

# Evaluation of a PHQ-2/9 Depression Screening Process

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## Introduction

- Problem:** Accessibility, availability, and acceptability are barriers for rural MH disparities.<sup>1</sup>
- 50 Million Americans live** In rural areas, **18.7%** suffers MH; **60%** lives in shortage areas, **65%** receive MH care from PCP; & **90%** MH services in Met./Urban areas.<sup>1-4</sup>
- Iowa:** 40% live in rural areas; 1 in 5 have MH condition.<sup>5-6</sup>
- USPSTF:** Depression screen for Adults, validated tool for better MH outcomes.<sup>7</sup>
- Good self-care behaviors** prevent Mental Health & Physical health complications.<sup>8</sup>

## Purpose

To alter and evaluate a depression screening process in a rural Iowa medical clinic.

- Expanded screening process for depression and self-care needs
- Staff Perceptions of ease and efficiency
- Provider experiences and observations of the psychological implications of COVID-19.

## Methods

Project was deemed not human subjects' research

- Setting:** NESCO Family Medical Clinic in Zearing Iowa.
- Population: Adults** 19 to 89 years old for all primary care visits.



- Expanded depression screening process
- Developed self-administered depression screener & self care assessment.
- Education with pre- and post surveys
- Implementation of depression screening tool.
- Data collection: PHQ-9 & self-inventory; chart review on preceding PHQ scores; Bi-weekly staff check-in's
- Bi-Weekly Staff Check-in's
- Evaluation and analysis of data

## Outcomes

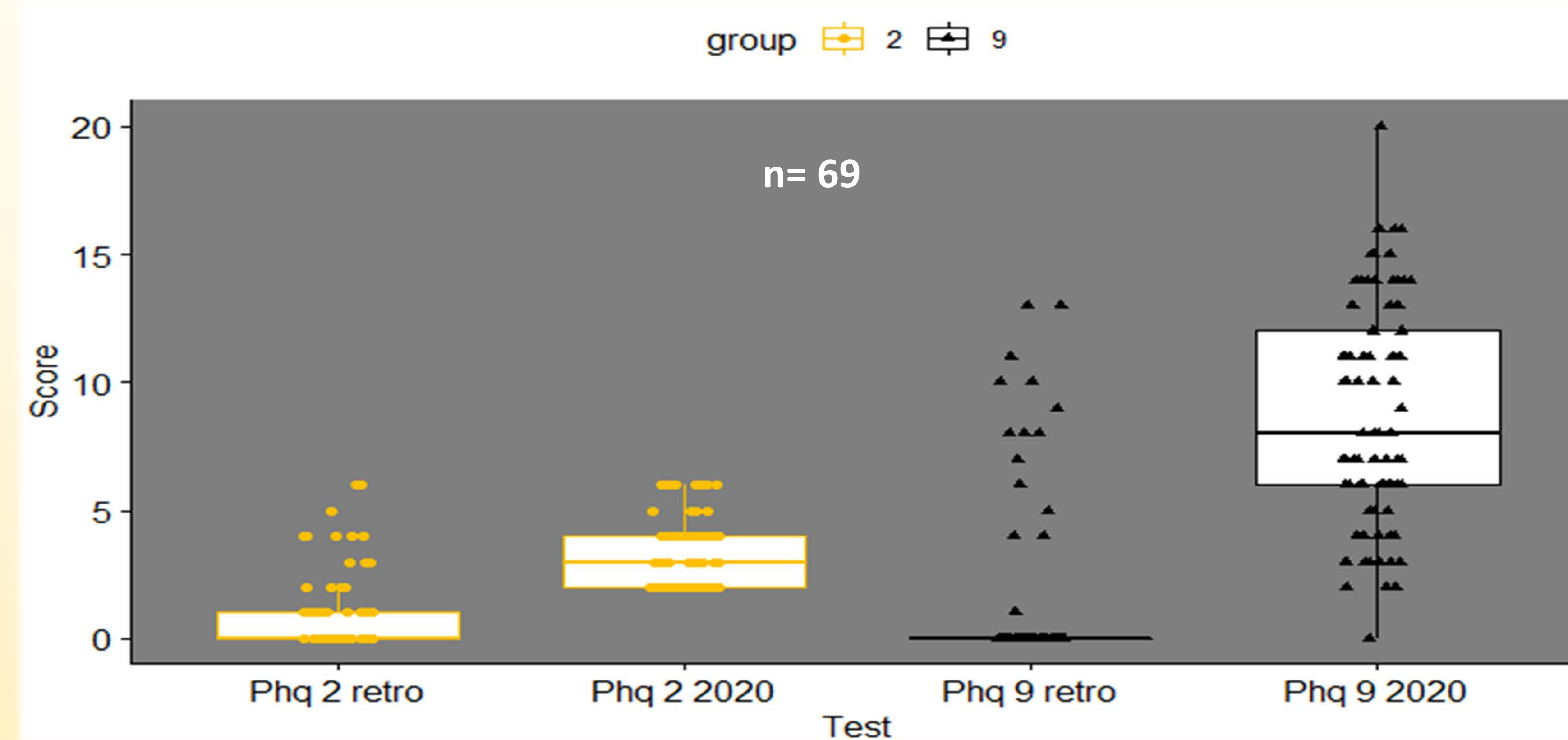
### Staff Perceptions

- Scope:** # of staff
- Simple to use
- Effective for depression & identification of self-care
- Efficient Process; Preferred over Prior Process
- Staff Comments:** "patients are more honest when they read and write an answer"

- staff (unknown)

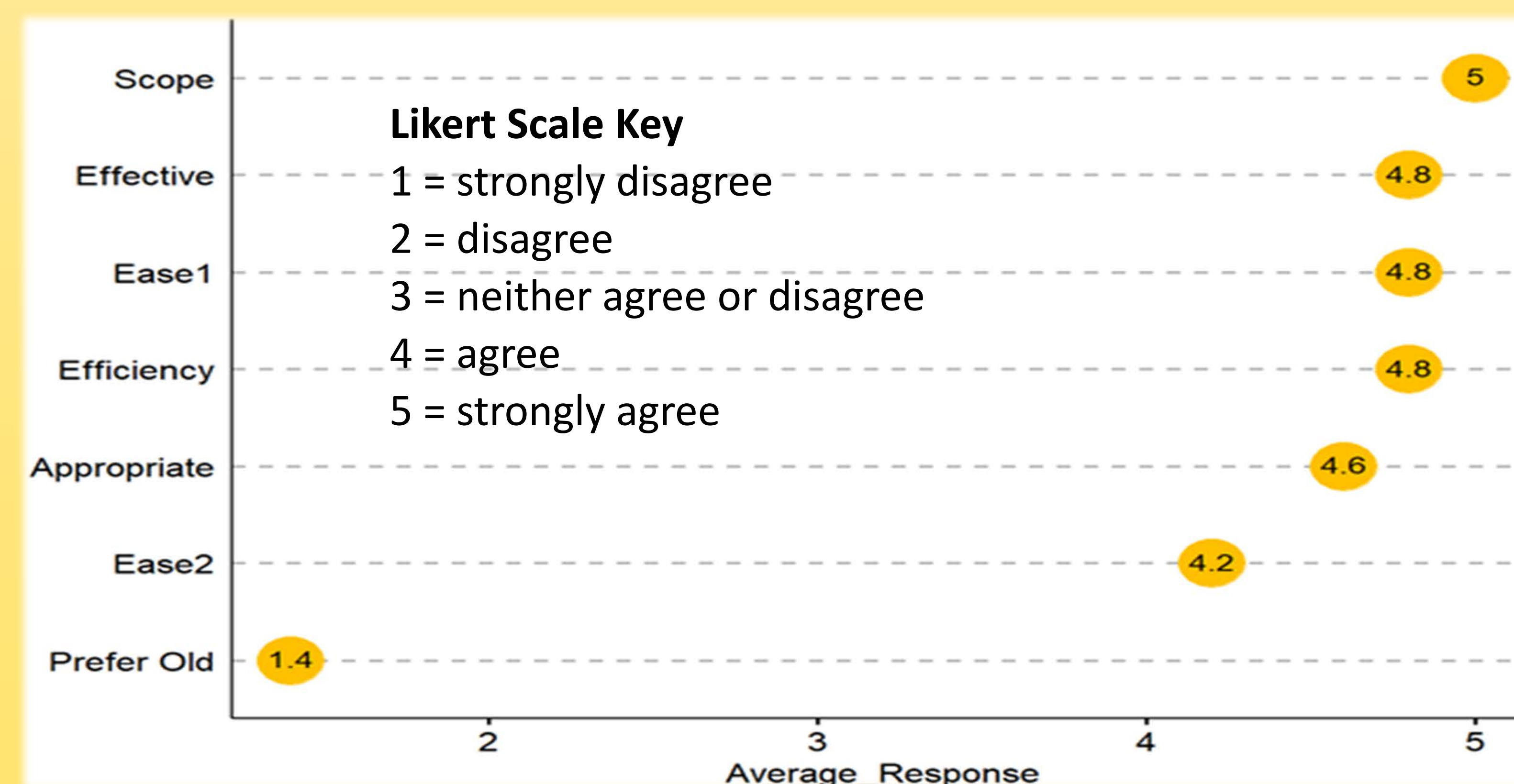
- Paired T-tests:** PHQ-9 significantly higher in 2020
- PHQ-9: 95% CL is 5.5 to 7.8 higher, estimated difference 6.7

Test	Scores.Retrospective	Scores.2020	Lower.Bound	Estimated.Change	Upper.Bound	PValue
PHQ-2	1.029	3.217	1.810	2.188	2.567	<2.2e16
PHQ-9	1.721	8.382	5.496	6.662	7.828	<2.2e16



- Self-care inventory:** Highest need identified Physical, followed Emotional, & then Psychological per 100 patients.

Measure	Per 100 patients	Lower	Estimate	Upper	P Value
Physical need		0.840	0.922	0.964	<.001
Emotional need		0.718	0.818	0.888	<.001
Psychosocial need		0.512	0.623	0.723	0.03



## What are the psychological implications you have observed from patients due to the pandemic?

- Provider 1:** "Our old people are suffering, dying from loneliness and fear. The virus is potentially serious in some people, but our policies surrounding it causes additional suffering, especially in the nursing homes"
- Provider 2:** " Due to the pandemic, there is even more mental health concerns in this community, not to mention the MH that is already suffered"

## Evaluation

- Self-administered screening tool:** effectively identified depression symptoms & self-care needs
- PHQ-9 scores: higher 2020 visits
- Self-Care:** Highest: Physical; then Emotional; & psychological least
- Staff Views: simple & efficient
- Limitations:** sample size; manual documentation-possible errors, saturation of depression screeners.
- Future Recommendations:** Repeat after Pandemic ; Adolescent Pop.

## Conclusions

- Increase in PHQ-9 scores from 2020 visits than retrospectively.
  - administration difference of depression screening process
  - Pandemic consequences
- Staff: Process simple, easy and efficient
- Dissemination:** Presentation to NESCO Family Medical Clinic & Possible Publication in The Journal of Rural Health

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