

For Immediate Release

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3D Printing community creates face shields as PPE

Innovative effort helps Banner Health protect frontline health care workers

PHOENIX (April 2, 2020) – As Banner Health ensures it has the necessary supplies to keep its patients and team members safe, [Banner Innovation Group](#) is collaborating with community partners to create an array of supplies that meet CDC guidelines and are able to be sourced locally and quickly. Most recently, that innovative partnership brought in the help of the 3D printing community to create face shields.

The personal protective equipment, or PPE, mounts to the team member's head using a headband, which is secured using an elastic strap. Mounted to the front of the headband is a clear plastic face shield, which protects the health care worker's mouth, nose and eyes from any droplets or aerosols that could be present while providing patient care. In addition to providing a layer of protection for the health care provider, the shields also prevent procedural and N95 masks from becoming soiled or dampened. That can extend the useful life of the much-needed masks, which are in short supply globally.

"We are in absolute unprecedented times," said Christy Anderson, executive director of innovation at Banner Health. "We are all taking proactive preventative measures as much as we possibly can—whether it is ordering more supply from the existing manufacturers, or trying to produce extra quantities and alternative sources of supply."

Phoenix-based [Walter LLC](#) is manufacturing the clear face shield material using a laser cutter, as well as collecting headbands for an array of Phoenix-area 3D printing companies, and assembling the face shields in an infection-controlled environment. The coalition anticipates producing about 1,000 face shields a week. While cutting the face shield only takes about 30 seconds apiece, printing each headband can take several hours.

"We've had a maker community that has worked in here for the last decade," said Kirk Strawn, MD, founder of Walter LLC. "It's really a perfect facility for us to be able to contribute to the face mask production."

Dr. Strawn himself comes from a medical background; his wife remains a practicing pediatrician. His organization is coordinating production efforts with 3D printers that typically make products like cookie cutters and dental appliances.

"A large number of 3D printers out in the community have started to coordinate their efforts, centralize all of the headband supplies, and create completed units so we could deliver them to the health care workers," Dr. Strawn said.

The face shields are being delivered to Banner Health's Supply Chain team, which is distributing the face shields across Banner's six-state service area based on need. The goal is to ensure every frontline employee has the PPE they need to provide the best patient care possible throughout the global response to the coronavirus and treatment for COVID-19.

MULTIMEDIA: [B-Roll, Interviews, Photos Available Here](#)

Headquartered in Arizona, Banner Health is one of the largest nonprofit health care systems in the country. The system owns and operates 28 acute-care hospitals, Banner Health Network, Banner – University Medicine, academic and employed physician groups, long-term care centers, outpatient surgery centers and an array of other services; including Banner Urgent Care, family clinics, home care and hospice services, pharmacies and a nursing registry. Banner Health is in six states: Arizona, California, Colorado, Nebraska, Nevada and Wyoming. For more information, visit www.BannerHealth.com.

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