# Designing and testing remote services to support formerly homeless persons in permanent housing

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- Permanent supportive housing (PSH) is long-term, community-based housing combined with supportive services
- The COVID-19 pandemic forced PSH programs to use remote services
- Use of tele-services is likely to increase

- What are the socio-technological factors that affect the successful use of tele-services in PSH?
- What are some services that can be provided via technology?

## Intellectual Merit

Investigate the social and engineering dimensions of adopting technologies to deliver specific supportive services in PSH:

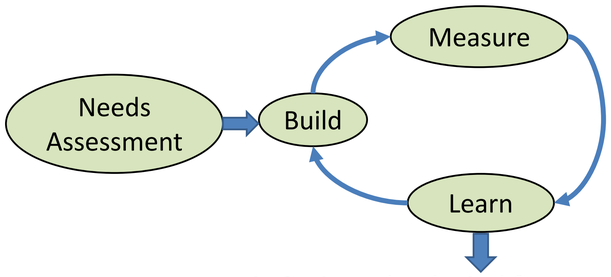
(1) minimally intrusive environment and user-borne sensors,

(2) privacy-preserving data sharing algorithms and data storage, and

(3) mobile user interfaces for accessing the Internet and remote services.

Successful outcomes for the project would be:

- Socio-technological factors that affect the successful use of tele-services in PSH
- A model for predicting when tele-services can be effective in supportive housing
- Privacy-preserving data analysis and storage methods adapted for PSH applications




1. Socio-technological factors
2. Predictive model of remote service success

- Conducted a needs assessment in April 2022 with PSH residents and staff
- In-person focus groups with residents of 5 PSH complexes in Orange County. The PSH are run by our community partners.
- Online interviews with staff members
- Questions covered: services provided, effect of pandemic on delivery of services, current use of technology for services, types of devices (e.g., smartphones) used by residents, opinions of several illustrative technologies


## Immediate Impact

- Results will be circulated to the Orange County Commission to End Homelessness and local supportive service providers
- Service learning in computer science and engineering programs where the underrepresentation of minorities is largest

## Broader impact

- Research outcomes can inform the design of future supportive housing units
- Effective use of tele-services can reduce the cost of providing supportive services in PSH

## Next steps

- Build and evaluate prototypes of selected technology-mediated services
- Interviews with other key informants - the service providers.
- Adapt privacy preserving data analysis and data storage methods to PSH applications



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