

**KANAK VERMA, MPH '17, MED '18**

## Shouldering Responsibility for the Most Vulnerable Patients

**T**HE NEWBORNS KANAK VERMA CUDDLED WERE SICK. Verma was a first-year medical student at the Geisel School of Medicine, and the infants were suffering from neonatal abstinence syndrome (NAS). Going through opioid withdrawal, the babies wailed and vomited, seized up in agitation and expelled watery diarrhea. Though the patients in her arms were tiny, it was through them that Verma first felt the full weight of the opioid epidemic.

That was five years ago. Today, Verma is poised to begin her residency in pediatrics at Children's Hospital of Philadelphia and holds a master of public health (MPH) from The Dartmouth Institute for Health Policy and Clinical Practice. She also has coauthored an important research review, recently published in *JAMA Pediatrics*, about the advantages of keeping infants with NAS out of neonatal intensive care units and in the same room with their mothers. Newborns who "roomed-in" with their moms often required less medication than those who spent time in intensive care and were released from the hospital more quickly. Treatment for the approximately 6 out of every 1,000 babies born in the United



Kanak Verma, MPH '17, MED '18 and Alison Volpe Holmes, MD, MPH, collaborated on research to improve the care of babies born addicted to opioids. Here, they examine an infant at Dartmouth-Hitchcock.

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States with opioid dependence may improve significantly thanks to this study, conducted by Verma and associate professor Alison Volpe Holmes, MD, MPH.

A public health major in college, Verma was familiar with the emphasis Geisel places on health-systems work before she applied to medical school. This, as well as the opportunity to pursue a dual MD-MPH degree, put Dartmouth at the top of her list. Then, at her admissions interview, she could feel a sense of community from the moment she stepped on campus.

“People look out for each other and support each other,” says Verma. “That’s something that’s been very special. It’s what drew me here.”

## THE CREATION OF A COMPLETE PHYSICIAN

Verma was also drawn to Geisel’s curriculum and the priority that’s given to developing complete physicians. Basic science coursework in years one and two is complemented with healthcare delivery science classes, so students learn from the start that mastery of clinical knowledge is just one part of being a doctor. Knowing how hospitals work, how to improve systems of care, and how to approach disparate patient populations is vital to realizing the best possible outcomes for patients.

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For Verma, the complete physician is dedicated to keeping the patient at the center of care—a principle she put into practice during her third-year clinical rotations across the United States. Working in such distinct locations as a high-volume hospital in Hartford, Connecticut, a Navajo reservation in Fort Defiance, Arizona, and at California

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# Innovation in Medical Education

**While the doctor-patient relationship remains at the heart of medicine, physicians today must work effectively within interprofessional teams, manage the health of diverse populations, and continuously improve the systems in which they work. Geisel meets this challenge with a medical education program that sets the standard for preparing physicians to improve the health of individuals and communities and the ways we deliver care, always recognizing the needs and values of individual patients.**

Just as medical practice is evolving, so too, must medical education. The Department of Medical Education serves as the foundation of Geisel’s dynamic MD curriculum and as a catalyst for pedagogical innovation. As a partner in the Kern Institute for the Transformation of Medical Education, Geisel is among a select group of institutions at the forefront of advancing medical education nationally.

Geisel has led the way in promoting problem-based, interactive learning; online learning modules now used in nearly every medical school in the country; and the integration of healthcare delivery science into the MD curriculum. In addition, our students learn by doing in contexts with real outcomes—in research labs, in clinical settings, and in the community. Year after year, residency directors nationwide remark on our graduates’ clinical preparedness, as well as their understanding of systems of care and readiness to engage in quality improvement work.

## Educate Complete Physicians

We will train compassionate physicians who possess outstanding clinical skills, a deep understanding of the scientific basis of health and disease, and proficiency in delivering care within complex social and economic environments. Geisel-educated physicians will be distinguished by their ability to improve the systems in which they work and by their commitment to the needs of individuals and communities they serve.

**New philanthropic support totaling \$45 million** will promote continuous innovation in medical education, enhance the informal curriculum, and increase scholarships for students.

Pacific Medical Center in San Francisco, Verma was exposed to diverse patient populations, disease pathologies, and medical systems. These interactions, Verma explains, reinforced the importance of never making healthcare decisions based solely on how they'd been made in the past and always considering the needs and preferences of the unique patient in front of her.

By the end of her third year at Geisel, Verma knew she wanted to be a pediatrician, and the following year studying for her MPH at The Dartmouth Institute strengthened that decision. In addition to the research on NAS, Verma also collaborated with Assistant Professor Paul Barr, PhD, MSc, on a project to record patients' visits with their doctors so they could absorb the details of the visit at home, share information with family, and ultimately, through better understanding of their treatment, take a more active role in their healthcare. Now, she's passionate about research and quality improvement. "Our responsibilities don't stop at the front gate of the hospital," says Verma. "A physician's roles as a researcher, an educator, and an advocate are invaluable to achieving comprehensive care."

## YOU ARE ENOUGH

"I think so much of what I've been able to get involved in and the work that I've done as a medical student is a product of great mentorship," Verma says. Eager to respond in kind to the greater Dartmouth community, Verma has served as a resident advisor to undergraduates, offering academic, extracurricular, and social support. And now she can pass along to undergrads and younger medical students some of the lessons she's picked up along the way.

"Something one of my mentors, Dr. Joe O'Donnell, said to us from day one is that you are enough—what you have in your heart is enough—and that's gotten me through long nights at the library or in the hospital. You may not always know the right answer, but just being here is enough."

This was especially true for Verma in her role as a cuddler. Consoling those babies with nothing more than her gentle attention, she learned that one of her most important duties as a physician is to simply be present with her patients.

LAUREN SEIDMAN



From left to right: Paul Barr, PhD, MSc, Kanak Verma, MPH '17, MED '18, and Michelle Dannenberg, MPH '15, collaborate on Open Recordings, a project to help patients make the most of their visits to the doctor.