These medical student-led projects make an impact during pandemic

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The COVID-19 pandemic caused unprecedented strain on health systems, and an unwelcomed disruption to medical training. Still, even as they were sidelined from patient interaction, medical students remained key members of the care team.

In some instances, their contributions fell within the domains of health systems science—the third pillar of medical education, and a foundational platform and framework for the study and understanding of how care is delivered, how health professionals work together to deliver that care, and how the health system can improve patient care and health care delivery.

A recent publication offers concrete examples of those contributions, which were submitted as part of the 2020 AMA Health Systems Science Student, Resident and Fellow Impact Challenge.

Submissions covered a variety of topics and show medical students, residents, and fellows moving rapidly in the face of a global crisis and devising innovative ways to:

- Trace the contacts of COVID-19 patients.
- Provide child care to the offspring of physicians and other health professionals.
- Serve as the conduit for information between patients’ families and physicians.
- Manage the constantly changing information about COVID-19.

The caliber of submissions was high. Three selections—pertaining to prenatal support, critical communications and testing—are highlighted below.

Learn about five ways the pandemic may transform medical education.

Prenatal guidance during the pandemic
The problem: Traditional in-person prenatal visits were limited by the University of Michigan’s ob-gyn department.

The solution: Led by an interdisciplinary maternity care team, medical students at the University of Michigan helped launch a new prenatal care model leveraging reduced visit schedules and telemedicine. Within a three-day span, 50 students were recruited to help contact 1,500 low-risk patients about prenatal care. A detailed call script detailed key areas such as prenatal care counseling and home-monitoring education. Personal impact: “This project allowed me to see how change happens at all levels to achieve the same outcome—better care of the whole patient,” Michigan medical student Susan Carlson wrote in the abstract. “This project helped me understand the complexity of health care delivery, the critical role each team member has to play, and the necessity of teams in accomplishing patient-centered care.”

Find out how medical schools innovated to engage medical students during the pandemic.

Communicating critical care information to families

The problem: With NYU Langone’s hospital visitors restricted and medical students removed from clinical rotations, front-line doctors and health professionals faced a patient surge leaving little time for communication with families.

The solution: NYU Family Connect was created to keep families in the loop on the care of loved ones. Medical student volunteers, paired with mentoring physicians, were trained to remotely gather clinical information from patients’ charts, attend virtual rounds, deliver key clinical daily updates to family members and document these conversations. NYU Family Connect included more than 115 students and 151 physicians. NYU medical students were able to contact the families of 94% of COVID-19 patients. During the first wave of New York cases, they contacted about 1,800 families and made on average eight calls per family.

Personal impact: “We were involved in this project during one of the most integral parts of medical school—clerkship year, a time when we are first introduced to the reality of health systems and choose which specialty we would like to pursue,” project lead Hannah Karpel, a medical student at New York University Grossman School of Medicine, wrote in the abstract.

“We initially thought the pandemic interrupted this year, but NYU Family Connect proved to be one of the most transformative experiences of medical school,” Karpel said. “We were delivering good news and bad news to family members day in and day out, placing ourselves in some of the most intimate and tender moments of their lives.”
Expanding testing to drive-through sites

The problem: At the outset of the pandemic, most SARS-CoV-2 testing was taking place in hospital settings and capacity was limited. Further, a need existed to provide more testing access for first responders and underserved populations in the Memphis area.

The solution: Undergraduate medical students at the University of Tennessee Health Science Center (UTHSC) worked with senior administration at the UT medical school to design, deploy and staff a large drive-through community COVID-19 test site. Medical students drafted all training, testing and safety protocols in partnership with faculty mentors, resident physicians and city leaders. Over 170 medical, nursing and dental student volunteers staffed and managed testing over a six-week period.

Personal impact: “This work has reaffirmed our admiration for the heart of service of the physician volunteers, the first responders, and our fellow classmates, as they did not hesitate to respond to the community’s need in this unprecedented time,” project leads Lydia Makepeace, Chloe Hundman, Austin O’Connor, Hannah Allen, Andrew McBride and Sophia Lavie—all UTHSC medical students—wrote in the abstract.

The AMA has curated a selection of resources to assist residents, medical students and faculty during the COVID-19 pandemic to help manage the shifting timelines, cancellations and adjustments to testing, rotations and other events at this time.