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Protective Measures



The School of Nursing's Elizabeth Aquino and Karlis Butler gather medical supply donations.

"The hospitals we selected are really underresourced. We wanted to make sure they were prioritized to get additional PPE."

—Elizabeth Aquino (CSH MS '06)

CSH goes above and beyond to support communities in crisis

When the COVID-19 pandemic hit the United States and engulfed frontline health care providers, CSH faculty, staff and students stepped in to help by donating and fabricating personal protective equipment (PPE).

In late March, School of Nursing faculty and staff collected unused simulation lab supplies, including 1,800 sterile gloves, 1,150 examination gloves, 350 biohazard bags, 200 gowns, 150 face masks and 40 face shields. Biology and Health Sciences faculty donated 12,000 pairs of gloves and 50 disposable lab coats. CSH also rounded up face masks from the scene and prop shop at The Theatre School. The PPE went to Sinai Health System and Norwegian American Hospital, providers that support underserved communities on Chicago's West and Southwest sides. Riverside Medical Center in Kankakee, Ill., also received supplies.

Elizabeth Aquino (CSH MS '06), associate professor of nursing and president of the Illinois American Nurses Association, was part of a team that personally delivered supplies to the hospitals.

"The hospitals we selected are really underresourced. We wanted to make sure they were prioritized to get additional PPE," says Aquino. "Our students also go there for clinical placement and use their PPE when they do, so we wanted to reciprocate."

Aquino also helped connect colleague Eric Landahl, associate professor of physics, and Jay Margalus, director of DePaul's

Idea Realization Lab (IRL) maker spaces, with clinical partners after they and an IRL-led alliance of like-minded makers started designing, testing and fabricating face shields and plastic covers for N95 face masks at home using 3D printers and laser cutters.

The [Illinois PPE Network](#) that grew from their grassroots efforts includes DePaul faculty and students, clinicians, hobbyists and companies that have donated materials and production. An [Inspire DePaul campaign](#) aided the initiative, which has produced thousands of PPE items for health care providers as well as food pantries, restaurants, nursing homes and schools in the Chicago area. Landahl says the network served a critical need early in the crisis before large manufacturers got up to speed around late April to address widespread PPE shortages. Later, cloth face mask production and public education guides became focuses.

"We're able to move very rapidly," says Landahl. "It took us about 72 hours to deliver our first face shields after getting those 3D printers."

Landahl's wife, Sarah Rice, a former Northwestern University biochemistry professor who recently finished her doctorate in physical therapy, was among many clinicians lending an expert hand and appraisal on design iterations. A couple of emergency department physicians related to DePaul faculty and staff also contacted Landahl and put him in touch with other emergency physicians across Chicago. Several graduating CSH seniors worked on the project, too.

"What's cool is those students passed their machines and knowledge off to incoming juniors and seniors, who are continuing the work," says Landahl.