

# Improving Depression Screening and Monitoring Rates by Implementing Clinical Decision Support Tools at CUHCC

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Community-University Health Care Center

# Disclosures

The speaker has no actual or potential conflict of interest in relation to this presentation.



# Objectives

1. To summarize the importance of depression screening and monitoring
2. To review the clinical decision support (CDS) tools adapted to the depression screening and monitoring workflow
3. To compare the effectiveness of the implemented interventions on depression screening and monitoring assessments
4. To evaluate the impact of implementing CDS tools to achieve the clinic's depression screening and monitoring quality measure goals



*Background*

# Depression Prevalence

Depression is one of the most widely affecting mood disorders worldwide

In the U.S. alone the economic burden of untreated depression is about \$210 billion for medical costs and lack of workplace productivity

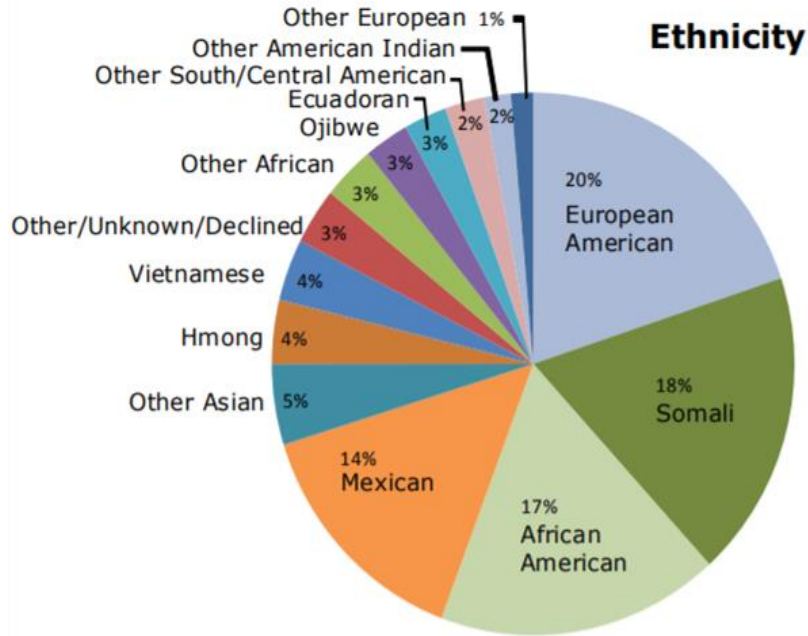
Risk factors for developing or worsening depression

- Lack of access or barriers to healthcare
- Comorbid chronic conditions
- Lower socioeconomic status
- Stressful life events





# Community-University Health Care Center



Federally qualified health centers (FQHCs) are required to

- Ongoing quality improvement programs
- Annual data reporting to Health Resources and Services Administration (HRSA)

# Clinical Decision Support Systems (CDSS)

CDSS - purpose is to improve the capacity of providing high quality healthcare through enhanced patient-centered and clinically supported medical decisions

- Enhance patient safety → i.e. SE or DDI alert system
- Clinical management
- Cost containment
- Diagnostic support
- Patient decision support
- Better documentation
- **Administrative function/automation** → i.e. aggregating data from sources
- **Workflow improvement** - i.e. improving retrieval and display of data



## *Project Aim*

**Goal:** Increase the rate of depression screening and monitoring (DS/M) from 17% to 25% for all clinically appropriate patients from January 1, 2022 to April 1, 2022 using CDS tools that require minimal “upkeep” maintenance

*Methods*

# HRSA UDS 2022 Quality Measures

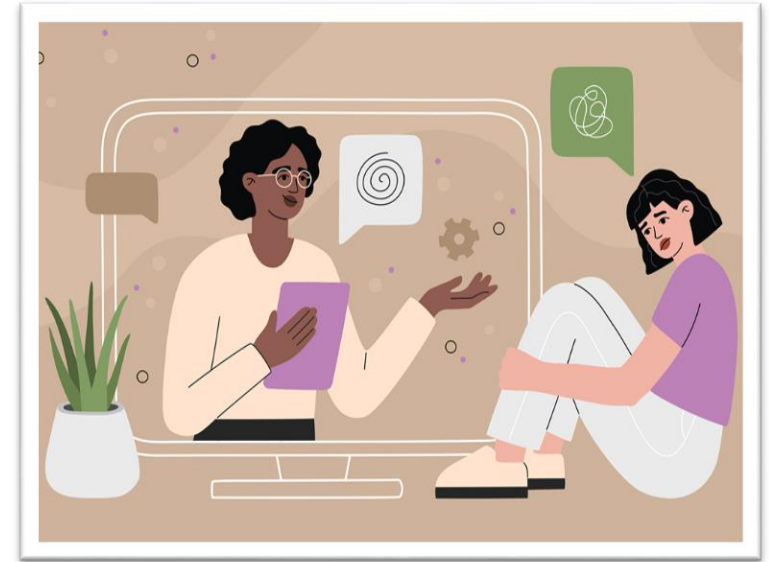
HRSA for 2022 Uniform Data System (UDS) Quality Measure includes:

- “MEASURE: Percentage of patients 12 years of age and older who were (1) screened for depression with a standardized tool *and* if screening was positive (2) had a follow-up plan documented”



# CUHCC's Current Practice

- PHQ to evaluate depression symptoms/severity based on the DSM-5 diagnostic criteria
- CUHCC DS/M Protocol
  - Screening annually
  - Monitoring every 3 months
  - Completion of DS/M assessment is documented into a note using a quality measure smartphrase, .MUUDS



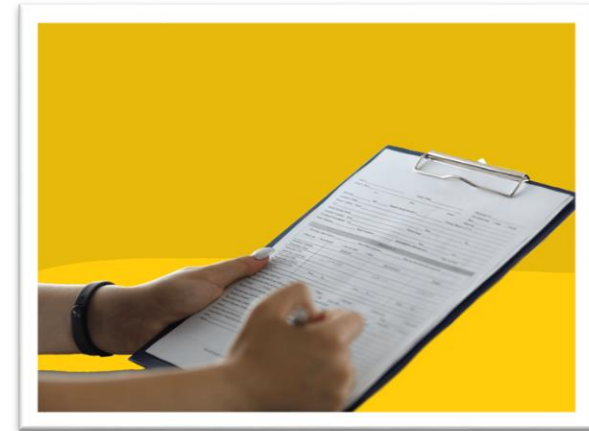
# OCHIN Epic UDS and Health Maintenance (HM)

DS/M assessment prompted for all individuals  $\geq 12$  years of age

- Annually for all
- Every 3 months for all with a depression on the problem list or on the OCHIN Epic Depression Registry

HM automatically satisfied by:

- One RESULTED age-appropriate satisfying depression assessment procedure
  - 12-17 years of age: PHQ-2, PHQ-M, **Adolescent PHQ-9**, the Pediatric Symptom Checklist (PSC-17), or the KDS-6
  - $\geq 18$  years of age: **PHQ-2**, **PHQ-9**, M3, and Geriatric Depression Scale (GDS)
  - For pregnant and postpartum: Edinburgh Postnatal Depression Scale (EPDS)



# Methods: 3 Clinical Decision Support Tools

## CDS-Tool 1

Progress Notes  
Speed Button



The screenshot shows a clinical note editor interface. At the top, there is a 'Create Note' dropdown menu with options: '1 GenPharmNote', 'Send to PCP', and 'Comr'. Below this, there are several tabs: 'PharmAsthma', '2 My Anticoag', '4 PHARMCONSULT', and '5 MUUDS'. The '5 MUUDS' tab is circled in red, and a red arrow points to it from the left. Below the tabs, there is a 'My Note' section with a 'Tag' button and a 'Share w/ Patient' button. At the bottom, there is a rich text editor toolbar with various icons and a text input field containing 'Insert SmartText'.


## CDS-Tool 2

Depression Screen  
HM Status Column

Patient	Pref Langui	Inter	Depressio
	English	No	↓
	English	No	↓
	English	No	↓
	English		✓
	Spanish	Y...	↓

## CDS-Tool 3

Modifying  
SmartPhrase Note  
Template



The screenshot shows a SmartPhrase note template. At the top, there is a toolbar with icons for undo, redo, and other actions. Below the toolbar, there is a text input field containing the following text: 'The following were addressed in today's visit: {Regulatory Documentation:21766}'. The text '{Regulatory Documentation:21766}' is highlighted in yellow.

# Methods: PHQ Completion Tracking

1

- Baseline PHQ completion rate tracked between 1/1/2022 – 1/31/2022

2

- 2/8/22: Medical provider meeting held + Emailed out handout on the CDS tools

3

- 1 pharmacist + 10 medical providers were pre-selected to confirm if they incorporated any CDS tool

4

- Intervention DS/M completion rate measured 4 weeks from CDS tool confirmation date

5

- Baseline DS/M vs post-intervention DS/M completion rates were compared for all providers based on what interventions were received

# Results





# Results:

Primary outcome was the change in DS/M assessment rates after interventions were in place

- Overall the clinic observed a positive percentage point difference
  - 17% (n = 133/773) at baseline and 24% (n = 169/717) after interventions
- 16 of 26 providers attended the medical provider meeting
  - 7 of the pre-selected providers attended the medical provider meeting

% Δ = percentage change in DS/M done

Avg pts = Average patients

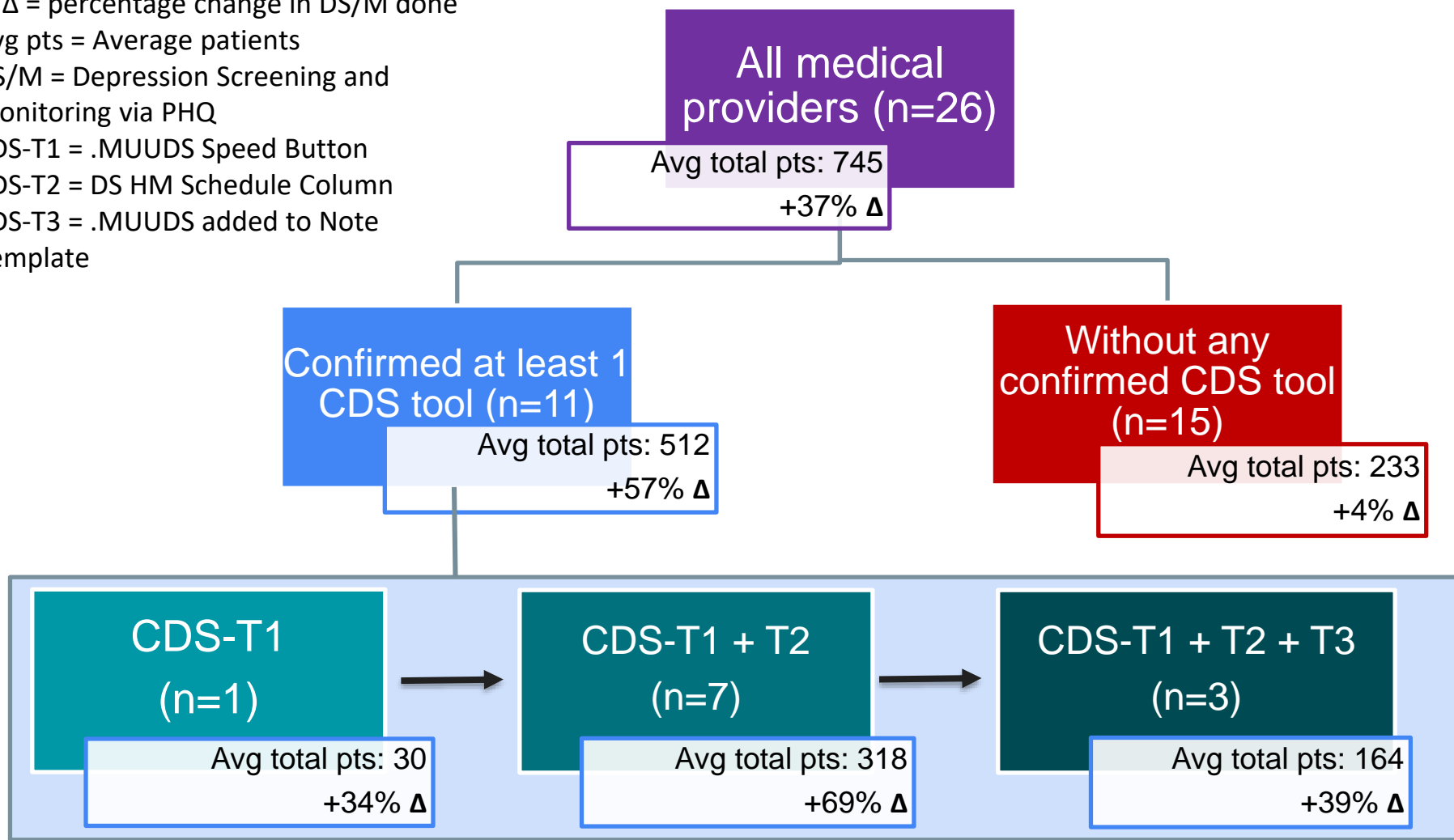
DS/M = Depression Screening and Monitoring via PHQ

CDS-T1 = .MUUDS Speed Button

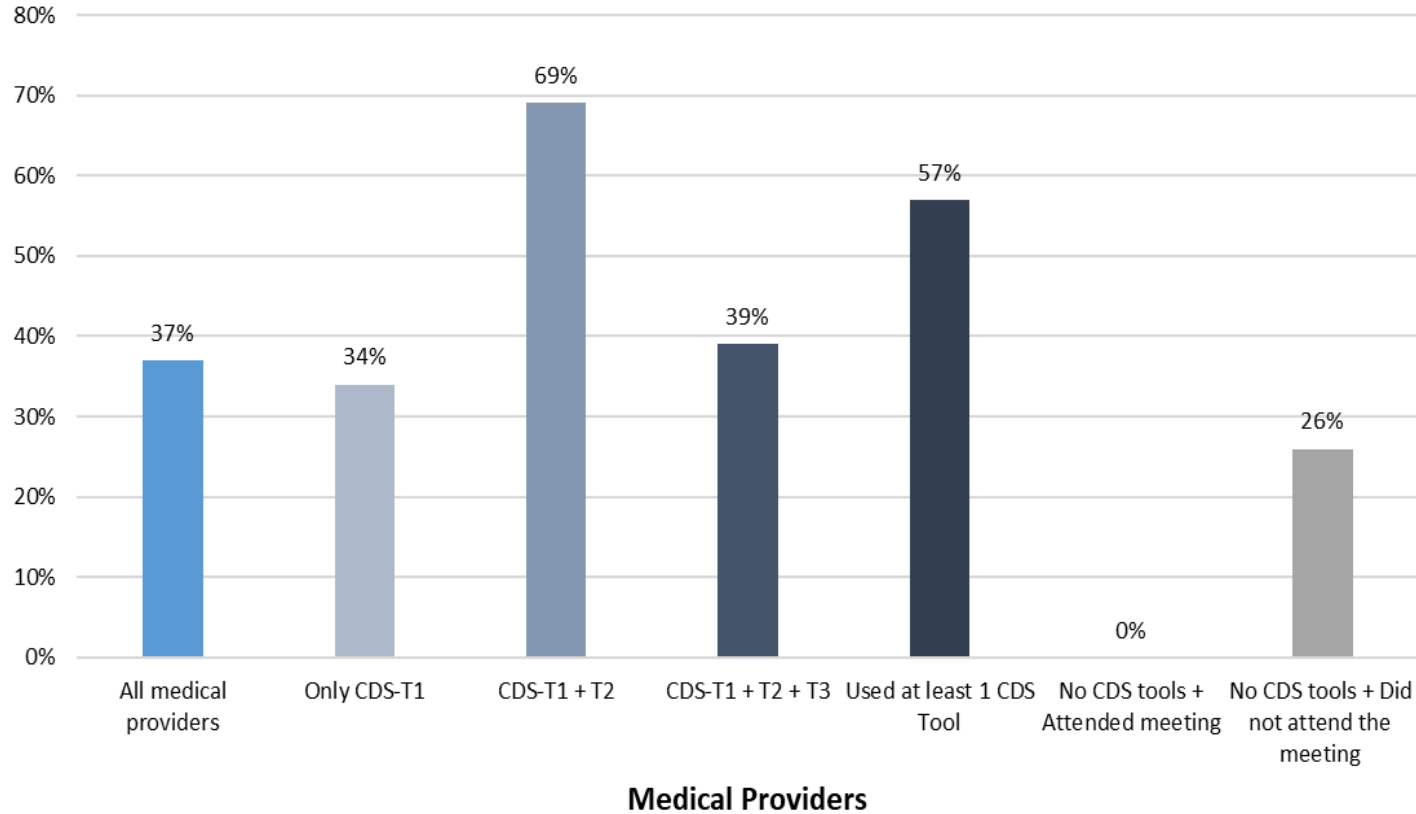
CDS-T2 = DS HM Schedule Column

CDS-T3 = .MUUDS added to Note

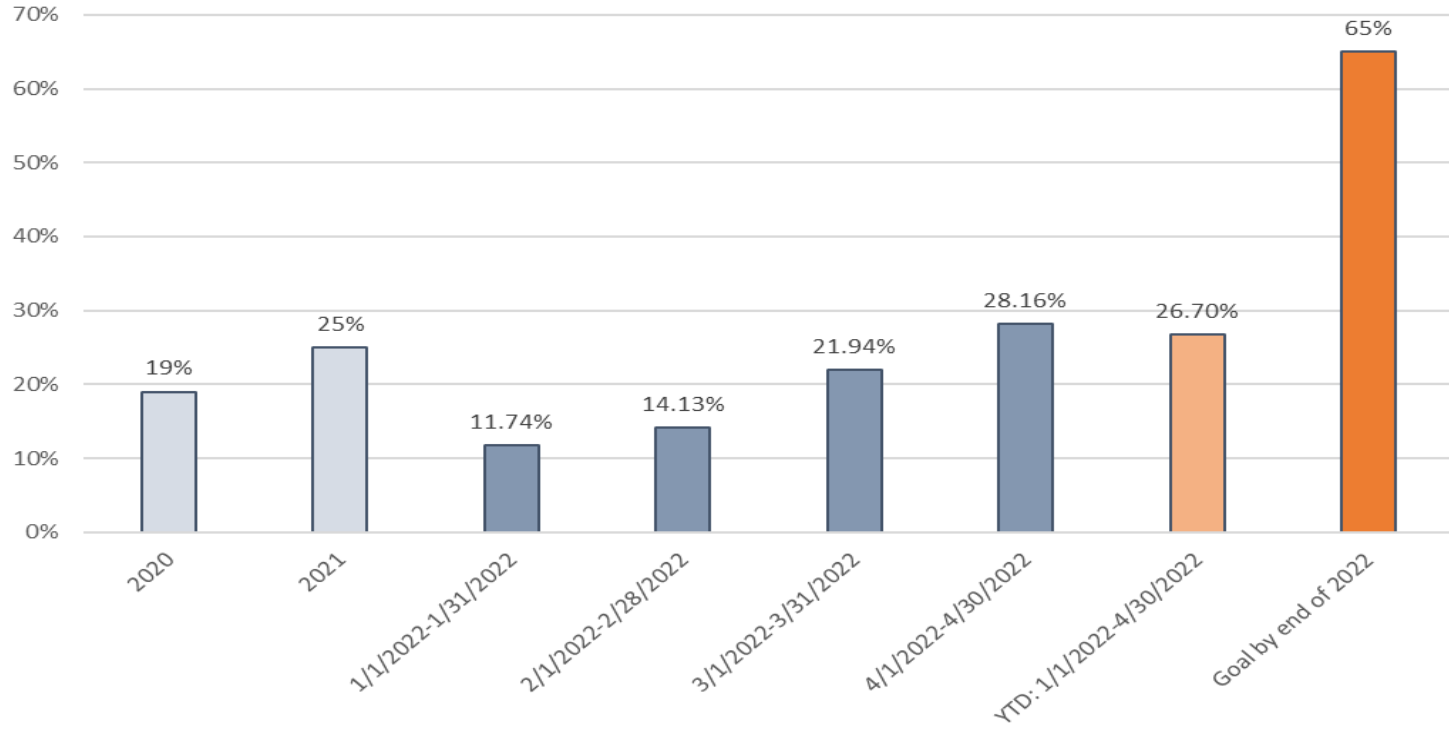
Template



## Percentage Change in Depression Screening and Monitoring Rate



## CUHCC UDS Depression Screening and Follow-up Results



*Discussion*

# Discussion

- +57% DS/M rate for the 11 providers w/ use of at least 1 CDS tool
- Would expect CUHCC's UDS DS/M quality measure to increase
  - Currently, CUHCC UDS goal is 65%
  - End of 2021 – CUHCC's UDS DS/M rate was 25%
  - End of April 2022 – CUHCC's UDS DS/M rate was 26.70%
- Providers with greater patient volumes have a greater influence on progress towards meeting UDS quality measure goals



# Discussion

- Greatest improvement in combo use of CDS-T1 + -T2; +69% change
- The likelihood to incorporate new tools was greater when additional support to connect the individual's current workflow and goals to the right tools



# Limitations

- Completion of PHQ does not equate to improvement in UDS quality measure
  - Education was provided to remind providers but at this time there wasn't a way to measure how often this was done
- Pre-visit preparing and communication between provider and triaging/CMA staff is not a consistent process at this time





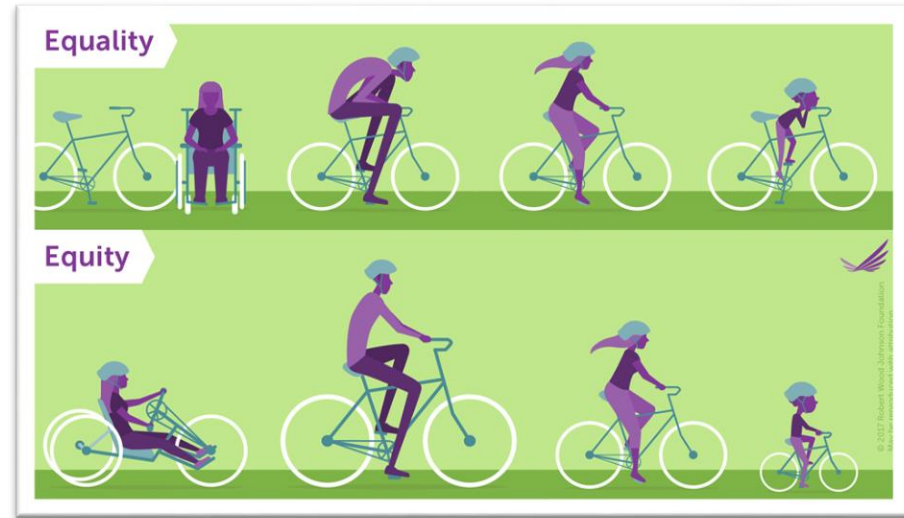
# Overcoming Limitations

- Encourage conversations of using CDS tools with anyone that see patients including learners
- Refer to the Depression Screening and Monitoring sources:
  - Depression Screening Protocol (0006) for CUHCC's current practice protocol
  - Appendix approval in progress
  - Depression Screening, Monitoring and Follow-up (7/23/2020) training video
  - OCHIN Ella has additional information on UDS quality measures CDSS
- Seeking additional support from Epic Super Users on how to use these and other CDS tools in Epic



# Conclusion

- DS/M is an important quality measure to uphold especially in community clinics given the risk factors faced by their patient population that can worsen health outcomes
- CDS tools are key for improving quality measures, like DS/M rates
- Expect to see clinic's UDS quality measure for DS/M rate to move towards the goal over time with the implementation of these CDS tools to reduce the care gaps associated with depression



# Future Prospects

Ongoing discussion with other stakeholders at the clinic to expand the application of CDS tools for aiding the DS/M process from a to z

- Front desk
- Triage staff
- Other nursing staff
- Other providers

Investigating the capacity to encourage a patient decision support CDSS where PHQ assessments are sent via MyChart

- Overcome language barriers
- Improve workflow



## Sending Screenings via Mychart<sup>^</sup>

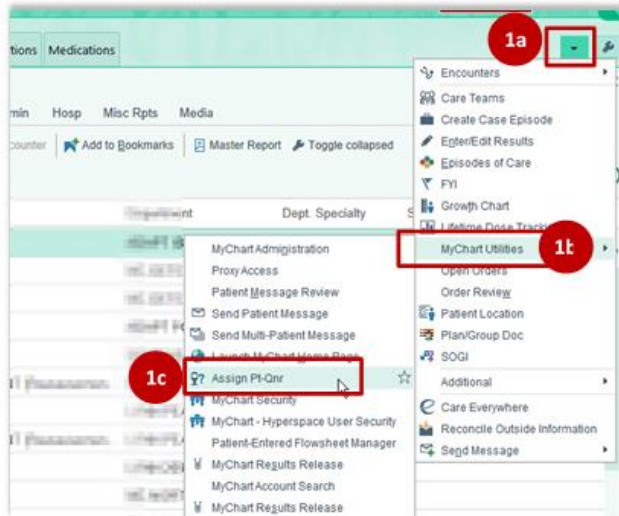
With this measure, it is possible to send the patient a depression screening, up to 14 days ahead of the visit. The screening **MUST** be attached to a specific visit to be included for UDS reporting purposes.

To attach a screening to a specific visit:

1. Within Chart Review navigate to

- a. **More** down carrot
- b. **MyChart Utilities**
- c. **Assign Pt-Qnr**

i. It is possible to **star** this activity for future needs.



# Self-assessment: What are risk factors for depression?

- A. Lack of access or barriers to healthcare
- B. Comorbid chronic conditions
- C. Stressful life events
- D. Lower socioeconomic status
- E. All of the above



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- A. Lack of access or barriers to healthcare
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- E. **All of the above**



# Self-assessment: What kind of CDS tools were used? (Select all)

- A. Enhance patient safety
- B. Cost containment
- C. Administrative function/automation
- D. Workflow improvement







# Acknowledgements

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## Project Advisors:

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# Questions?

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