

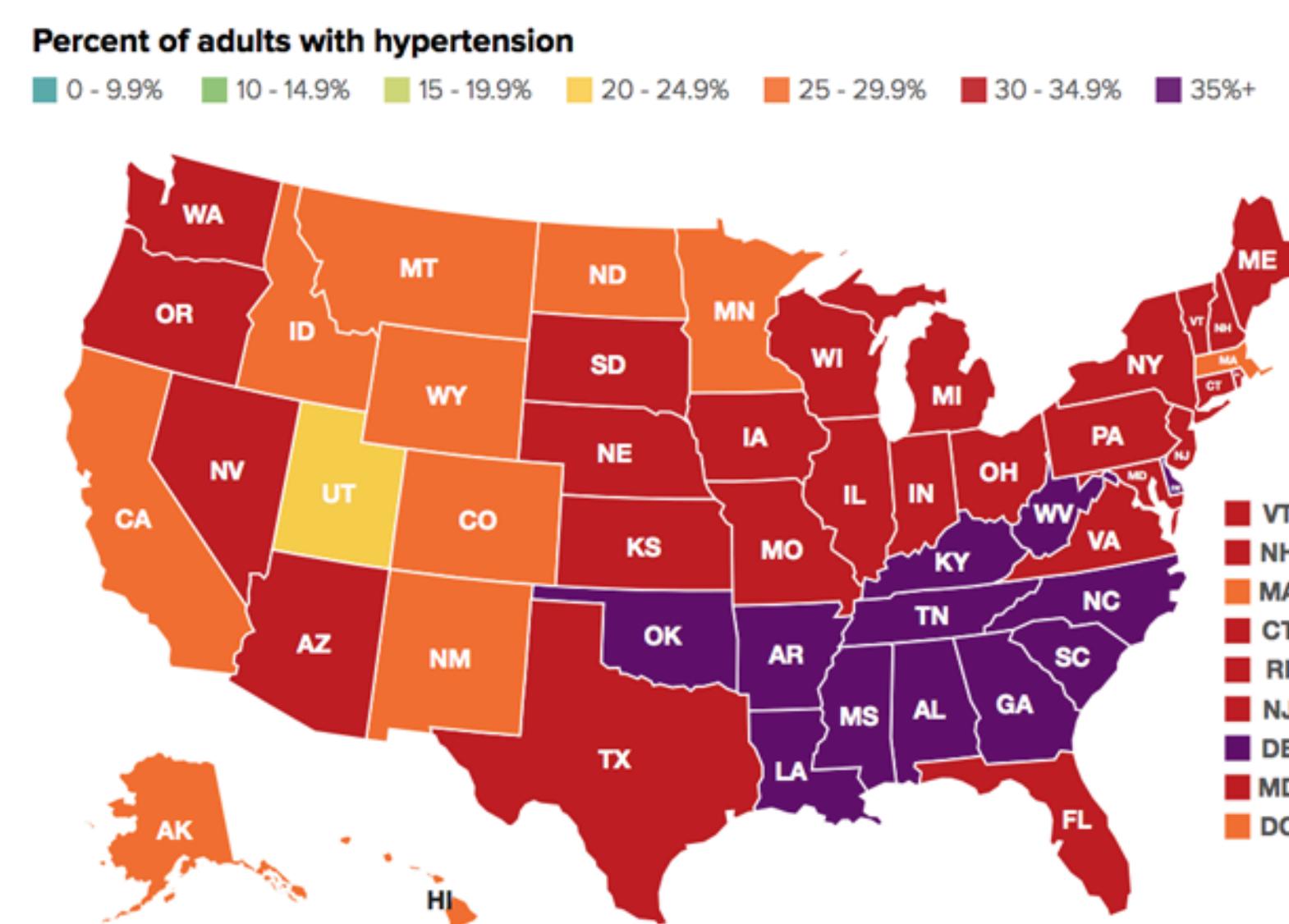
# Use of evidence-based telehealth to improve hypertension of the elderly in rural areas

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## Background



Uncontrolled hypertension is one of the fastest-growing problems among older adults ages 65 and older in the United States.

- Rural communities face barriers to access, increasing HTN risk
- Lower socioeconomic status
- Greater travel distance for appointments
- Lack of transportation access
- Low health literacy

## Purpose, AIMS, & Problem

### Purpose

This evidence-based practice project aims to increase access to healthcare using telehealth and provide: Education on prevention, management of hypertension, and decreased rate of hypertension in older adult patients in a rural setting

### Problem Statement

Low socioeconomic status, lack of adequate education about management of hypertension, and inadequate public transport lead to a rise in uncontrolled hypertension among elderly patients in rural areas.

With decreased access to healthcare, hypertension worsens. The lack of proper diagnosis, treatment, and support of hypertension can be detrimental to patient care.

With adequate education on hypertension management and increased resources, unnecessary emergency room visits and hospitalizations can be prevented.

Adherence to medications

Telehealth patient satisfaction

Perceived level of access to care.

Determine if these aims increase in persons  $\geq 65$  years old after a 12-week telehealth intervention compared to before the intervention.

## Methods/ Intervention

Design - Evidence based pre - test post - test

Setting - Outpatient Family Medical Center in Rural Alabama

Sample - Age 65 and older with hypertension

Sample size - 32

Participant Recruitment - Email Blast

Activities	Details	Dates	Persons involved
Baseline data collection	Pre-Surveys MAQ, telehealth patient satisfaction, and level of access questionnaire	September 2021	DNP student, RN, and Participants
Session 1	Education Blood pressure monitoring, low sodium cardiac diet, and importance of medication adherence	October 2021	DNP student, Participants, RN, and the Provider
Session 2	Education Blood pressure monitoring, low sodium cardiac diet, and importance of medication adherence	November 2021	DNP student, Participants, RN, and the Provider
Session 3	Education Blood pressure monitoring, low sodium cardiac diet, and importance of medication adherence Post- Surveys / Education MAQ, telehealth patient satisfaction, and level of access questionnaire	November 2021	DNP student, Participants, RN, and the Provider
Session 4 / Post - data collection		December 2021	DNP student, Participants, RN, and the Provider

## Results

Overall scores	Pre-implementation n = 32	Post-implementation n = 32	P-value
AIM 1 - Medication adherence score (mean $\pm$ SD) (Paired t-test)	$1.6 \pm 1.1$	$1.8 \pm 1.5$	0.41
AIM 2 - Patient satisfaction score Median (IQR) Wilcoxon signed-rank test	35 (32.5, 38.5)	38.5 (36, 46)	<0.001
AIM 3 - Access to care score (mean $\pm$ SD) (Paired t-test)	$16.6 \pm 1.6$	$14.9 \pm 1.9$	<0.001

## Discussion

This project produced results consistent with the evidence found in our literature search, showing that with the use of telehealth and virtual health, medication-related quality of care was improved (Wechkunakul, 2020).

This study was also significant in showing that increased education on hypertension and when patients are shown the importance of following guidelines from their provider leads to better control of their disease process. These findings were found in similar research where telehealth was conducted to keep the patients engaged in the healthcare system by 83%; and improve adherence to medications by 84-86% (Friis, 2019; Wakefield, 2012).

This study focused on the reduction in blood pressure and medication adherence, the quality of care, and patients feeling that our geography limited their access to care. Our evidence-based study showed significant improvement in patient satisfaction with care P < 0.001, and access to care P < 0.001.

## Conclusion

In conclusion, overall, the telehealth intervention sessions teaching how to monitor their blood pressure, take their medications, the importance of their medications, and low sodium cardiac diet significantly improved patient satisfaction with their care and access to care. It improved adherence to medications, especially in the category of just forgetting to take them. The project was very successful.

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