

# PROJECT ADAPT

Shifting from designing clothing for older adults, to creating emergency Personal Protective Equipment (PPE) for their hard working caregivers and the committed ECA staff.

## Team:

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## Adaptive Clothing



### Methods

17 weeks  
50+ hours of user interviews  
5 prototypes  
2 focus groups + testing sessions

### Next Steps

ECA will use our insights to develop an in person pop-up shop experience.

### Key Insights

Older adults enjoy interacting with a physical product (catalog vs video).

Older adults do not know how their sizes change.



## Personal Protective Equipment

On Friday, March 20th, our project partner came to our team with a **call to action**. In the case that the Elder Care Alliance runs out of their projected PPE and global demand prevents them from acquiring more, how might they construct enough supply, in house, to care for their 600 residents across 6 locations? We are developing a design document for the construction of the following products.



### Mask from HEPA Vacuum Filter:

N95 masks are essential for ECA caregivers because of their tight fit, and ability to filter out small particles. The world is experiencing a shortage of the essential material, meltblown, a non-woven fabric. We have proposed a high efficiency particulate air (HEPA) filter, commonly used in vacuums. When covered with another layer of cotton cloth, they are a safe and effective alternative.



### 3D Printed Shield:

Face Shields are required, in addition to masks, for their ability to protect workers against large droplets from sneezes and coughs. They are also helpful when it comes to allowing older adults to lip read when communicating with ECA staff. Our protocol includes collaborating with Bay Area facilities (UCB, CCA, UCSF) capable of 3D printing, in addition to a simple shield design that will be made inside ECA facilities.



### Gown & Shoe Covers:

ECA staff interacting with residents are encouraged to wear gowns and shoe covers that they are able to change in between shifts. This ensures they do not bring virus outside of the facilities. We are proposing that ECA buy rolls of cotton and polyester fabric, use our design pattern to cut and sew x gowns and y booties over z days. We provide supplemental videos that will explain how to wear and sanitize the items.