

## INTRODUCTION

- **Diabetes:** 7<sup>th</sup> leading cause of death (CDC, 2020).
- 50% of admitted patients have diabetes (Wilson et al., 2019)
- **Cost:** \$327 billion in medical costs annually ~ 1:4 health-related expenditure dollars (ADA., 2018)
- **Diabetes distress:** Emotions associated with the daily demands of living with diabetes (Polonsky et al., 2005)
  - Underreported in 25% of people with diabetes (CDC,2020)
  - Prevalent in 8.9% of those hospitalized compared to 1.2% seen in primary care (Kuniss et al., 2021)

### Organization's Practice Gap:

- Current practice at a tertiary hospital in Ohio does not screen patients for diabetes distress or tailor DSMES.
- All patients consulted for diabetes education currently receive a comprehensive DSMES care plan.
- ADA standards of diabetes medical care recommend that all patients are **assessed** and provided with **individualized** self-management education AND **emotional support** (ADA., 2018)

## OBJECTIVE

- **Purpose:** Implement diabetes distress screening (DDS-17) to tailor diabetes self-management education and support.
- **Aims:** Evaluate staff engagement in diabetes distress screening & identify patient's most distressing domains.

## AVAILABLE KNOWLEDGE

### John Hopkins Nursing Evidence-Based Practice: Synthesis Tool

	Cummings et al., 2017	Lutes et al., 2018	Tang et al., 2014	Tang et al., 2015	Hood et al., 2018	Presley et al., 2020
<b>Level of Evidence:</b>	II	II	II	II	VI	II
<b>Intervention:</b>	Small lifestyles change intervention	Small change lifestyle coaching	DSME and peer support	DSME and peer support	Culturally appropriate peer support groups.	DSME course and peer support.
<b>Instrument:</b>	DDS-17 scale	DDS-17 scale	DDS-17 scale	DDS-17 scale	DDS-17 scale	DDS-17 scale
<b>Outcomes Synthesis:</b>						
<b>HbA1c</b>	↓	↓	↓	—	NE	↓
<b>Diabetes Distress</b>	↓	↓	↓	↓	↓	↓

Symbol Key: ↑ = Increased, ↓ = Decreased, — = No Change, NE = Not Examined

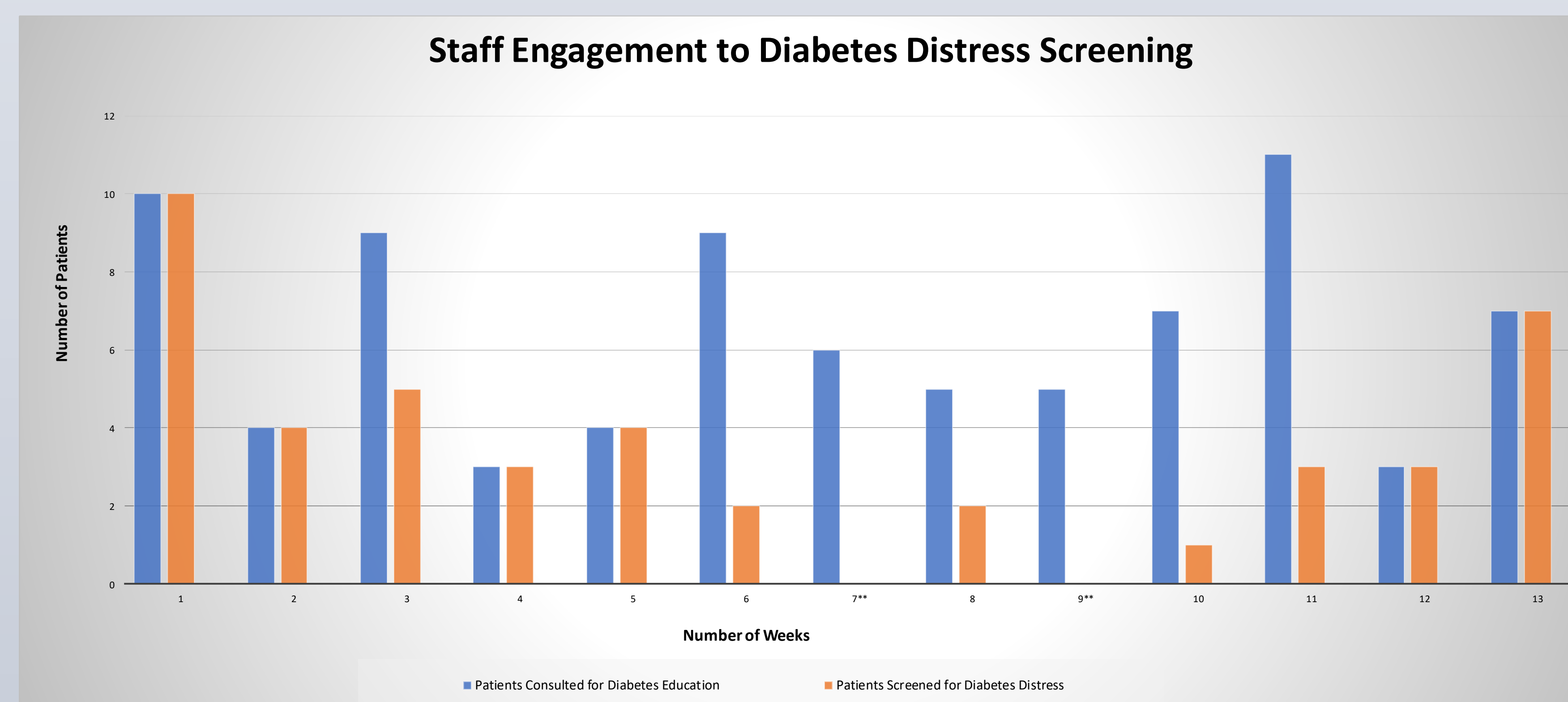
## METHODS

- DDS-17: valid and reliable.
- Cronbach's alpha 0.93 (Polonsky et al., 2005).
- 4 critical distress domains:
  - Emotional burden, Regimen distress, Interpersonal distress and Health-care provider-related distress
- Pre-implementation: IRB approval (NEBPRC), author permission, patient & staff education.
- Participants (N=51): admitted patients with HbA1c >9%
  - Excluded: newly diagnosed patients.
- Implementation: May- August 2022 (13 weeks): Screened for diabetes distress experienced in the past month.



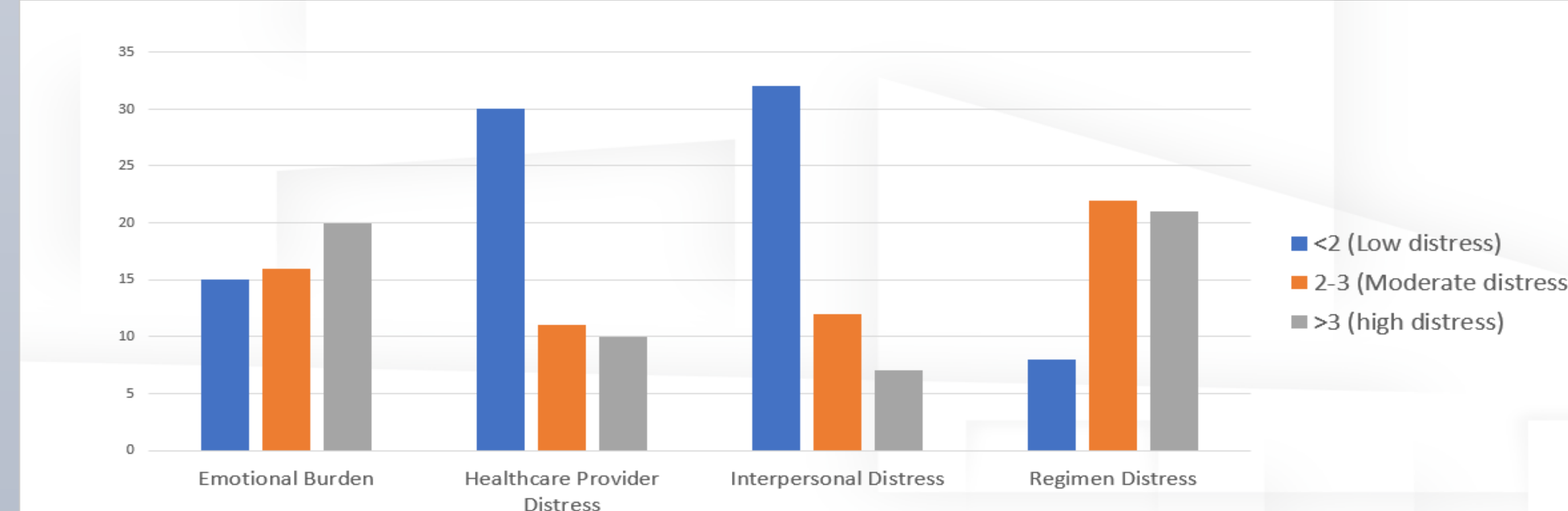
DDS-17 Tool

## RESULTS



Staff engagement: 73% of eligible patients (N=51) were screened for diabetes distress

## Diabetes Distress Domains



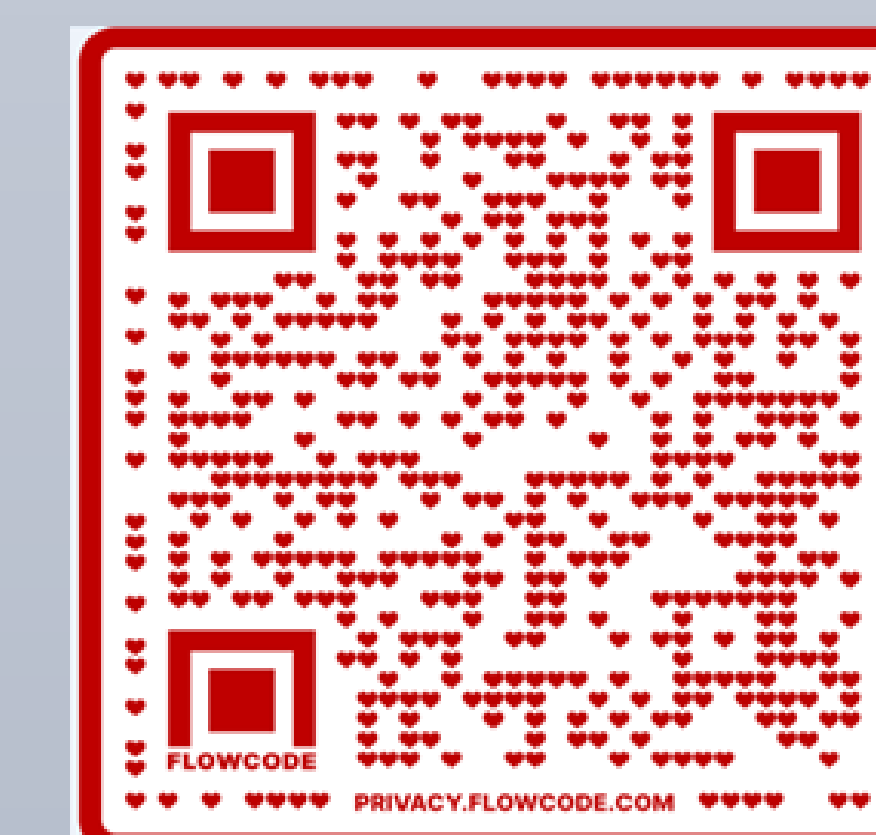
- Highest distress domains: Regimen distress (high - 41%); Emotional burden (high - 39%).
- Correlation coefficient  $r = 0.33$  (positive correlation; medium strength).

## CONCLUSIONS

- Evidence: shows diabetes distress impacts HbA1c.
- Project: showed evidence-based screening with goal to tailor DSMES can decrease distress & optimize A1C.
- Project aligned with ADA standards of emotional support and individualized patient care.
- Staff engagement barriers to distress screening:
  - Number & repeated questions in DDS-17 tool
- Common regimen distress related themes:
  - Dietary challenges, inconsistent glucose checks and insulin administration, limited resources/supplies and financial challenges.
- **Strengths:** PDSA cycles, change champions (diabetes care and education specialists)
- **Limitations:** small localized change (one hospital).
- **Next Steps:**
  - Use brief validated DDS-2 tool (focuses on regimen & emotional distress)
    - Strong correlation 0.89 (Fisher et al., 2008)
  - Problem-Solving Treatment (PST) to tailor DSMES
    - 7-step approach to implement individualized, SMART action plans (Pierce et al., 2007)



## REFERENCES



Contact: [judy.kariuki@ohiohealth.com](mailto:judy.kariuki@ohiohealth.com)