

# Telescreening and CNAs to Meet Growing Demands on Emergency Departments

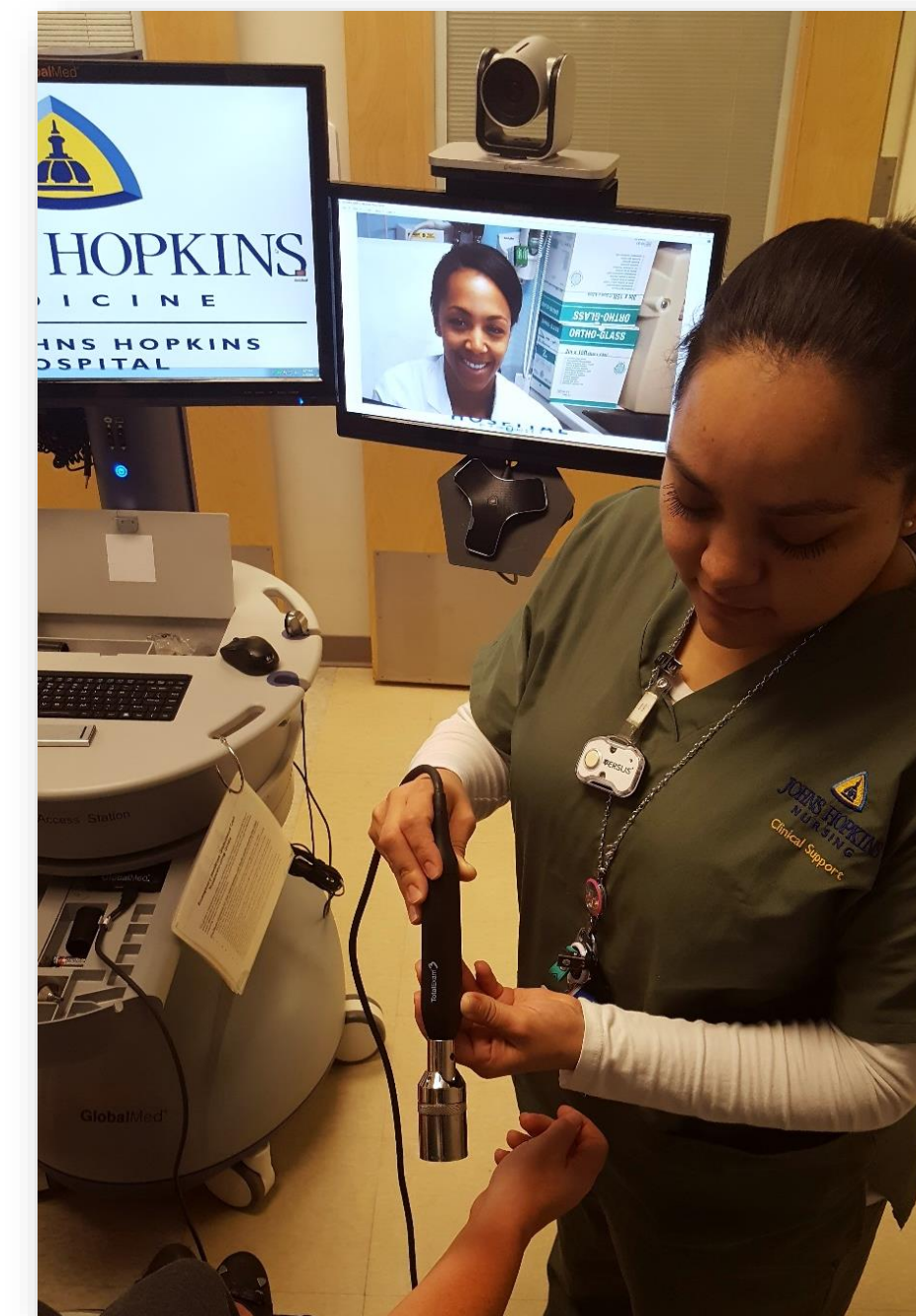


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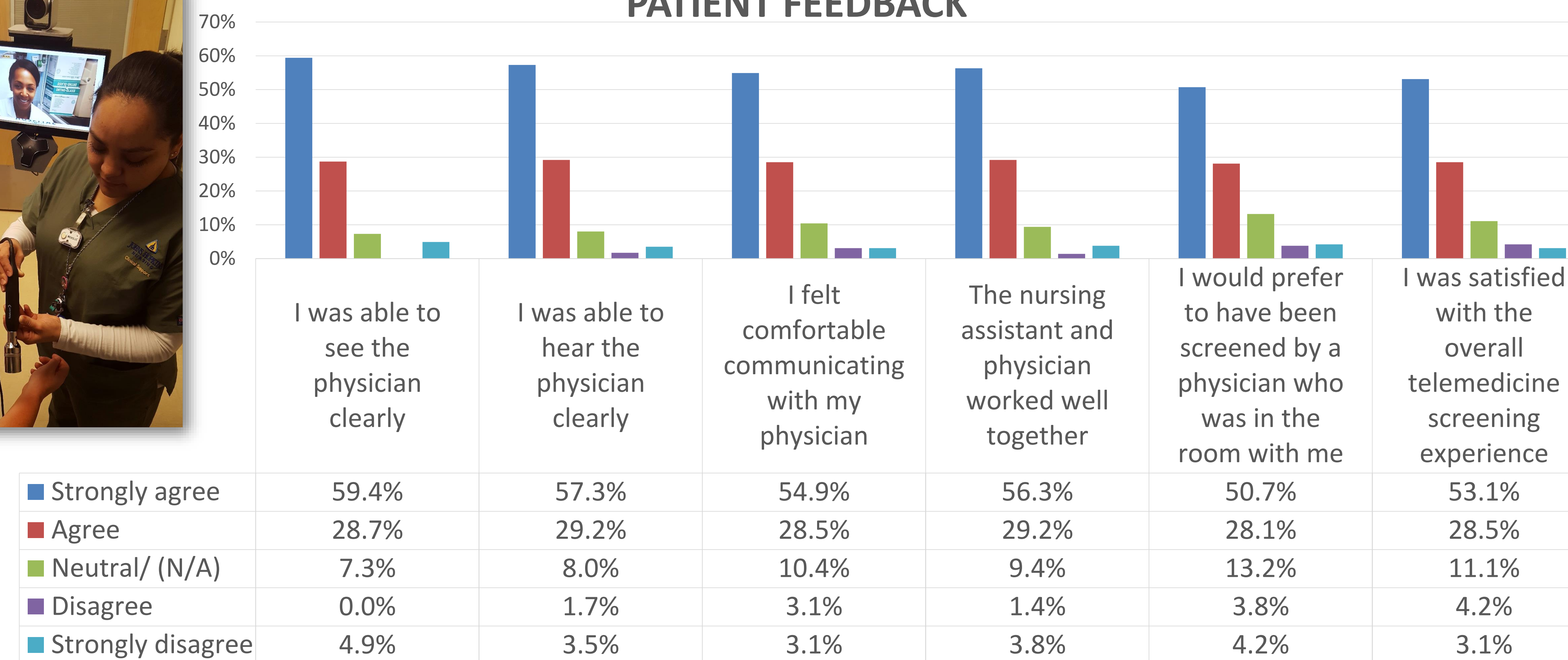
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## Purpose

Emergency departments across the United States are providing care to larger volumes of patients and stressing their current capacity to provide timely and safe services. New approaches are essential to meet this growing demand. One way to expedite the provider medical screening is to use telemedicine technology. Telemedicine allows patients to be evaluated by off-site providers during times of high patient volumes or off-shifts. Telemedicine technology requires both a provider to complete the screening and a clinician on-site to provide the necessary support. Certified Nursing Assistants (CNAs) are an efficient and effective member of the healthcare team who can provide in-person support while maintaining quality of care. The objective of our project was to assess the patients' and providers' experience and acceptability of a CNA supported telemedicine program in an urban ED.



## PATIENT FEEDBACK



## Methods

Certified nursing assistants underwent a 4-hour training on telemedicine technology. Two nursing educators were responsible for signing-off competency on the medical component of tasks (i.e., stethoscope placement) and a member of the technology team ensured competency on the physical equipment.

Telescreening took place Tuesdays through Fridays 1:00 AM to 3:00 AM, Saturdays and Sundays 7:00 AM to 10:00 AM. An additional Friday shift was added in July from 9:00 AM to 5:00 PM. Data collected included: number of patients screened and care quality metrics compared to in-person screening (orders for pain medications, troponins, EKGs and chest x-rays). Patients, providers and CNAs also completed feedback questionnaires regarding satisfaction with the technology.

## Design

We implemented a quality improvement project to provide medical telescreening from an off-site provider with on-site CNA support.

## Setting

This project took place at a Level 1, urban, academic trauma center with approximately 70,000 patient visits per year and 20 full-time CNAs.

## Participants

All CNAs were trained on the telemedicine Clinical Access Station. English-speaking patients, ESI level 3-5 who consented to a telemedicine screening were eligible to participate. Inebriated patients and those with behavioral risks were excluded. Qualitative surveys were distributed to participating patients, providers and CNAs.

## Results

Since April 2016, 19 CNAs completed telemedicine training and contributed to screening over 5,600 patients. Clinical quality metrics varied by type of order, with EKG orders seeing the closest frequency (6.1% difference) and troponin orders the most divergent frequencies (18.9% difference) between in-person and telescreening. Overall, patients, providers and CNAs were satisfied with telescreening (81.6%; 92.3%; 96.7%). Left without being seen rates decreased from 14.3% to 8.3% when telescreening was offered (2.1% with in-person screening) and door-to-provider times decreased from 145.8 minutes to 55 minutes. Patient and provider feedback is displayed in Figures 1 and 2.

## PROVIDER FEEDBACK

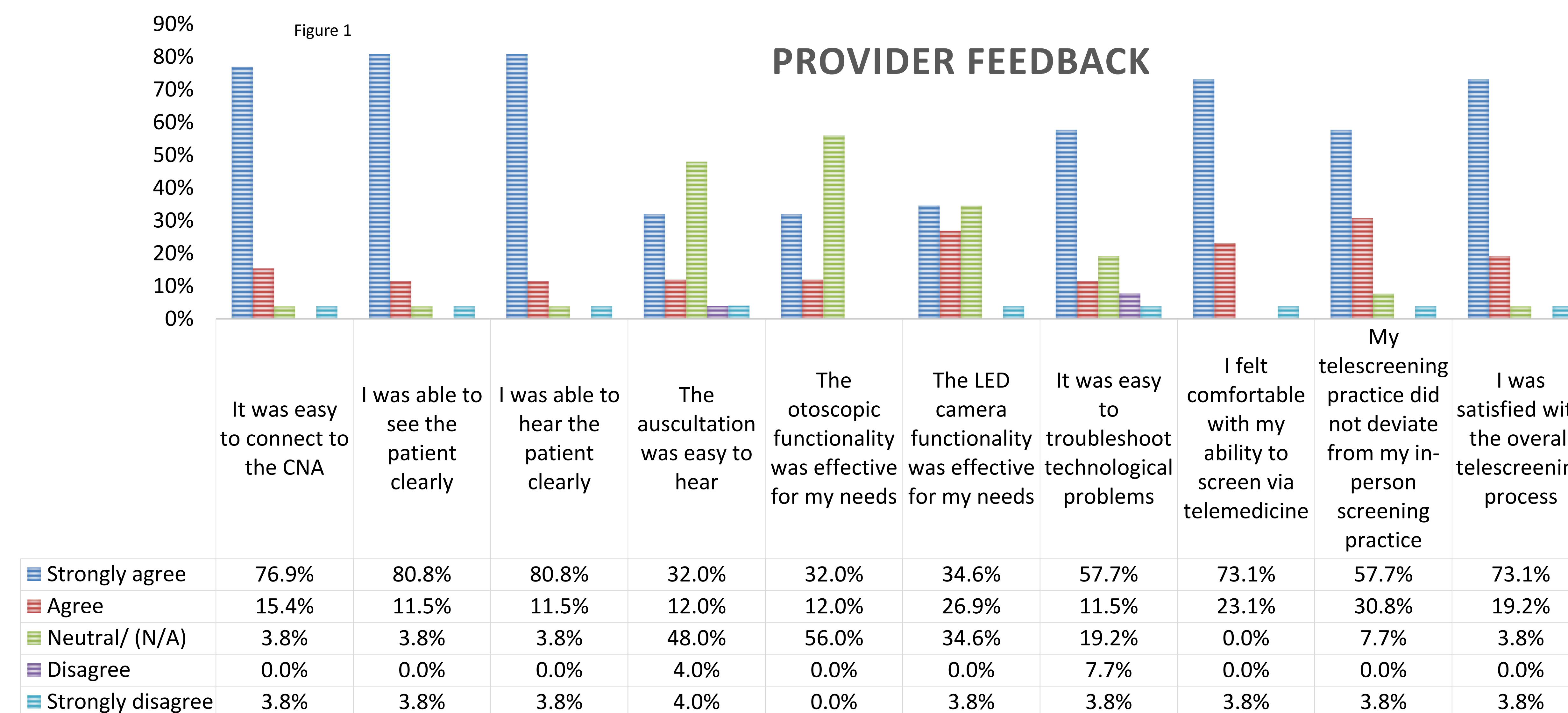


Figure 2

## Implications

The changing healthcare environment requires optimization of technology and innovative strategies to provide timely patient care. Certified nursing assistants are competent and confident in their ability to facilitate telescreening while maintaining quality and quantity of care.

Combining the skills of CNAs with telemedicine providers is a high-yield marriage of resources to meet the growing demand for emergency services.