

Screening for Depression and Anxiety in Adolescents with Chronic Medical Conditions Cared for at the ECU Physicians Pediatric Specialty Clinic

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Unified Quality Improvement Symposium

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- Adolescents with chronic medical conditions are at higher risk for the development of depression and anxiety.
- The presence of mental health disorders can be associated with non-adherence with care plans and poor disease control.
- Mental health disorders often go undiagnosed in adolescents.
- Screening tests administered during routine clinic visits can aid in the identification of patients who may benefit from mental health services.

- While many providers at PSC report that they screen for mental health concerns, documentation in the EHR is lacking...

Baseline Data – 2019



Chronic Medical Condition	Number of patients 12 to 21 years with an EHR encounter	Percent of patients with a PHQ-9 noted in the EHR (absolute number)	Percent of patients with a GAD-7 noted in the EHR (absolute number)	Number of new referrals to clinic LCSW (percent)
Diabetes	514	2.1% (11)	1.9% (10)	12 (2.3%)
Inflammatory Bowel Disease	82	2.4% (2)	3.7% (3)	4 (4.9%)
Cystic Fibrosis	8	10% (1)	10% (1)	0 (0%)
Renal Transplant	8	0%	0%	1 (12.5%)
HIV/AIDS	10	0%	0%	1 (10%)
Total	622	2.3% (14)	2.3% (14)	18 (2.9%)

Collaborative Team Members



- Jennifer A. Sutter, MD - Co-Pediatric Outpatient Medical Director - Pediatric Specialty Clinics and Division Chief for Pediatric Endocrinology
- Rhonda Strickland, MBA, BSN, RN - Nurse Manager for Pediatric Specialty Clinics
- Crystal Garman, MSW, LCSW - Pediatric Specialty Care Clinic
- Joanie Tyson, MBA - ECU Clinical Informatics Team
- Emily Downs, M2 - Leader in Innovative Care Scholar, Brody School of Medicine
- Dana Smith, C-PNP, MSN, RN – Clinic Nurse, Pediatric Specialty Care Clinic
- Clinical staff at the ECU Physicians Pediatric Specialty Care Clinic

Why does the Care Gap Exist?

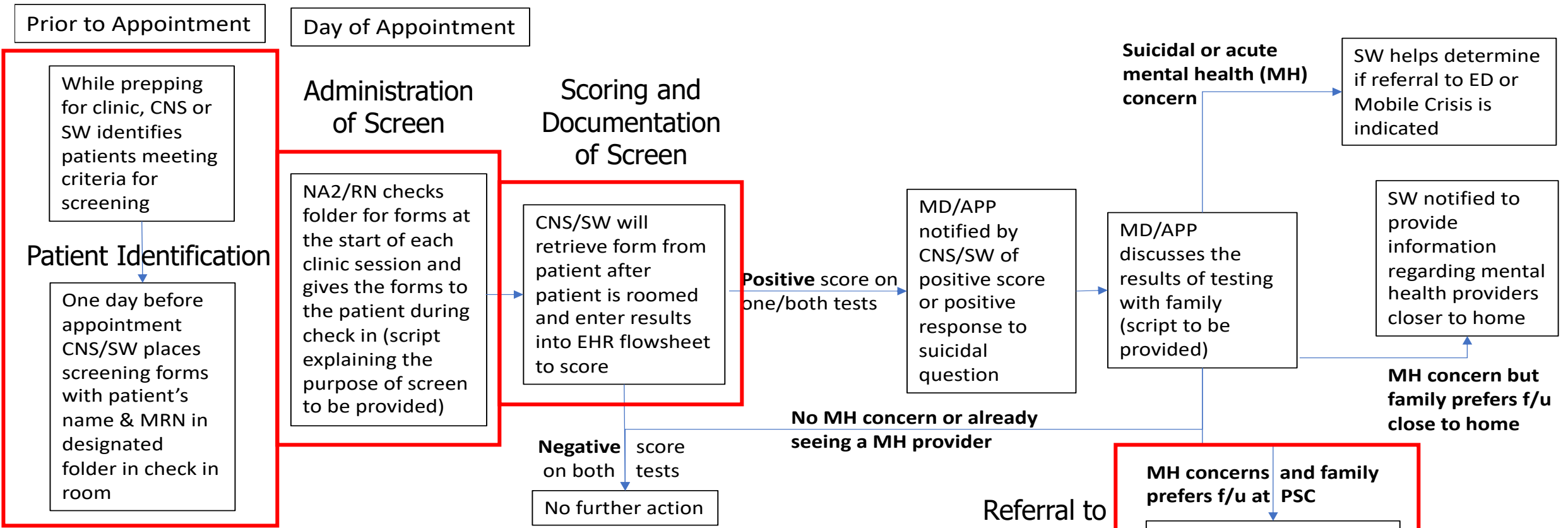


- Lack of a formal process to screen for depression and anxiety and document the results in the EHR
 - Selection Bias – Screening only patients displaying symptoms
 - Apparent Care Gap – Formal and informal screens are not captured in the EHR in a way that can be reported
- Lack of awareness of mental health services available at the ECU Physicians Pediatric Specialty Care Clinic

Through the development and implementation of a formal and standardized screening process for depression and anxiety we aimed to:

1. Increase the **percentage** of adolescents age **12 to 21 years** with either diabetes, inflammatory bowel disease, cystic fibrosis, a kidney transplant or HIV/AIDS cared for at the ECU Pediatric Specialty Care Clinic who have an **annual screen** using a validated tool for depression or anxiety (**PHQ-9 or GAD-7**) **documented in the EHR** from **2% to 20%** in 6 months.
2. Increase the **number of internal referrals** for adolescents aged **12 to 21 years** without an established mental health provider with either diabetes, inflammatory bowel disease, cystic fibrosis, a kidney transplant or HIV/AIDS who are cared for at the ECU Pediatric Specialty Care Clinic to **Crystal Garman, MSW, LCSW** by **20%** in 6 months.

PDSA 1: Initial Screening Protocol



Depression and Anxiety Screening in Adolescents at the Pediatric Specialty Care Clinic (Version 1)

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Urgent referral: Vicki Hayes contacts family to schedule appointment (script to be provided)

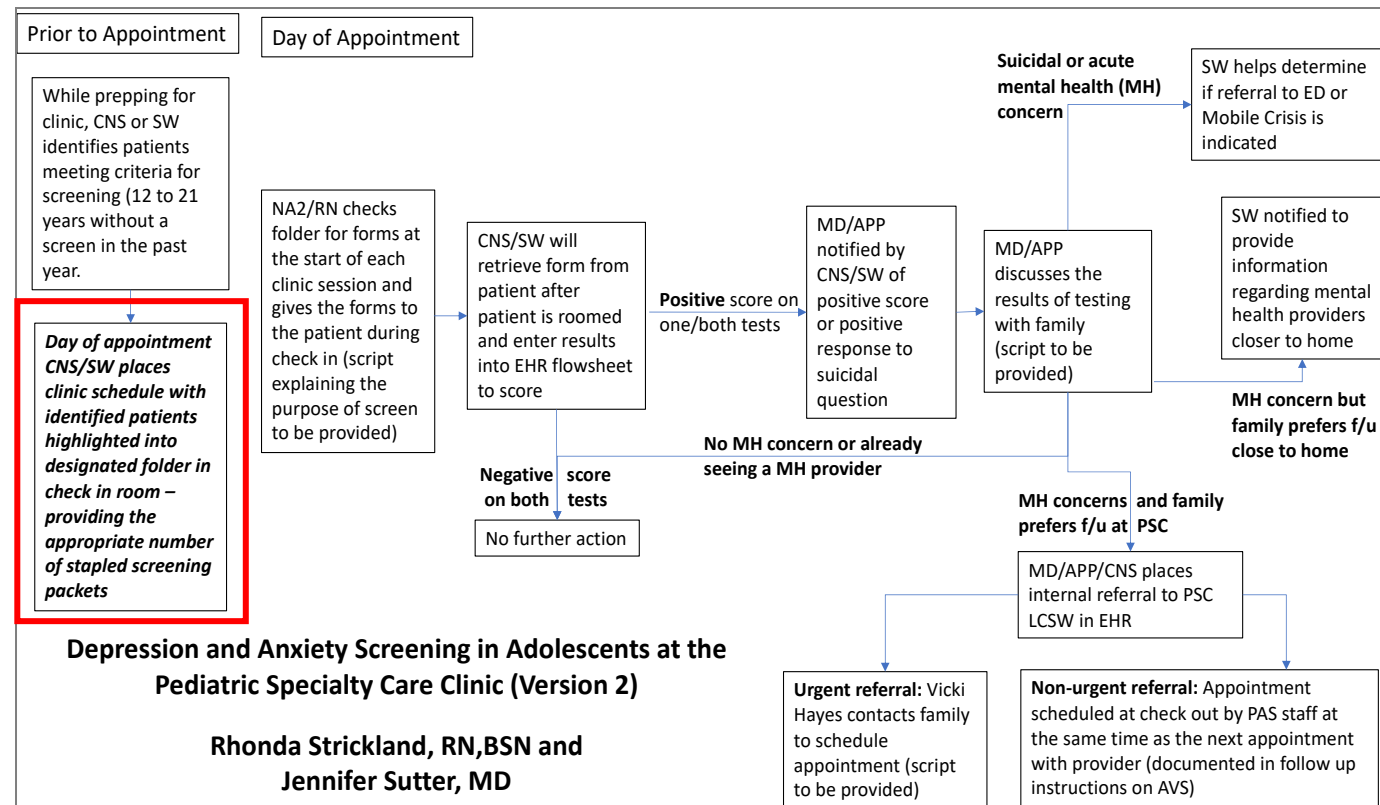
Non-urgent referral: Appointment scheduled at check out by PAS staff at the same time as the next appointment with provider (documented in follow up instructions on AVS)

- Collaborated with ECU Physicians Clinical Informatics Team to generate a quarterly report using ICD-10 codes, age criteria and visit status
 - Annual screening rate for PHQ-9 (flow sheet value)
 - Annual screening rate for GAD-7 (flow sheet value)
 - Number of new referrals to Crystal Garman (order number)

- Presented protocol and baseline data to clinical teams (January 2020)
 - Providers, nurses and social workers from the Divisions of Pediatric Endocrinology, Gastroenterology, Pulmonology, Nephrology and Infectious Disease
 - Lunch time and 5pm meeting
 - Education about Mental Health Services at PSC - Crystal Garman discussed the chosen screening tests and services she is able offer patients with mental health concerns
 - Solicited feedback – minimal provided

- PDSA 2: Test of change in Pediatric Diabetes Clinic with individual chart audits (Feb 3rd, 2020 to March 13th, 2020)
 - Patients received screens for other patients – modified protocol (patient identification)

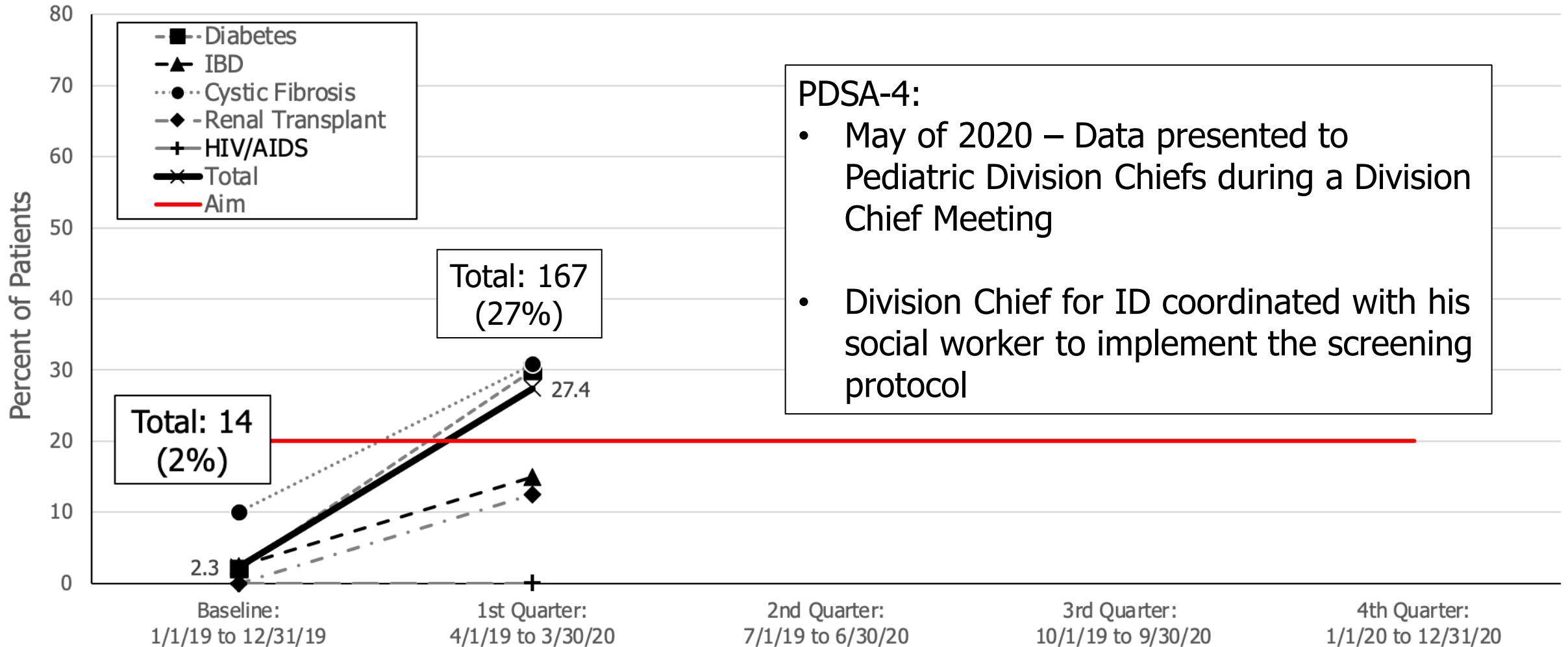
- Provider discomfort with positive screens – education and reassurance that resources where in place to properly manage a positive screen.



- PDSA 2: Test of change in Pediatric Diabetes Clinic with individual chart audits (Feb 3rd, 2020 to March 13th, 2020)
 - Patients received screens for other patients – modified protocol (patient identification)
 - Provider discomfort with positive screens – education and reassurance that resources were in place to properly manage a positive screen.
- PDSA 3: Gradual roll out to other sections with individual chart audits (GI – 2/24, CF/Nephrology – 3/9, ID – 3/16)
 - Only occurred in the GI clinic...
 - No renal transplant or CF patients met criteria
 - Screening in ID did not start on March 16 due to COVID-19 pandemic

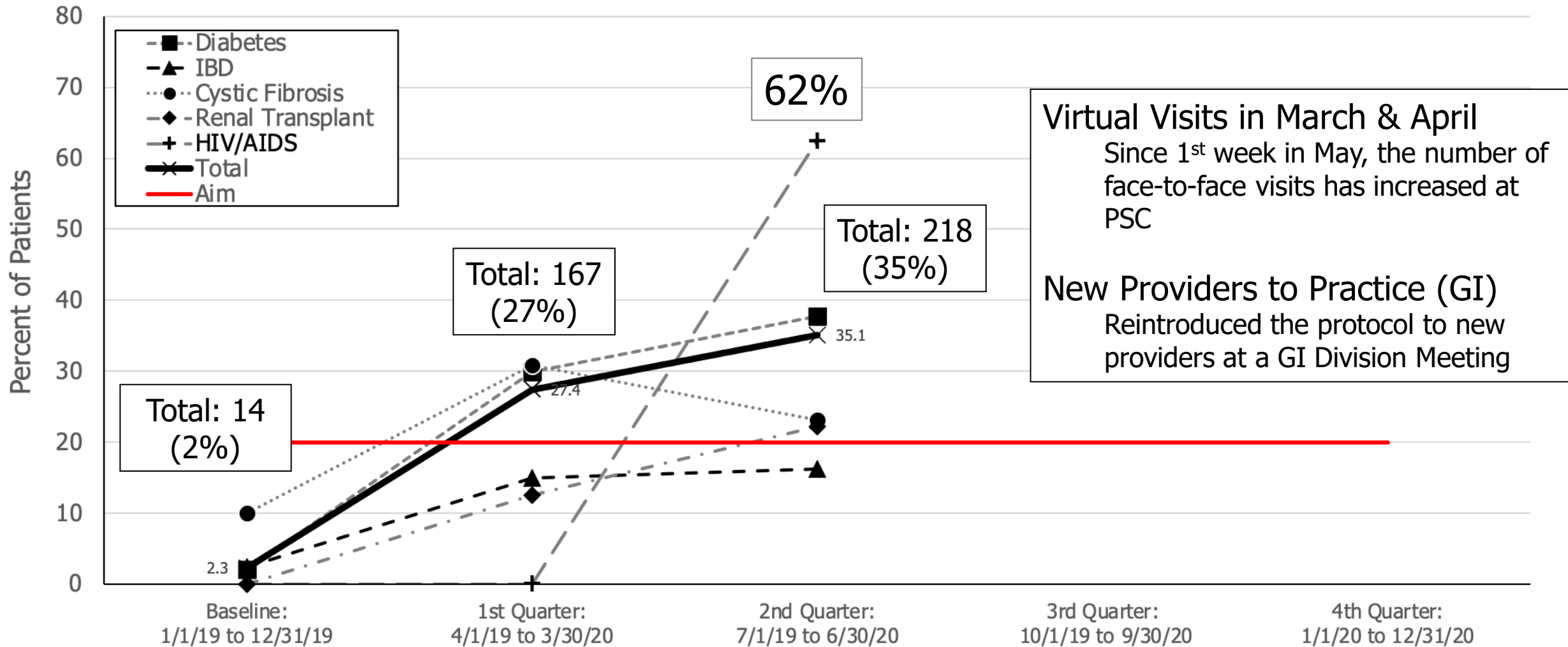
Outcomes – PHQ-9

Percent of Patients Aged 12 to 21 Years with a Chronic Medical Condition seen at PSC in the Past Year with a PHQ-9 Documented in the EHR

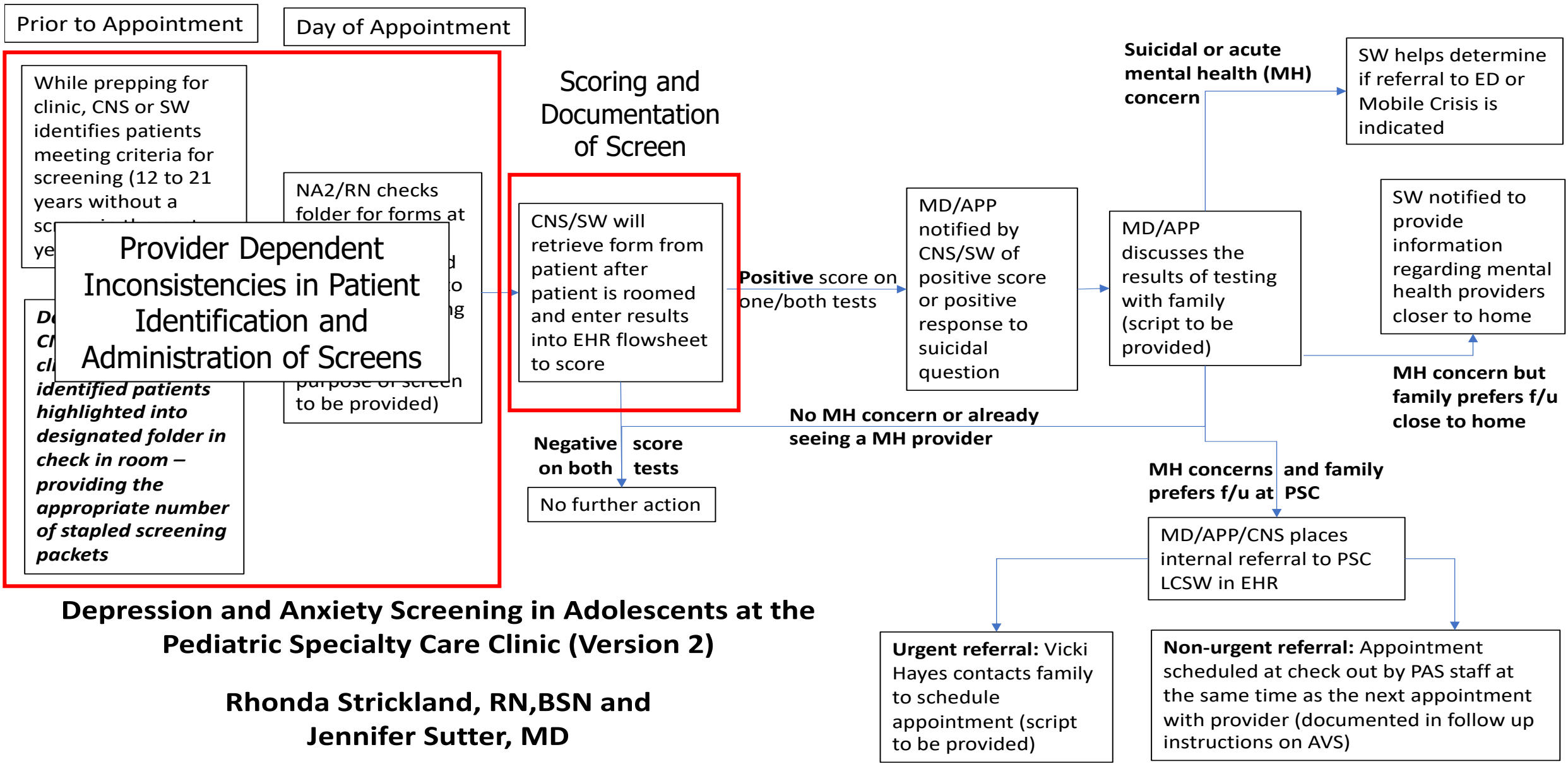


Outcomes – PHQ-9

Percent of Patients Aged 12 to 21 Years with a Chronic Medical Condition seen at PSC in the Past Year with a PHQ-9 Documented in the EHR



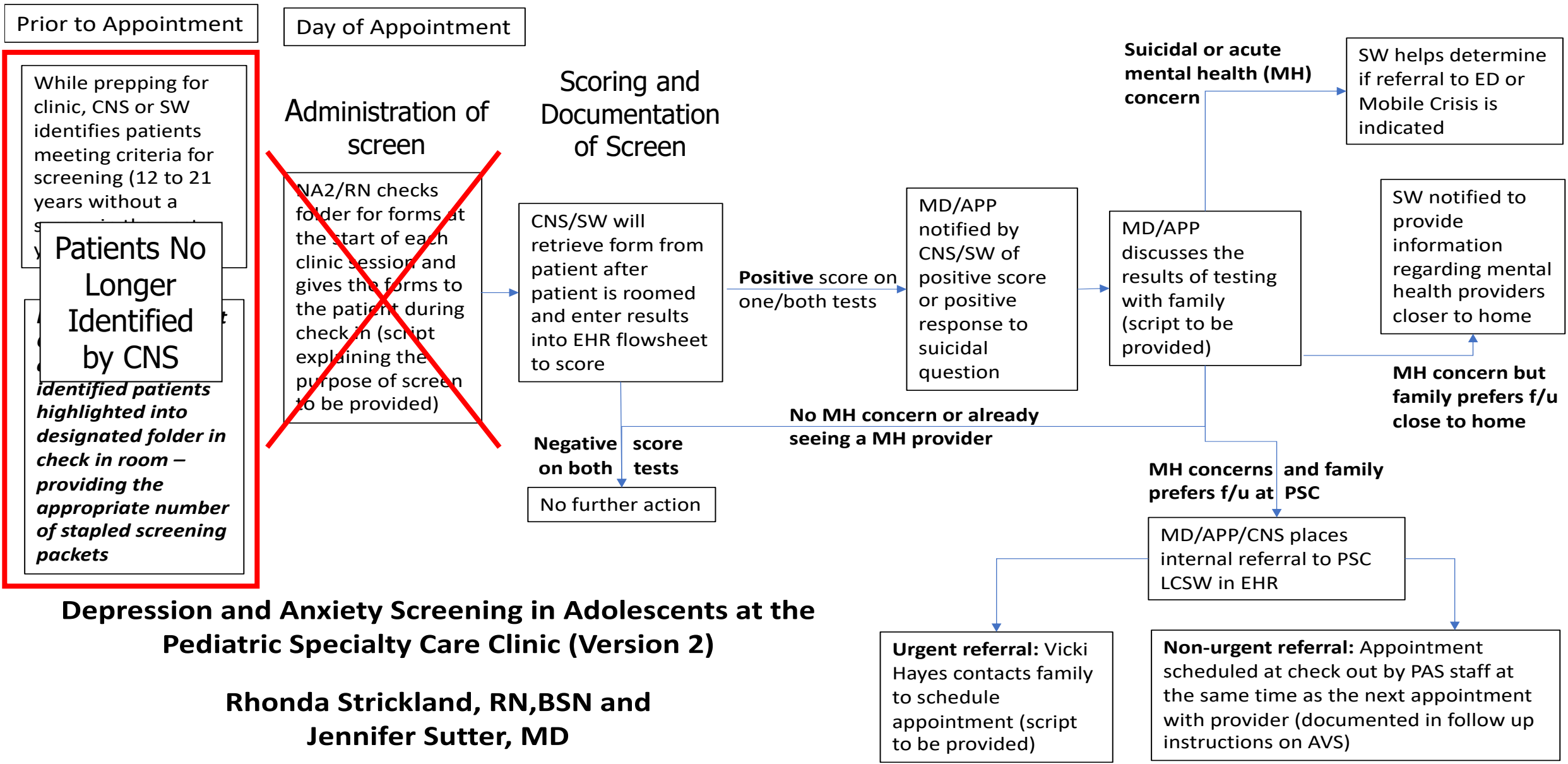
PDSA 4: Data Analysis and Conclusions (Diabetes Clinic)



Depression and Anxiety Screening in Adolescents at the Pediatric Specialty Care Clinic (Version 2)

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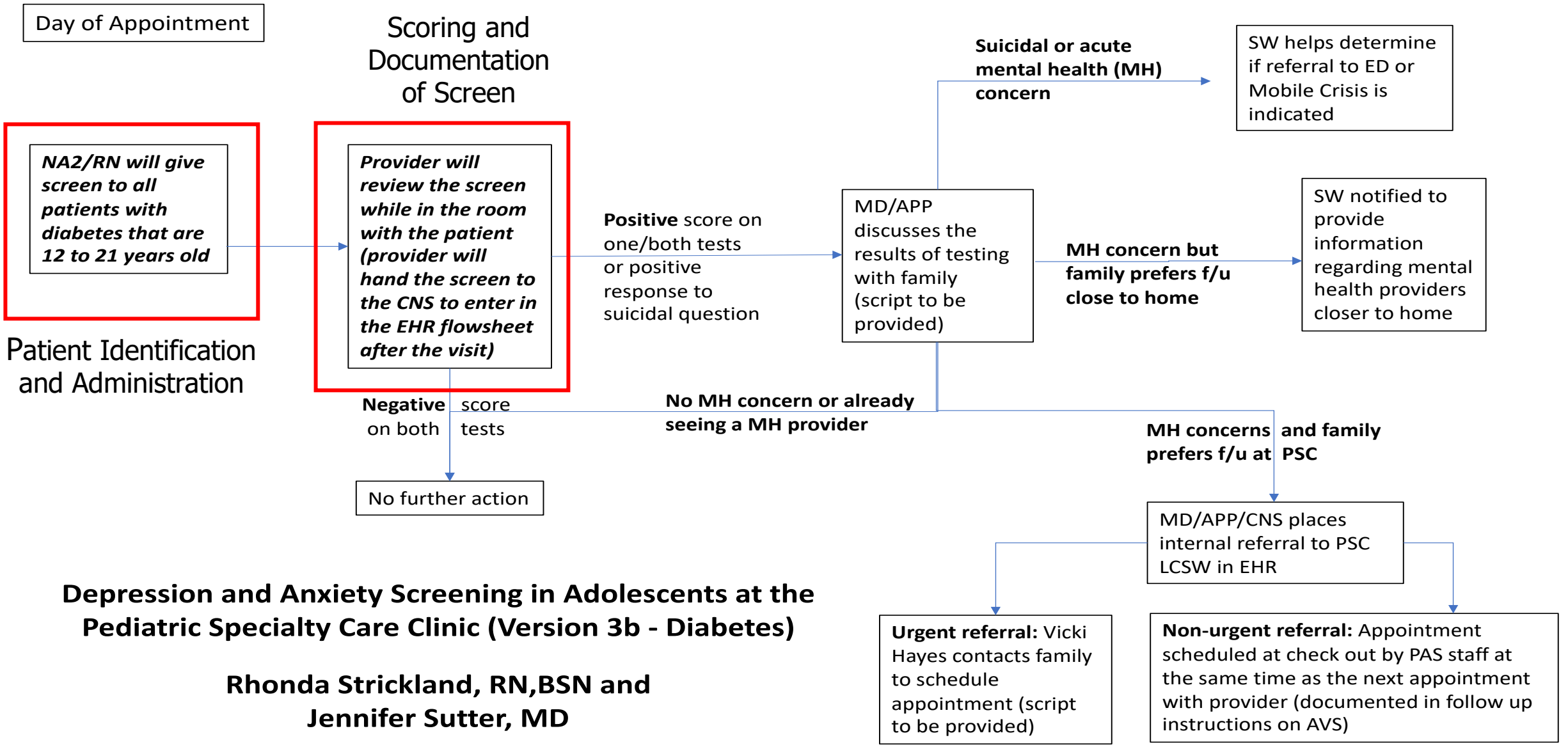
PDSA 4: Data Analysis and Conclusions (All other clinics...)



Depression and Anxiety Screening in Adolescents at the Pediatric Specialty Care Clinic (Version 2)

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PDSA 4: Data Analysis and Conclusions (Diabetes Clinic)



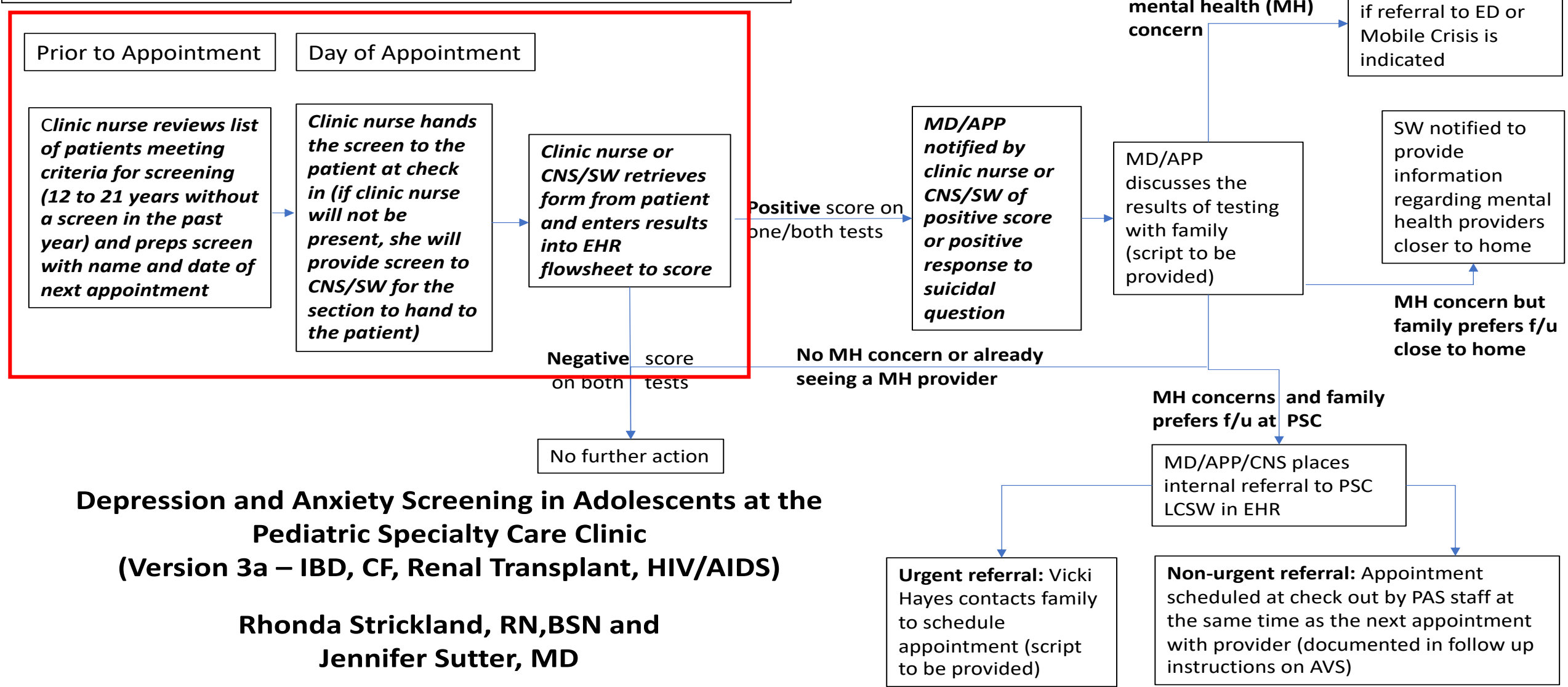
Depression and Anxiety Screening in Adolescents at the Pediatric Specialty Care Clinic (Version 3b - Diabetes)

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PDSA 4: Data Analysis and Conclusions (All Other Clinics...)



Patient Identification, Administration, Scoring and Documentation

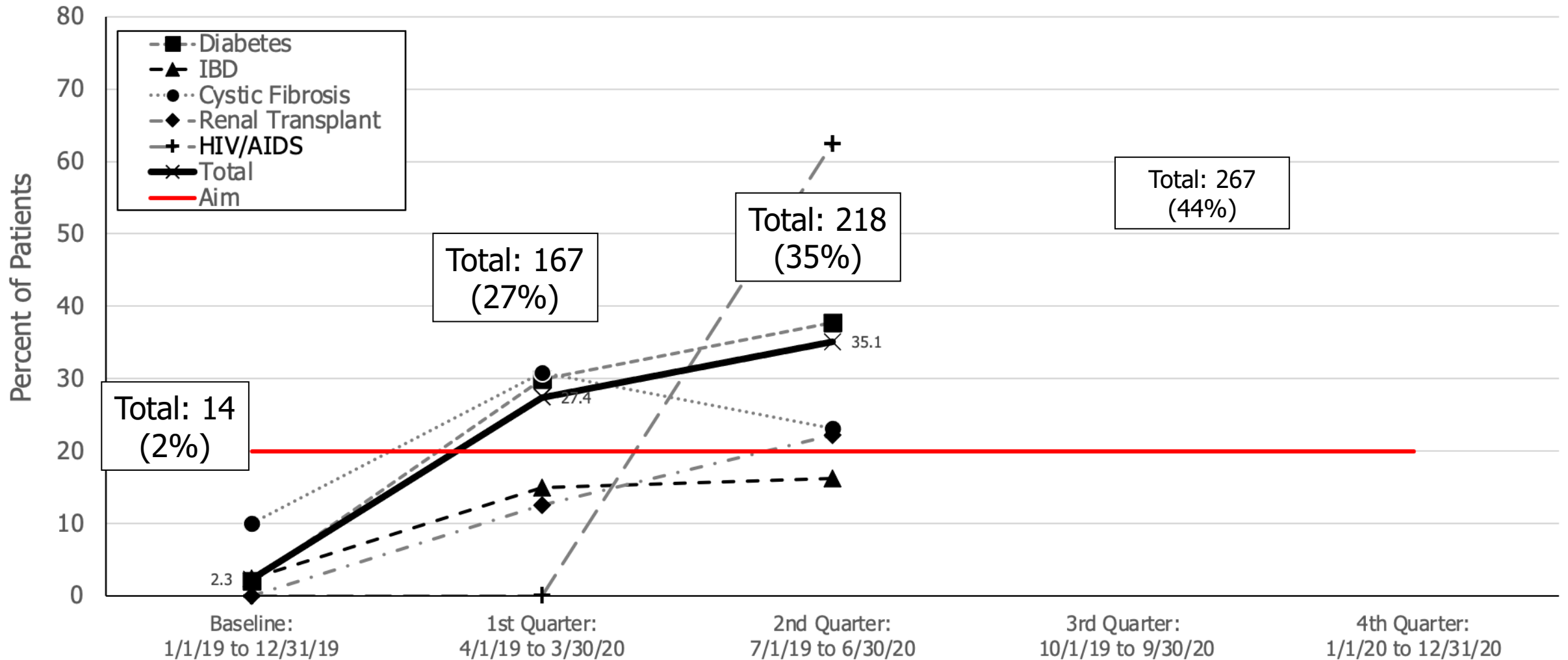


Depression and Anxiety Screening in Adolescents at the Pediatric Specialty Care Clinic (Version 3a – IBD, CF, Renal Transplant, HIV/AIDS)

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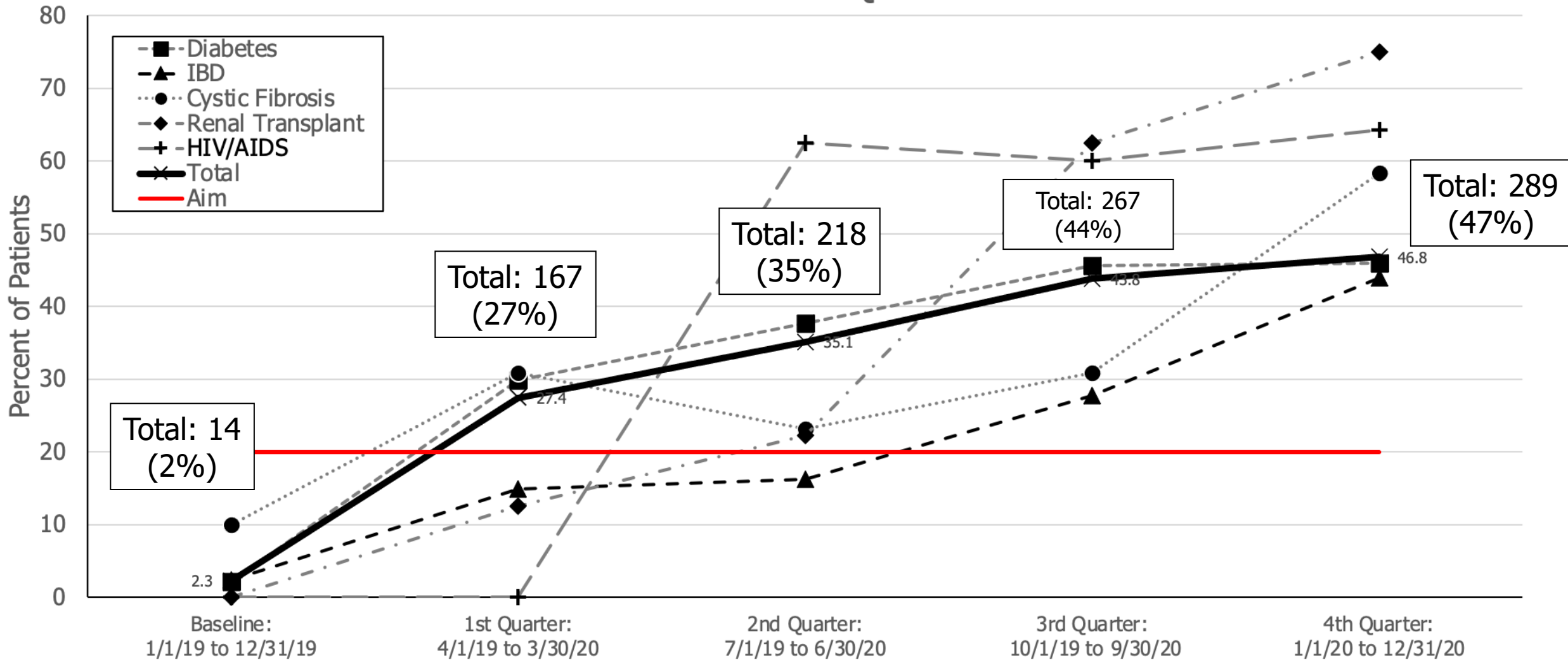
Outcomes – PHQ-9

Percent of Patients Aged 12 to 21 Years with a Chronic Medical Condition seen at PSC in the Past Year with a PHQ-9 Documented in the EHR



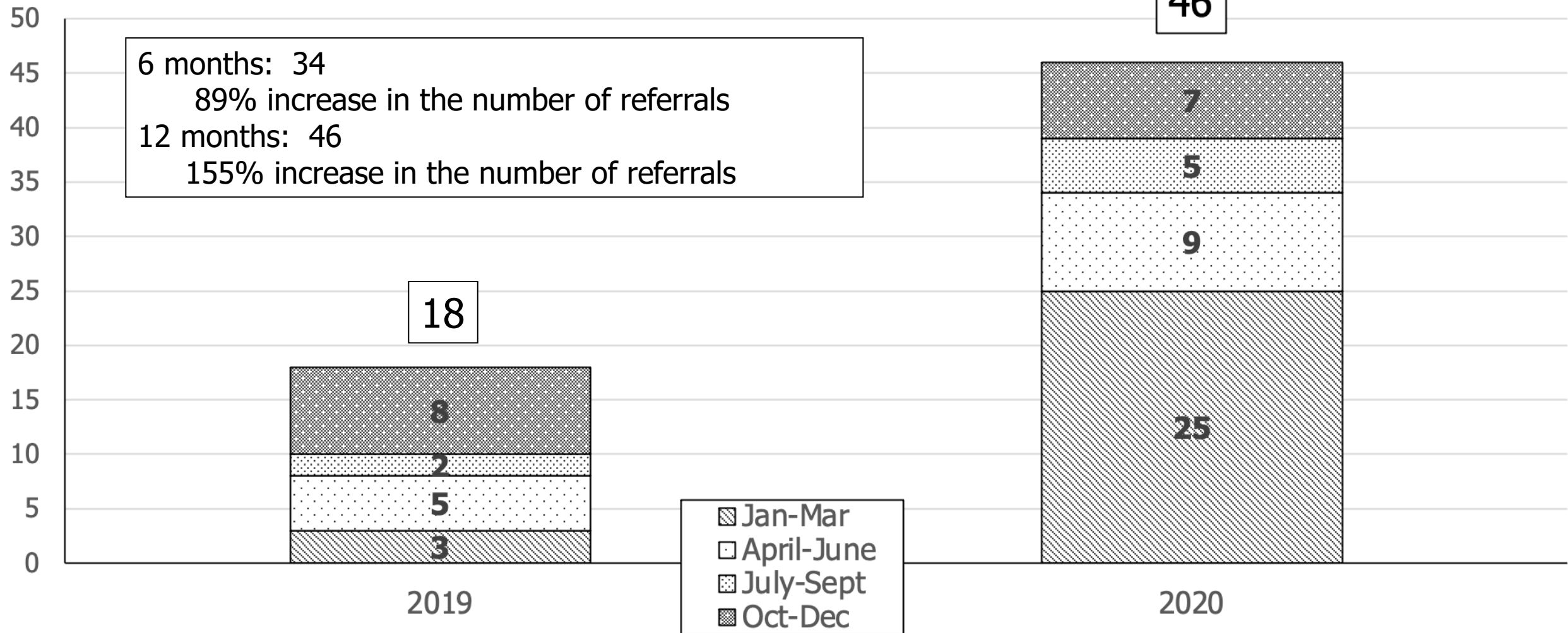
Outcomes – PHQ-9

Percent of Patients Aged 12 to 21 Years with a Chronic Medical Condition seen at PSC in the Past Year with a PHQ-9 Documented in the EHR



Outcomes – Referrals to LCSW

Number of New Patient Referrals to the LCSW at PSC per Quarter per Year



Lessons Learned



Challenges

Lessons Learned

Provider discomfort with the possibility of positive screening results

Need to provide education and reassurance that resources are in place to support the change.

COVID-19 - Delayed initiation of protocol and the use virtual visits

Flexibility and willingness to regroup and restart

A multi-step protocol utilizing multiple staff in the setting of competing priorities will lead to protocol deviations.

A clinic wide champion responsible for the multistep protocol may be more effective than just simplifying the protocol.

Delayed data analysis lead to delayed action.

Intermittent check-ins with stakeholders including re-introduction and re-education are important.

Sustainability

How do you maintain energy and momentum for a proposed change? All of the above...

Global aim: To improve the mental and physical health of adolescents with chronic medical conditions in Eastern North Carolina

PHQ-9 – 33% positivity rate, GAD-7 – 34% positivity rate

Focus on outcome measures for patients with positive screens

- Analysis of our referral process to mental health providers
- Impact on health outcomes with regards to markers of disease control and treatment adherence

Questions?

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