affirmative: We will prevail.

References