Care Model Redesign: Navigating Digital Transformation

Where Are You On the Risk-Taking Continuum?

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Mid-Atlantic Telehealth Resource Center

Telehealth Enabled Primary Care - Behavioral Health Integration Models

Integrating Telepsychiatry with Collaborative Care

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Conflict of Interest Disclosures

Krysti (Lan Chi) Vo, MD

I have the following commercial interest(s) to disclose:

- Hims & Hers Health, Inc
  - consultant
  - received consultant fees
- Twilio
  - recipient of Twilio Impact Fund development grant for software development
- Orchid.Exchange
  - advisor
  - received equity

Objectives & Agenda

- Describe how to apply telehealth clinical models to fulfill behavioral health needs in primary care
- Identify software solutions to fill gaps in current primary care's suicide risk assessment process
- Appraise how triaging can using digital health can improve outcomes
- Explain how the Children's Hospital of Philadelphia (CHOP) uses telepsychiatry in primary care
- Give an example of creative software usage to fill gaps in primary care suicide risk assessment at CHOP
- Give an example of how Vida health integrates physician and mental health

Academic Medical Center

- Children's Hospital of Philadelphia (CHOP) is the nation's first children's hospital (1855)
- Built on a foundation of:
  - Delivering safe, high-quality, family-centered care
  - Fostering medical discoveries and innovations
  - Advancing scientific research
  - Caring for our community
  - Committing to quality improvement

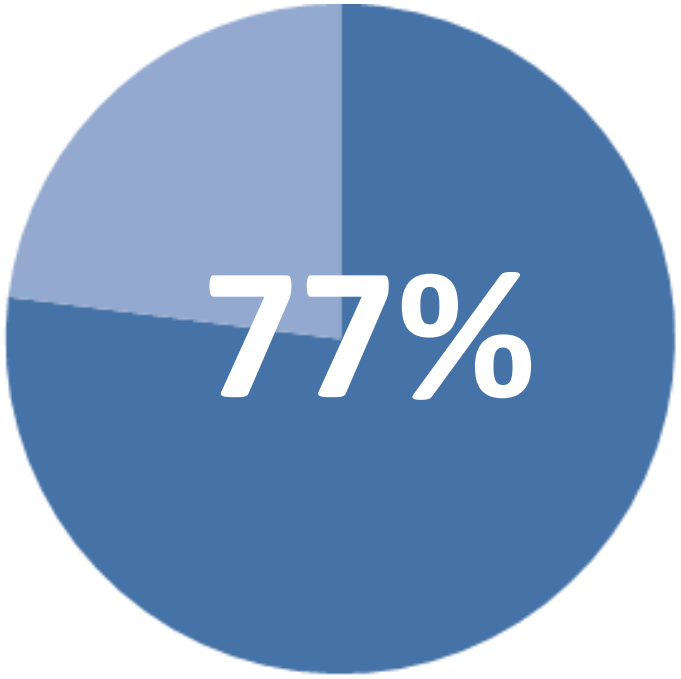
BEST CHILDREN'S HOSPITALS
U.S.News & WORLD REPORT
HONOR ROLL
2019-20

Vida Health

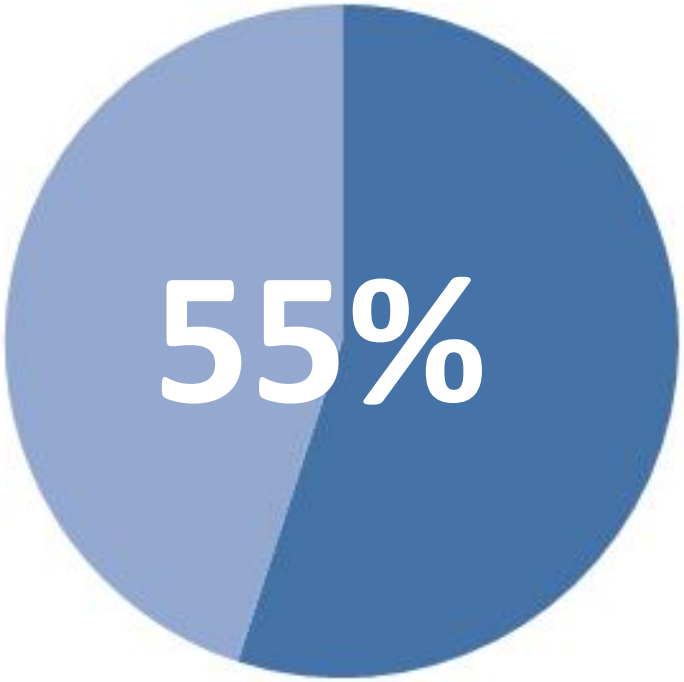
Vida Health is a virtual care platform intentionally designed to treat a person’s whole health by treating mental and physical conditions, together. Vida’s clinically validated approach combines an AI-powered, personalized experience with the support and human connection of coaches and therapists.

Mental Health Landscape

Mental Health Landscape

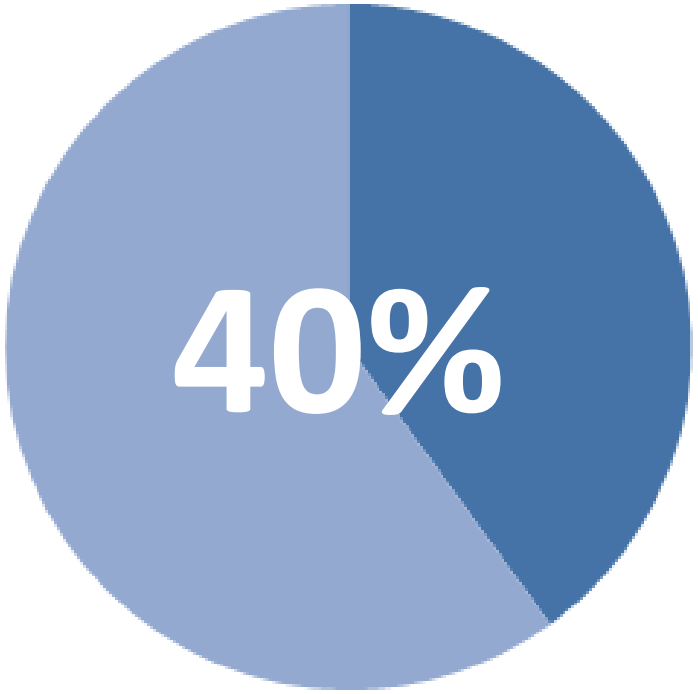


Counties in the US with a "severe shortage" of psychiatrists and other behavioral health providers[1]



Counties in the US that do not have psychiatrists[1]

Mental Health Landscape



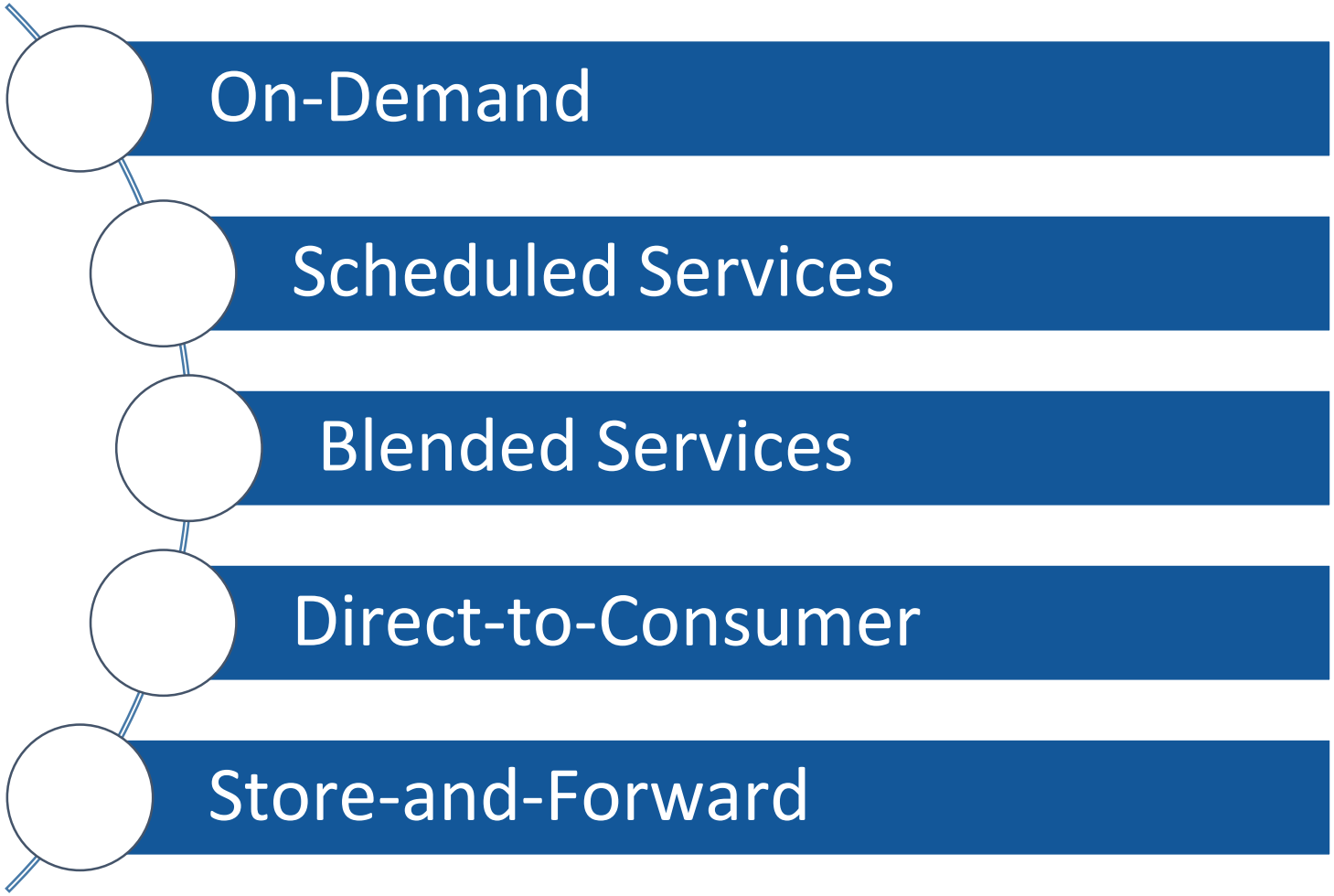
Americans who experience some form of mental illness that goes untreated[2]

Average wait time for an initial appointment is 7.5 weeks[3]

Models of Telehealth

and Telebehavioral Health

Models of Telehealth applies to Telebehavioral Health



Academic Medical Center

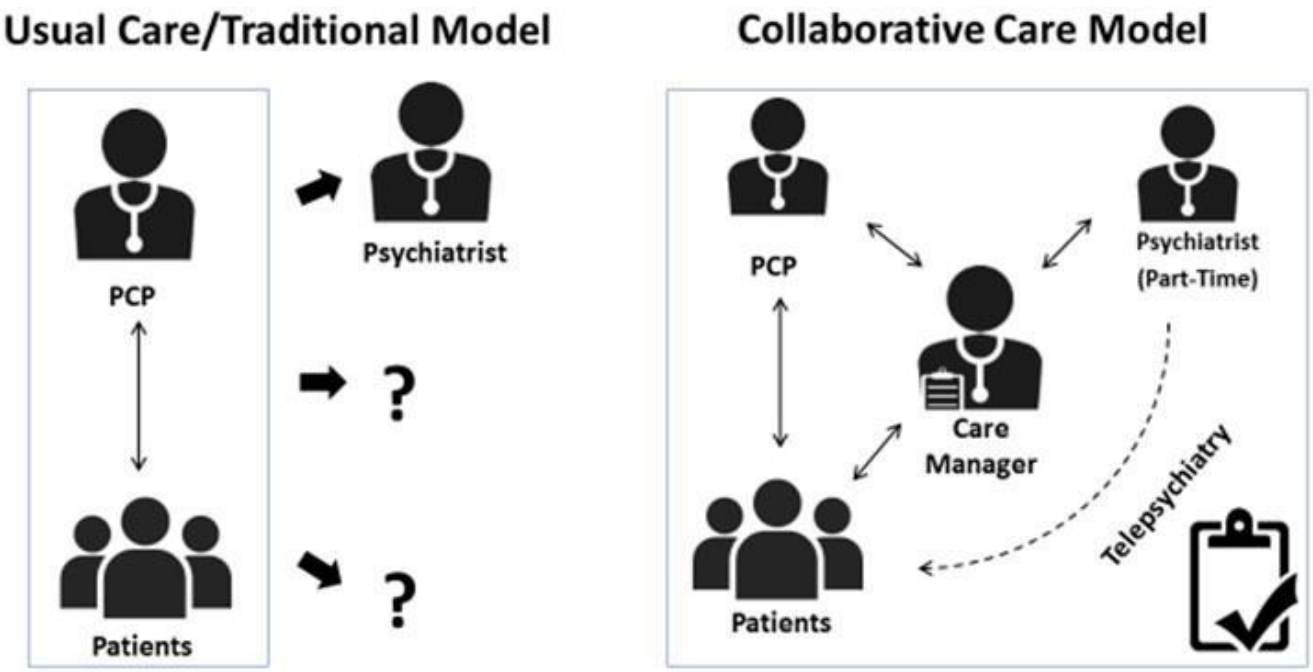
Strategy

- Internal mental health needs
- Leveraging internal resources to meet mental health needs
- Partnering with the community for external mental health needs
  - Increases footprint
  - Branding and marketing

Academic Medical Center

- Meeting the mental health needs of the medical center
  - Primary Care Networks
  - Emergency Psychiatry
  - Post-hospitalization discharge behavioral interventions

Collaborative Care Model

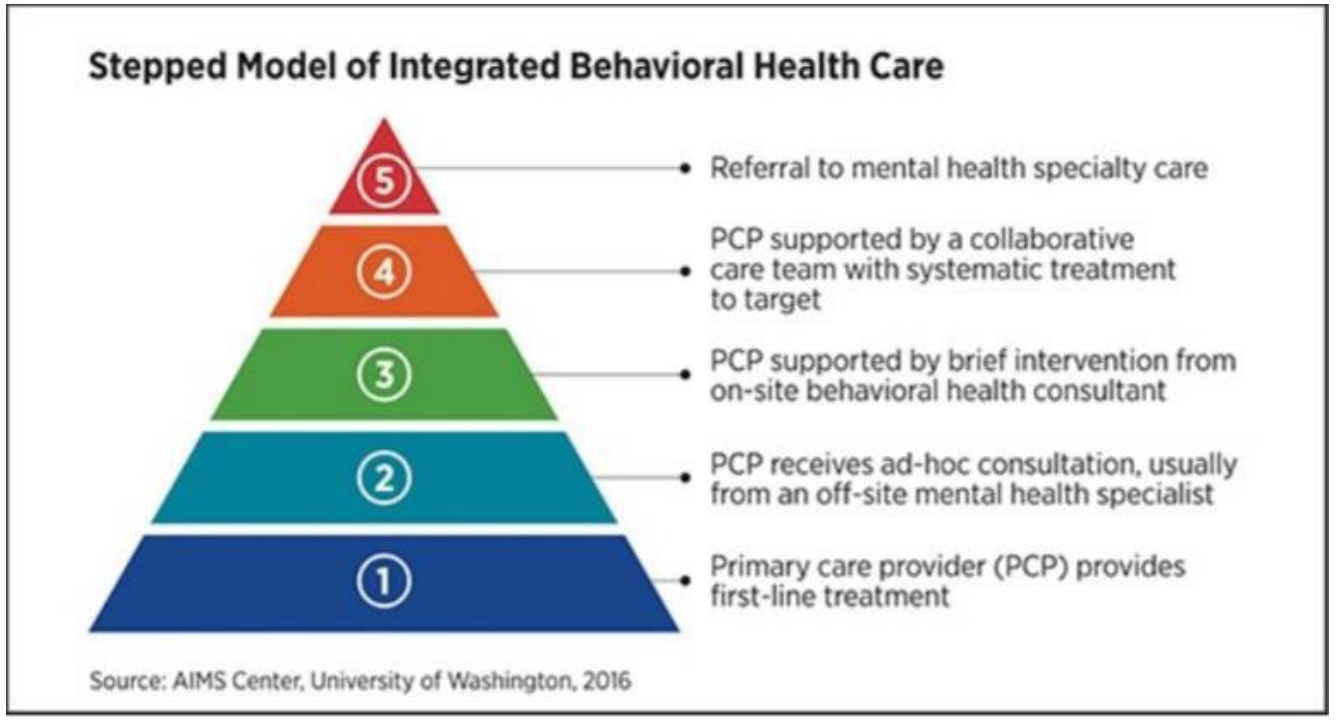


Telepsychiatry in the Collaborative Care Models

- Aim: increase access to behavioral health & upskill pediatricians and mid-level behavioral clinician
- Access is a problem even in urban areas
- Decrease stigma with going to pediatricians' office
- Decrease cost & distance/logistical barriers

Telepsychiatry in the Collaborative Care Models

Leveraging our resources (PCPs, LCSWs, PHDs)



Telepsychiatry in the Collaborative Care Model

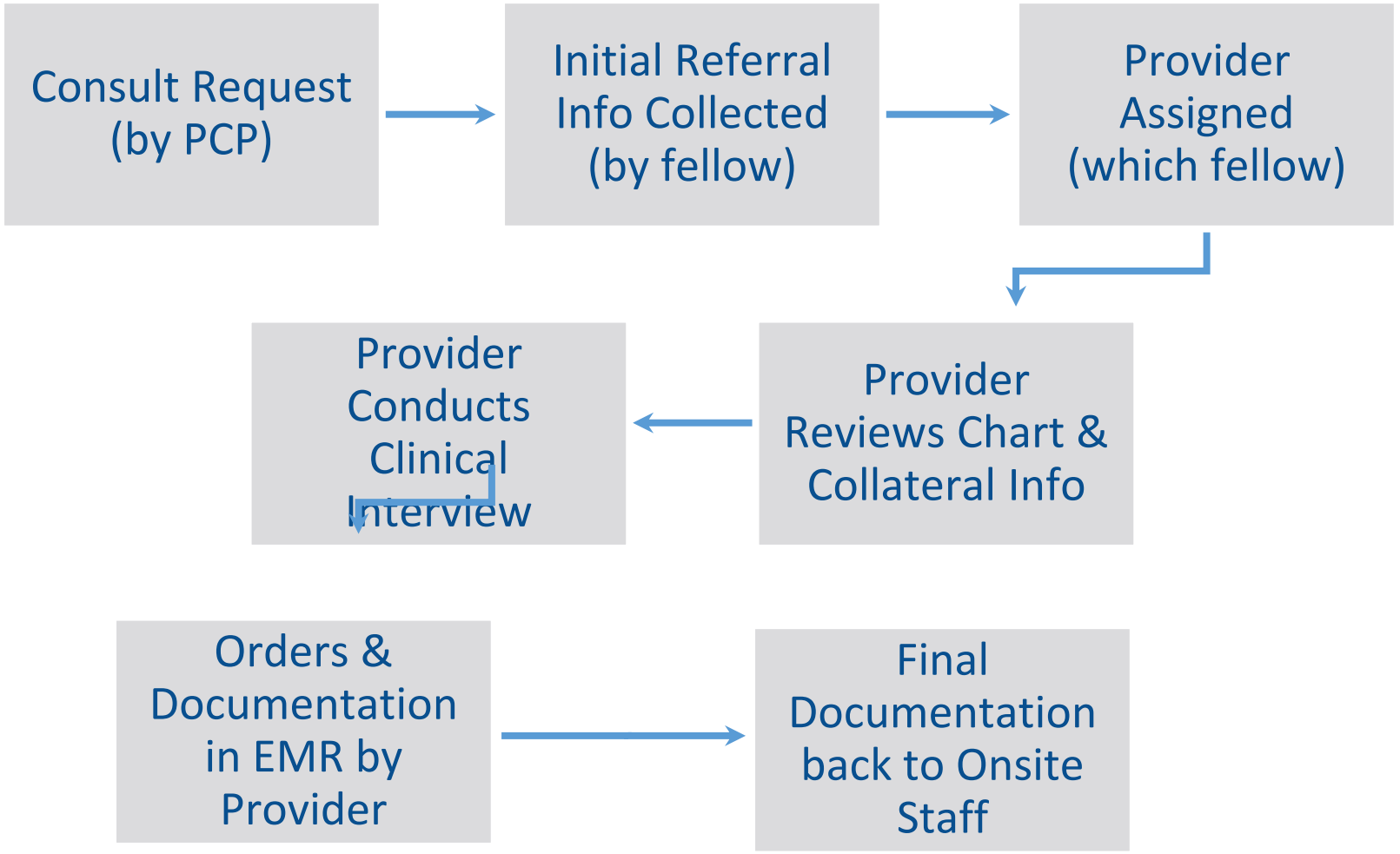
- Provider to Provider consult vs direct to patient
  - Telepsychiatrist + PCP + Patient/Family
  - Telepsychiatrist + Patient/Family

The study's Collaborative Care team is made up of the patient, a primary care provider, a therapist, and a care manager. The care manager communicates with a psychiatrist who makes recommendations about treatment. *Credit: NIH HEAL Initiative*

Telepsychiatry in the Collaborative Care Model

- Synchronous versus asynchronous
  - with the PCP
  - with the psychiatrist
- eConsult
- On Demand versus scheduled
- Built a model that works for your entity and fulfill your needs!

Design Clinical Workflows



Operational Considerations for Telepsychiatry in Collaborative Care Model

- Clinical Models
  - Mix Model (in-person visits + video visits)
  - Video visit only
- Personnel
  - Who is in the visit room with patient? Who assists?
    - Children may requires guardian
  - Who could be the telepresenter?
    - Needed to take vital, set up room for patient, connect to telepsychiatrist

Operational Considerations for Telepsychiatry in Collaborative Care Model

- Active partnership with each site is key!
- Consenting
- Alternative connection method
  - Keep in mind rural areas may have connection limitation
- Emergency management
- Dual scheduling complexity
  - On community clinic’s schedule + telepsychiatrist schedule

Importance of PCPs

in Improving Adolescent Suicide Prevention

Enhancing role of PCPs is key in closing access & awareness gaps in suicide prevention

PCPs are widely available and accessible by children but have low rates of suicide screening relative to other mental health channels

- There are 486K PCP in comparison to 102K psychologist and 46K psychiatrist
- PCP only screen suicide 36% of the time

PCPs predicted to be effective in suicide screening as large share of children already seek mental health care with PCPs

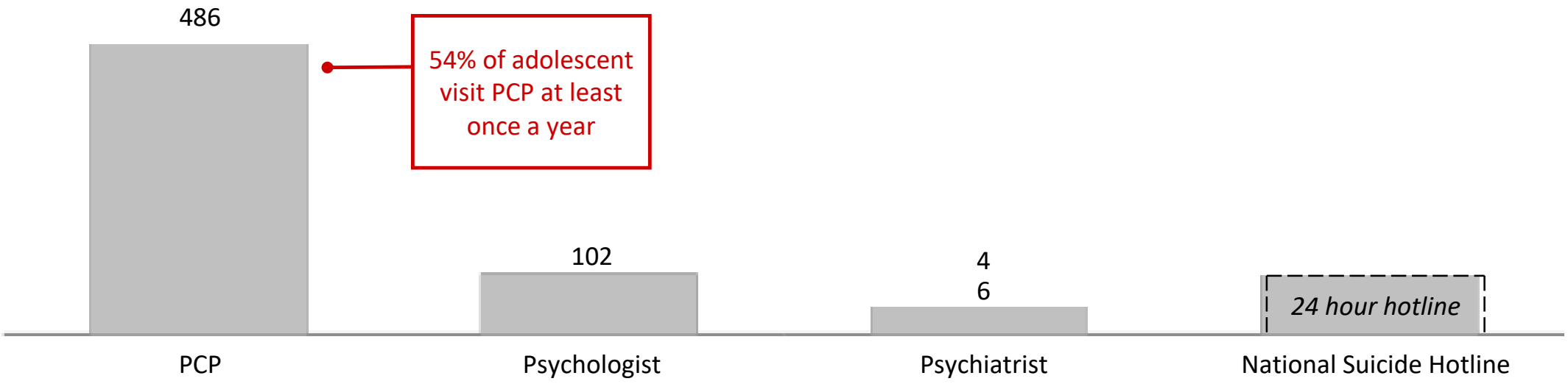
- 47% of children seek mental health care with PCP
- 50% of behavioral health issues are treated by primary care
- 70% of antidepressant RXs are written by PCPs

Requiring PCPs to conduct suicide risk assessments for adolescents would require **minimal financial effort**

- Screening tool consist of six short questions

Enabling PCPs will improve access to suicide screening as PCPs are widely available but only screen suicide 36% of the time

of U.S. Primary Care Practitioners (in thousands)



	PCP	Psychologist	Psychiatrist	National Suicide Hotline
# of Annual Visits (Million)	480	180	30	2
Currently Screen for Suicide Risk	36 %	40 - 60%	100%	100%

Note: Visits and practitioners are total numbers, including adults; PCP numbers reflect all licensed PCP (i.e., not only pediatricians); Psychologist visits estimated using APA data on time spent in direct client care and assumption of 30-minute patient visit.
Source: CDC; Kaiser Family Foundation (KFF); Association of American Medical Colleges (AAMC); American Psychological Association; Lines for Life; Hooper et al. Predictors of primary care physicians' self-reported intention to conduct suicide risk assessments. J Behav Health Serv Res. 2012;39(2):103-11; Rand CM, Goldstein NPN. Patterns of Primary Care Physician Visits for US Adolescents in 2014: Implications for Vaccination. Acad Pediatr. 2018;18(2S):S72-S78; American Psychological Association (APA) Center for Workforce Studies

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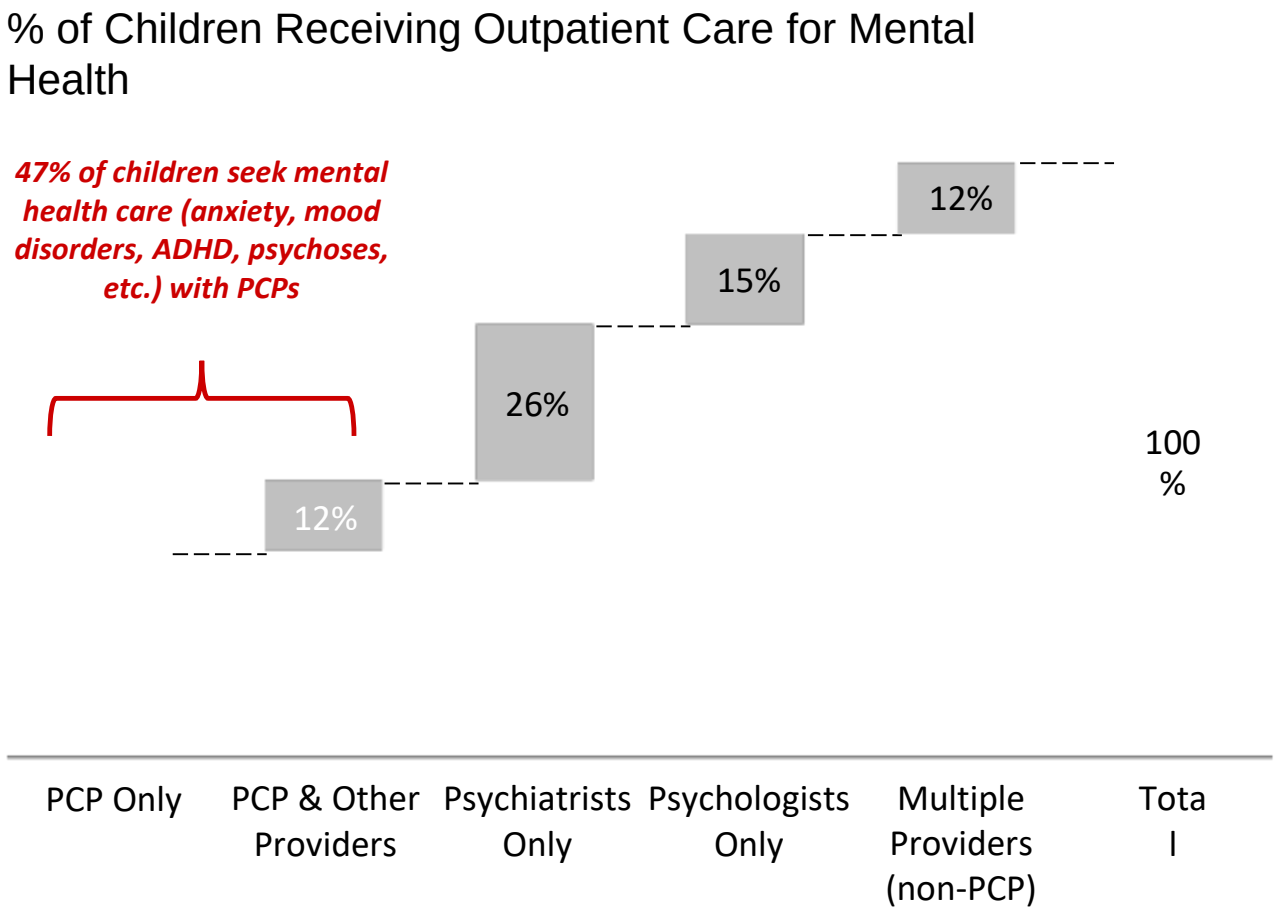

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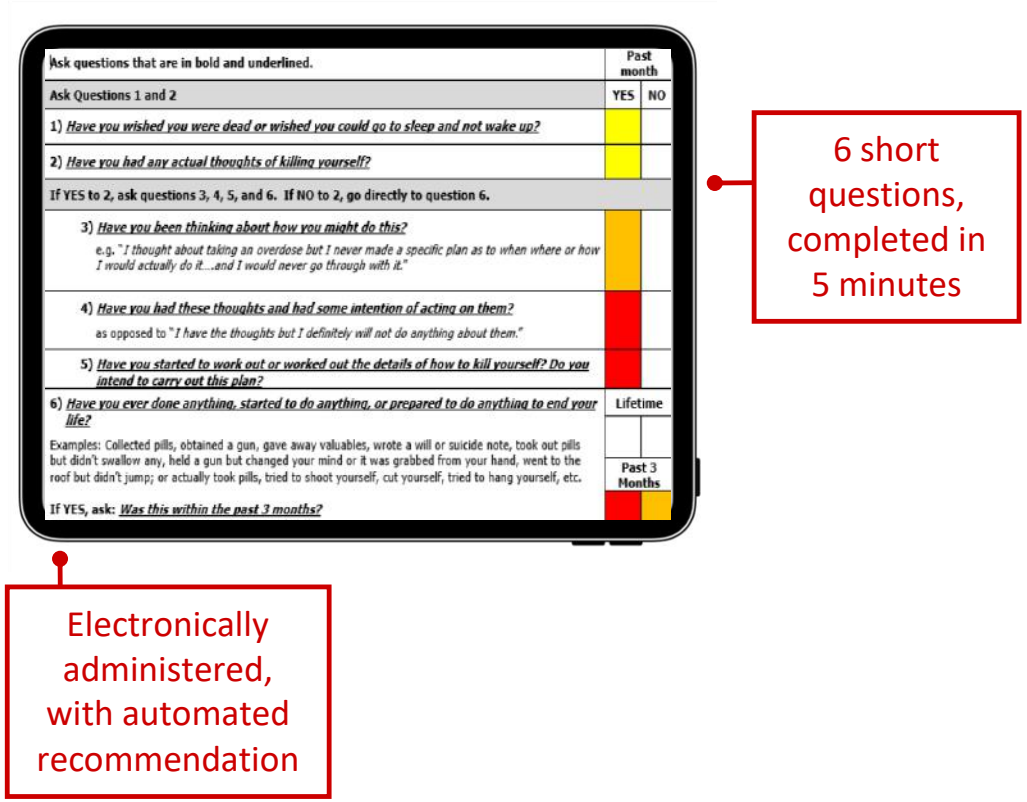
Enable PCPs to accurately screen adolescent suicide risk

Providing PCPs a simple but effective questionnaire (C-SSRS) improves suicide screening with minimal effort



6 short questions, completed in 5 minutes

Electronically administered, with automated recommendation

Columbia-Suicide Severity Rating Scale (C-SSRS) has been proven effective by multiple studies

Psychometric Property	# of studies
Clinical Utility	21
Reliability (internal consistency)	4
Reliability (inter-rater; multi-method agreement)	6
Internal Structure (Factor Analysis)	2
Convergent Validity & Accuracy	7
Divergent & Discriminant Validity	3
Cross-Cultural Validation	4

Gaps in Current Primary Care

Suicide Risk Assessment Process

Screening Issues: lack of screening enforcement and standardized tool

Issues	Cause
Large number of undiagnosed tients (64% on average)	Lack of Key Performance Indicator (KPI) & process that enforces PCP to diagnose all patients for suicide risk
Large risk of undetected suicide as robust tool (C-SSRS) not sed	Lack of standardized diagnosis approach, leads to varying level of accuracy across PCPs
Risk of referring patients to ong treatment, as PCPs lack sychiatric knowledge	Lack of patient tiering during diagnosis prevents PCPs from referring patients to treatments based on risk

Retention Issues: coordinator capacity constraint and gaps in follow up processes

Issues

Cause

Only 30 – 40% of patients seek p and schedule appointments

→ Manual & complex scheduling process discourages patients from booking appointments

Only 57% of scheduled pointments are realized

→ Capacity Constraint

- Lack of tiering leads to large patient volume, limiting social workers' capacity to follow-up/intervene
- Manual follow up limits capacity for patient follow up

59% of patient seeking care do t complete treatment

→ Gaps in Follow Up Process

- Lack of end-to-end tracking to monitor patient progress
- No standardized triggers and intervention measures to prevent drop-offs for PCPs/social workers
- Lack of guidance & Key Performance Indicator (KPI) related to follow up & resolution of patients' issues

Wait Time Issues: lack of automation, tiering, and load balancing

Issues	Cause
Up to 10 days required to ntify therapist for patients	Manual search of available therapist (call and web search) take up to 10 days
7 – 10 weeks wait time to first pointment	Lack of need-based-tiering leads to high volume and long appointment queue
Additional 7 – 10 weeks wait e to reschedule appointments	No centralized & automated load balancing across therapist

Creative Software Solution

What: Link2Care gives access to on-demand telebehavioral consultation in primary care to reduce ER visits and inpatient hospitalizations.

How: Link2Care triages suicide risk severity and connects patients to the appropriate level of care.

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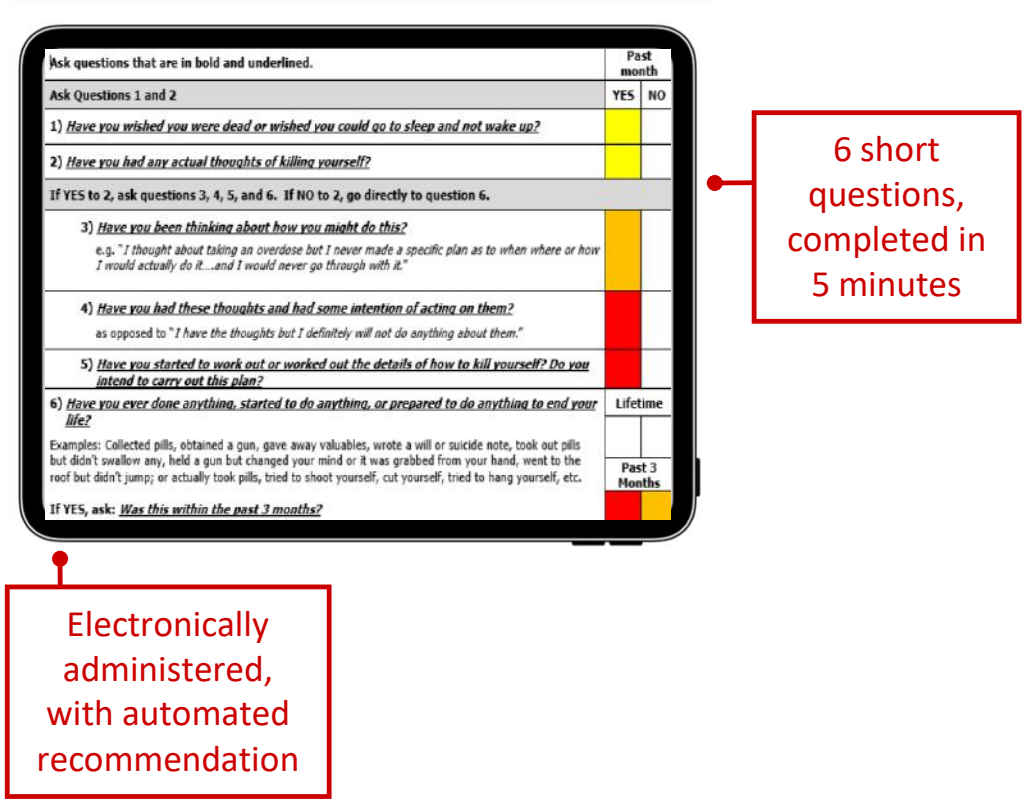

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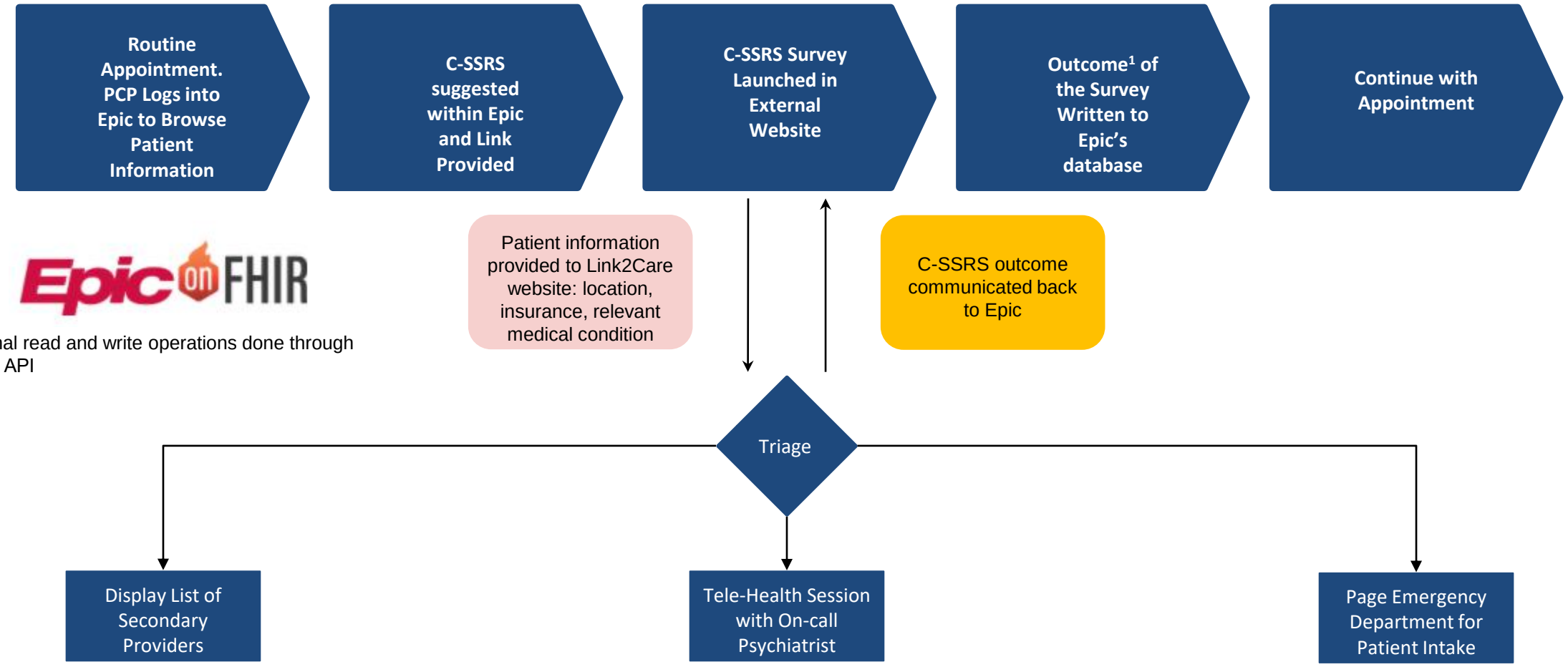
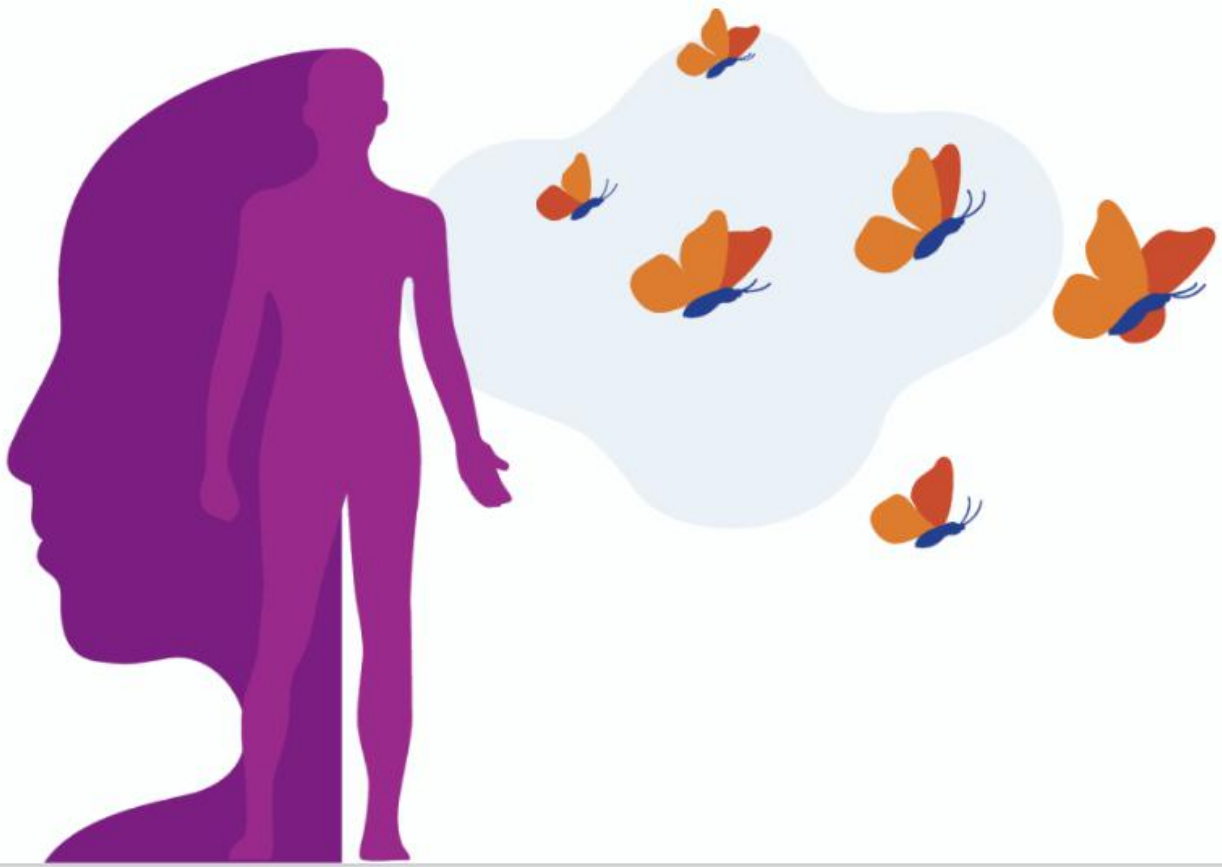
Link2Care Integration with Existing CHOP PCP Workflow



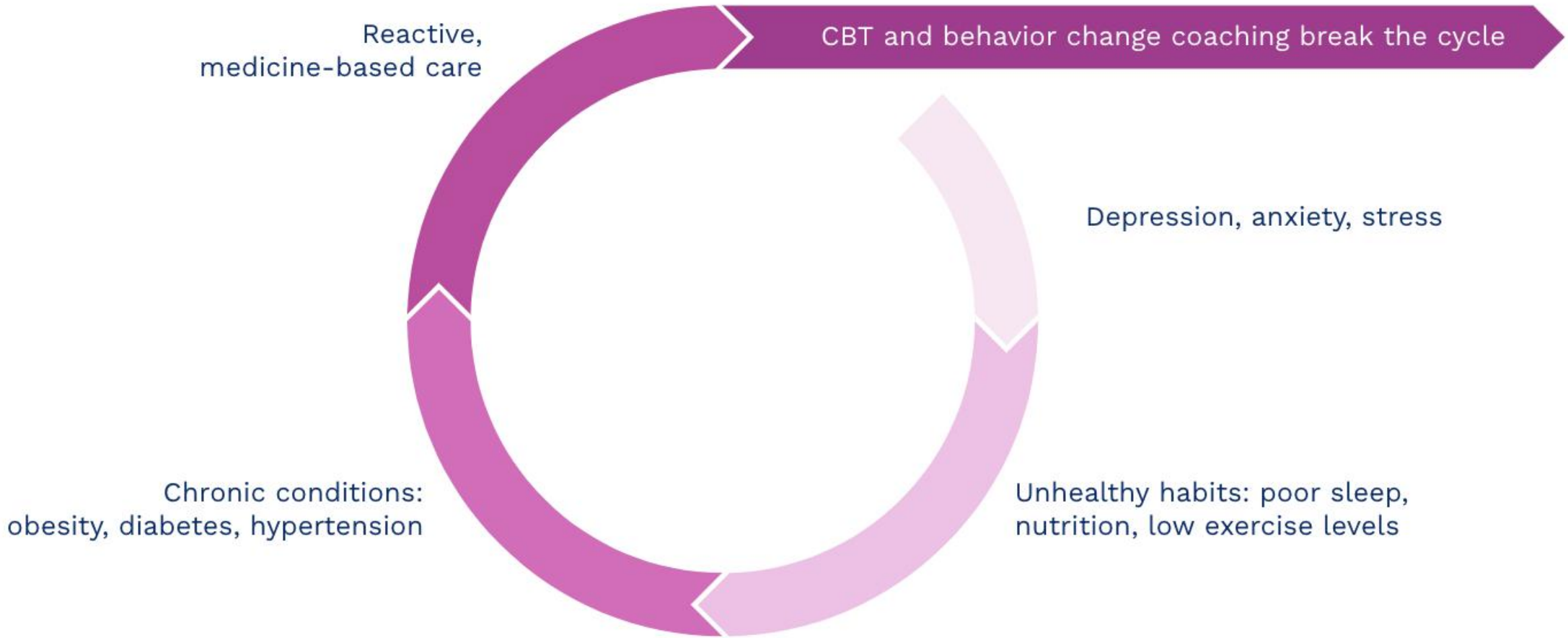
Bridging Physical and Mental Health

Vida Health

Mental and physical conditions never stand alone



Untreated stress, depression and anxiety worsen chronic physical conditions



Vida's comprehensive chronic care management solution always connects physical and mental health

Physical Health

Mental Health

Weight Loss/Nutrition/Exercise

Preventive Care

Mental Health Coaching

Subclinical + Mild Depression and Anxiety

Cardiometabolic and Cardiovascular Conditions

Chronic Care Pathways

Mental Health Therapy

Moderate + Moderately Severe Depression and Anxiety

Medication management + Social determinants of health

Integrated Care

Complex Case Management

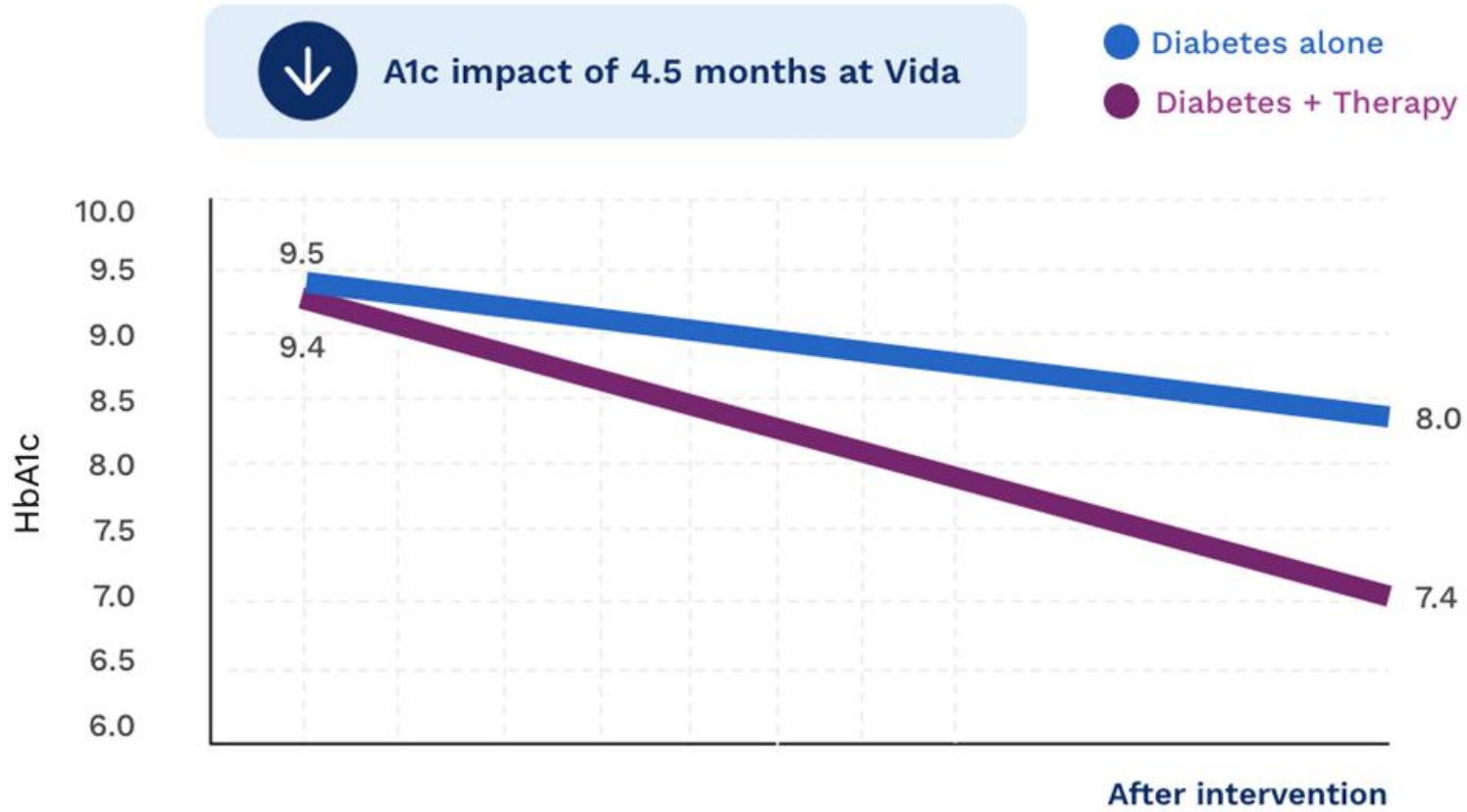
Severe Mental Illness

Integrated and hyper-personalized cardiometabolic care paths based on acuity

	Overweight	Prediabetes	Diabetes + Co-Occurring Chronic Conditions	
Severity Markers	**BMI 25+**	**5.6–6.4% A1C**	**6.5–7.5% A1C, Metformin**	**>7.5% A1C, Hypertension Oral Meds, Insulin**
Digital Therapeutic Program	●	●	●	●
Scale	●	●	●	●
Glucometer & Strips or CGM			●	●
Health Coach	●	●	●	
Registered Dietitian	●	●	●	●
Remote Monitoring			●	●
Medical Nutrition Therapy	●	●	●	●
Pharmacist connects to PCP			●	●
Integrated Mental Health	●	●	●	●

● Included
● Available based on need

Members see a 33% greater A1c improvement treating diabetes and mental health together



Diabetes alone

▼1.5

A1c points (4.5 months)

Diabetes + Therapy

▼2.0

A1c points (4.5 months)

Source: A1c Whitepaper Major Health Plan 2020

Vida is confident in our ability to deliver the best outcomes
we put 100% fees at risk

Diabetes + Mental Health

▼2pt A1C

▼79% PHQ/GAD Score

Reductions when treating diabetes and depression/anxiety together (month 4)

Weight Loss

≥7%

Weight Loss in multiple cohorts (month 12)

Hypertension

76%

of those with stage 1 hypertension improved by ≥ stage (month 4)

Hospitalizations

▼15%

reduction in IP admissions (vs. matched control group, at month 6+)

Vida BoB outcomes, 2021

Discussion

What Questions Do You Have?

Stay Connected! ☺

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