

2020 – Aditi Sharma, MD

Dr. Sharma is a PGY3, dermatology resident, at the University of California, Irvine. When the shortage of personal protective equipment began to affect the hospitals around the country due to the COVID-19 pandemic, Aditi became motivated to find a solution that would help the healthcare community. She studied the shortage of equipment and realized that focusing on a solution to create reusable and re-sterilizable masks and face shields would be the most beneficial to healthcare workers. Initially, Aditi worked with engineers from the local community to develop prototype Powered Air Purifying Respirators (PAPRs) and face shields using 3D printing technology. They focused their efforts on creating a reusable solution for the PAPR consumables such as the face shield and the air filters. Aditi worked with medical students and the school of engineering at UC Irvine to 3D print and assemble over 20,000 face shields that are currently being used by healthcare workers at the hospital.

What impact has Dr. Sharma's efforts had on the community?

With the face shield solution implemented, she turned her efforts to finding a solution for a reusable filter material. Aditi researched several different options for filter material before landing on the Halyard surgical sterilization wrap as a possible alternative filter material. Interestingly, these surgical sterilization wraps are being thrown away after a single sterilization of surgical instruments. Aditi sent the recycled surgical sterilization wrap, along with other candidates to be tested for filtration efficiency in an independent laboratory at Massachusetts Institute of Technology. She discovered that the surgical sterilization wraps significantly outperform the cloth masks that have been handed out to health care workers and are almost as good as an N95 mask. This inspired her to create repurposed masks from the recycled surgical sterilization wrap as an alternative for hospitals and the local community. Aditi worked to develop a University of California wide protocol to collect the otherwise discarded surgical sterilization materials so that they may be used to build masks while simultaneously reducing medical waste. Aditi has recruited several talented community members from different fields to help launch her masking initiative. She reached out to local sewing factories and partnered with OC Cutworks to produce 10,000 masks made from the surgical sterilization wrap to provide a mask for every worker at the hospital from custodial services, to cafeteria workers to healthcare workers. Furthermore, she worked with medical students and the school of engineering to efficiently manufacture stainless steel nose pieces for the masks. Even more remarkable, is that her innovative spirit has inspired many members from the community to donate their time and resources to provide help with the initiative to better protect health care workers. In order to scale her project to the community and beyond, Aditi is now partnering with Sewing for Lives, a nonprofit sewing organization located all over the United States. This has allowed other hospitals to send their recycled surgical sterilization wrap to nearby sewers to create more masks. UCLA, UCSF and Cleveland Clinic have shown interest in partnering with her on this project to adopt a similar model. This project is truly innovative on multiple levels. It has made a positive environmental and public health impact in a very short time, while also engaging community partners. Aditi has truly demonstrated her dedication to the public health of the community during the COVID-19 pandemic. As a result of her tremendous community effort, she has been featured in the Los Angeles Times and the Orange County Register.

2019 – Emma Goodstein, MD

Dr. Emma Goodstein is a second-year family medicine resident at University of Arizona/Banner University. She takes special interest in patients that are underserved and disadvantaged and conducted research on African American Men with HIV and how discrimination affected their care. She also volunteered at free clinics for refugees and migrant workers in Georgia and served as a Spanish interpreter at several clinics.

Dr. Goodstein is most passionate about asylum seekers that present themselves to the US-Mexico Border. She has worked hard during residency with the Arizona Asylum Network Organization composed of lawyers and providers to plan a multidisciplinary workshop to train physicians to do medical forensic examinations for asylum seekers. Dr. Goodstein has been successful in training more than 50 physicians to conduct forensic exams with 90% off asylum cases being approved while spearheading efforts that now allow CME credit to the providers who complete the training.

In addition to performing evaluations she volunteers with Casas Alitas, a monastery in Tucson. The monastery serves as a refuge for asylum seekers in Tucson who are transported by Immigration and Customs Enforcement. Because of its geographical location so close to the border there are often hundreds of patients seen per day. She performs basic medical exams on the patients and triages which ones need to get a higher level of care. She has been inspirational to others for her work with the asylum seekers and has been instrumental in getting other members of the department and other residents involved. She has even gone a step further to present her work with the asylum network at national and international conferences to raise awareness about this extremely vulnerable population.

Patients and fellow staff admirably commend Dr. Goodstein as being one of the best residents they have. She is passionate beyond measure about underserved populations domestically and abroad and has shown her dedication to these populations through her service. Her service and work with the asylum seekers in the community is inspirational.

2018 – Aravind Thavamani, MD

Dr. Aravind Thavamani is a third year Pediatric Resident at MetroHealth Medical Center in Cleveland.

Women, Infant and Children (WIC) is a federal funded program for women, infants, and children who are at health risk due to inadequate nutrition. Dr. Thavamani observed the tedious process of WIC appointments especially the plight of new mothers, having to take multiple buses along with their newborn baby and toddlers to get to the hospital just to pick up the WIC prescription for special formula. Further, parents were required to bring their infants and toddlers to WIC offices to document anthropometric measurements and blood test for anemia and lead which were already performed by their medical provider, resulting in duplication and less effective management of time and resources as well as making WIC appointment more stressful to parents who are already physically, mentally and financially exhausted.

Dr. Thavamani identified areas of improvement in WIC appointments to make it more streamlined and less stressful for the participants. Under the guidance of his mentor Dr. Abdulla Ghori, Division Chief of Ambulatory Pediatrics and Vice - Chair of Pediatrics, the concept of "Digitalizing WIC", much the same way as sending an electronic prescription to any pharmacy was designed. With their determination and perseverance, they coordinated the efforts to streamline the process by collaborating with the WIC employees, information system, and legal body of the hospital.

The project started with training all the WIC employees on how to access patients' electronic health record (EHR). Remote access to EHR was then provided to all 83 employees at 23 WIC sites through which they were able to assess participants' health record, including anthropometric measurements, anemia and lead screening values and immunization records. The WIC employees were also trained to electronically communicate with the provider thus eliminating the hard copy reports in triplicate they were conventionally mailing. This successful model has streamlined access to WIC care, and management.

2017 – Emily Frank, MD

Emily Frank is a third-year pediatrics resident in the Pediatric Leadership for the Underserved Program at the University of California at San Francisco, and a former middle school teacher with a strong interest in health education and youth empowerment.

In 2014, the city of Oakland passed a measure ("Oakland College and Career Readiness for All") to increase graduation rates with a focus on college and career readiness for all Oakland students - particularly African American and Latino students. While completing her intern year of Pediatrics residency, Dr. Frank embarked on a mission to create a program that would address this need and developed a curriculum with the Oakland Unified School District (OUSD) to teach at-risk youth about health justice.

Dr. Frank approached OUSD's Director of Summer and Afterschool programs and offered to build a four-week summer curriculum for students entering the Public Health Academy at Oakland High School. In collaboration with instructors and youth in OUSD, Dr. Frank crafted a curriculum to teach health justice using a youth participatory-action research approach. Through this model, students explore public health issues in their community such as mental health, healthcare access, food justice, diabetes, trauma, toxic stress, and police violence as a public health issue. In small groups students identify an issue of interest to them, research the issue within their community, analyze their data, and build proposals for public health interventions based on their findings. Dr. Frank also implemented a health careers exploration component to the curriculum.

She recruited healthcare professionals to speak to youth about their career path, and as the curriculum development completed, OUSD chose to pilot the program at three schools. Despite her rigorous residency schedule and working night shifts Dr. Frank designed and led trainings for eight facilitators. During the implementation of the curriculum she maintained frequent communication with the facilitators and visited their classrooms to co-facilitate and support students. At the end of the four-week program, students joined together to present their findings at a conference designed and executed primarily by Dr. Frank during which they shared findings and interventions with peers, families, and public health professionals. Interventions included providing peers with information about their rights when being confronted by police, educating health providers about the epidemic of cough syrup abuse, and designing a web page with resources for STI testing and assistance. After the summer pilot, Dr. Frank was eager to continue improving the program, so she sought feedback from students and facilitators and used this to revise and further develop the curriculum.

This year the program was implemented again at three schools and will expand to several after school programs in the district later this year. Dr. Frank shared her work and curriculum at the National School Based Health Alliance conference and is planning to present at the National Conference Exhibition for the American Academy of Pediatrics and the American School Health Association Conference later this fall. She plans to hold a free regional training for all educators and health workers who are interested, and now has her curriculum available online.