

# The Real-World Impact of Integrated Medical-Behavioral Healthcare

Presented In Partnership With:



# Today's Presenters



**Dr. Joe Parks**  
Medical Director



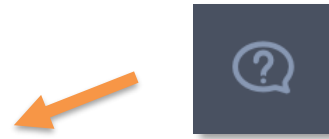
**Dr. Julia Hoffman, Psy.D.**  
VP of Behavioral Health Strategy



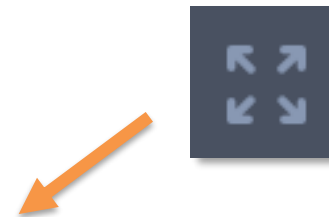
**Dr. Manuel Castro**  
Medical Director of Behavioral  
Health Integration



# Today's Presentation



Click the question icon to ask questions for today's presenters



View in full screen mode and hit the escape button on your keyboard to return to normal view

There are no continuing education credits or certificates for this event

# Objectives

- An overview of the current state of integrated medical-behavioral healthcare including industry trends and dynamics
- How an integrated approach helps more effectively address physical health once the pervasive impact of behavioral health conditions are addressed
- A case study from Atrium Health on how they've incorporated digital behavioral health tools within their diabetes care management program and primary care practices
- Digital, whole-person innovations for individuals struggling with chronic physical and/or behavioral conditions



# Dr. Joe Parks



Medical Director



- Distinguished Research Professor of Science at the University of Missouri – St. Louis
- Clinical Assistant Professor of Psychiatry at the University of Missouri, Department of Psychiatry in Columbia
- Practices outpatient psychiatry at the Family Health Center, a federally funded community health center
- Nearly 20 years of experience in public health, including former positions as:
  - Director of Missouri HealthNet Division of the Missouri Department of Social Services
  - Medical Director of the Missouri Department of Mental Health, as well as the Director for the Division of Comprehensive Psychiatric Services
  - President of the Medical Director's Council of the National Association of State Mental Health Program Directors
  - Director of the Missouri Institute of Mental Health at the University of Missouri – St. Louis



# Integrated Healthcare

## World Health Organization definition:

*“The organization and management of health services so that people get the care they need, when they need it, in ways that are user-friendly, achieve the desired results and provide value for money.”*



# Integrated Funding Vs. Integrated Care



## **Integration is a range of specific clinical work behaviors**

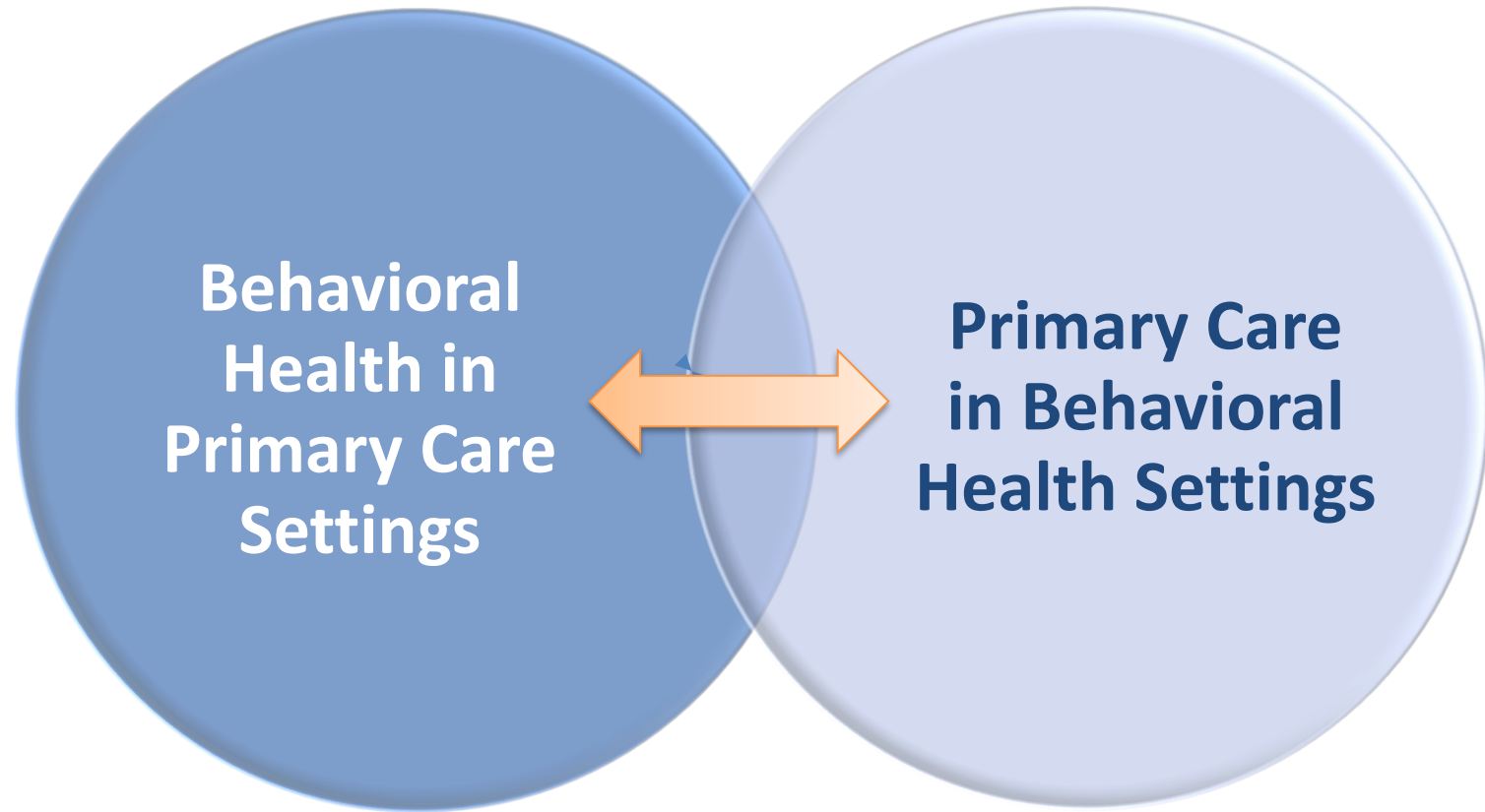
- Single point of accountability for overall care coordination and management
- Single treatment plan
- Treatment team that is both medically and behavioral health competent

## **Integrated funding can be helpful, but is neither necessary nor sufficient**

- Separate funding can be effectively blended
- Integrated funding all too frequently ends up funding separate care



# Bidirectional Integration

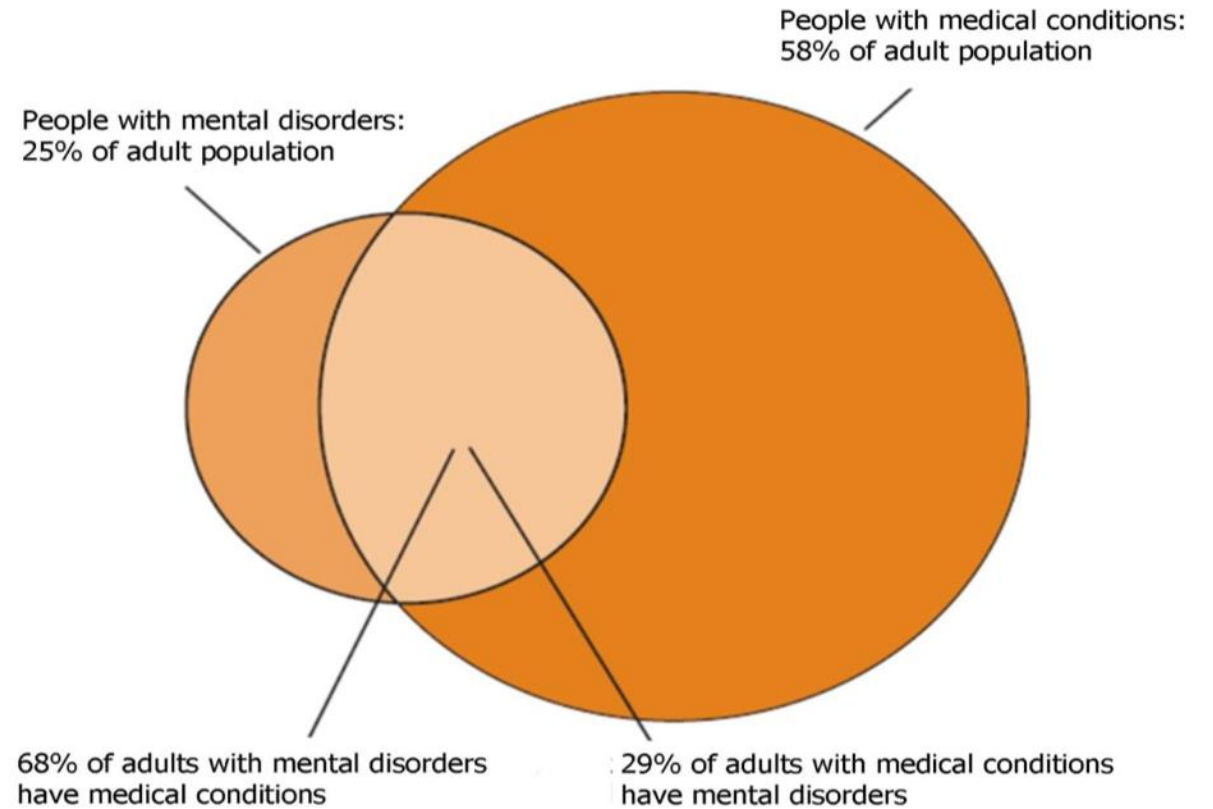




# Why Integrate Physical and Behavioral Healthcare?



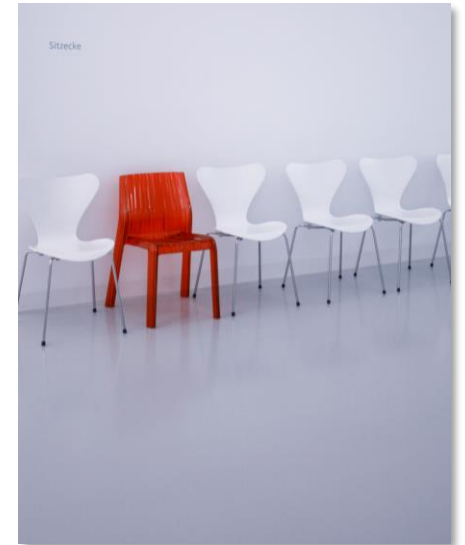
# Co-Morbidity of Mental Disorders and Other Chronic Conditions



*Source: Adapted from the National Comorbidity Survey Replication, 2001-2003 (3, 83)*

# Why Do People Seek Behavioral Health Care in Primary Care Settings?

- Mild to moderate behavioral health problems are common in primary care settings
  - Anxiety, depression, and substance use in adults
  - Anxiety, ADHD, and behavioral health problems in children
  - Prevention and early intervention opportunity
- Uninsured or underinsured
- Limited access to public health mental health services
- Cultural beliefs and attitudes
- Low availability of mental health services, especially in rural areas



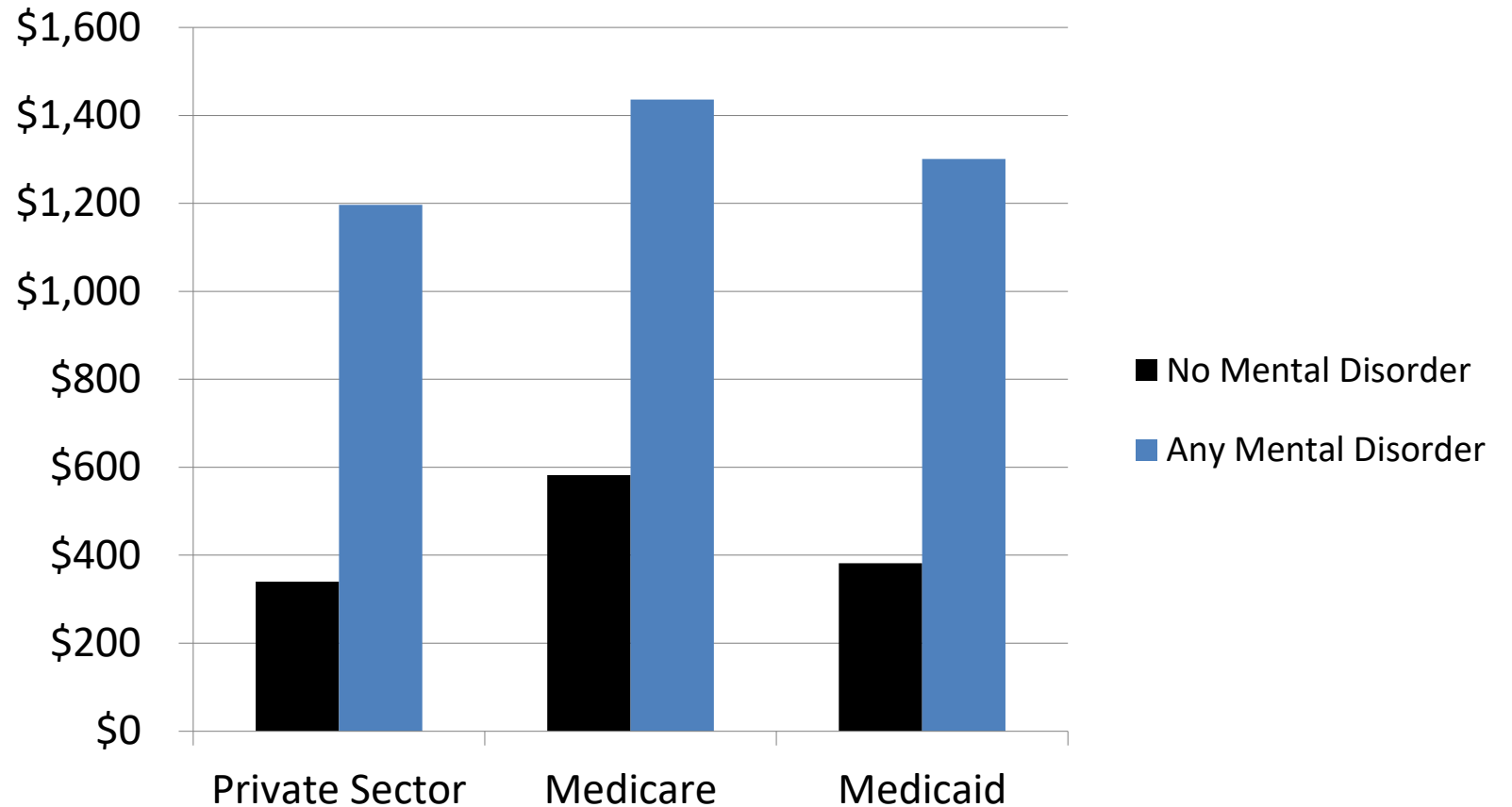
# Why Primary Care Services in Mental Health?



- High rates of physical illness with mental illness
- Premature mortality
- People with mental illness receive a lower quality of care in primary care settings
- High cost of physical illness with mental illness
- Access problems



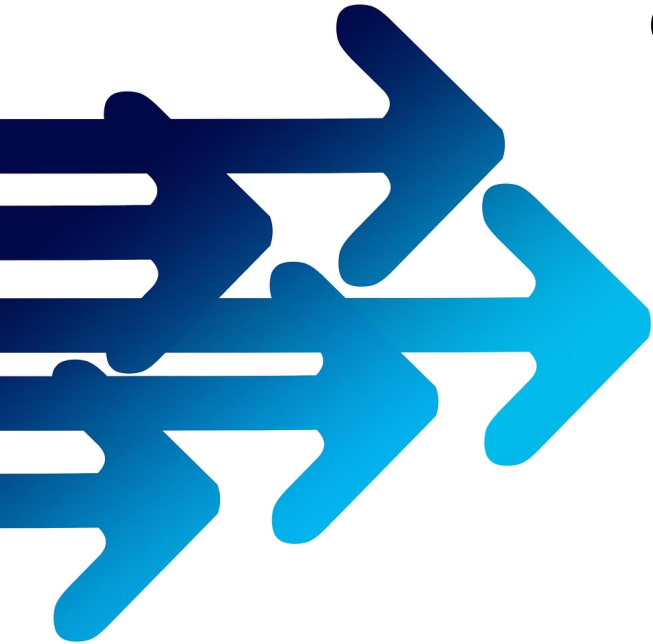
# Per Member Per Month (PMPM) Costs



# Key Opportunity

**Integrating care offers an important opportunity to reduce disparities and improve outcomes:**

- Eliminate the early mortality gap
- Reach people who cannot or will not access specialty behavioral health care
- Intervene before issues develop or worsen
- Improve adherence to treatment recommendations



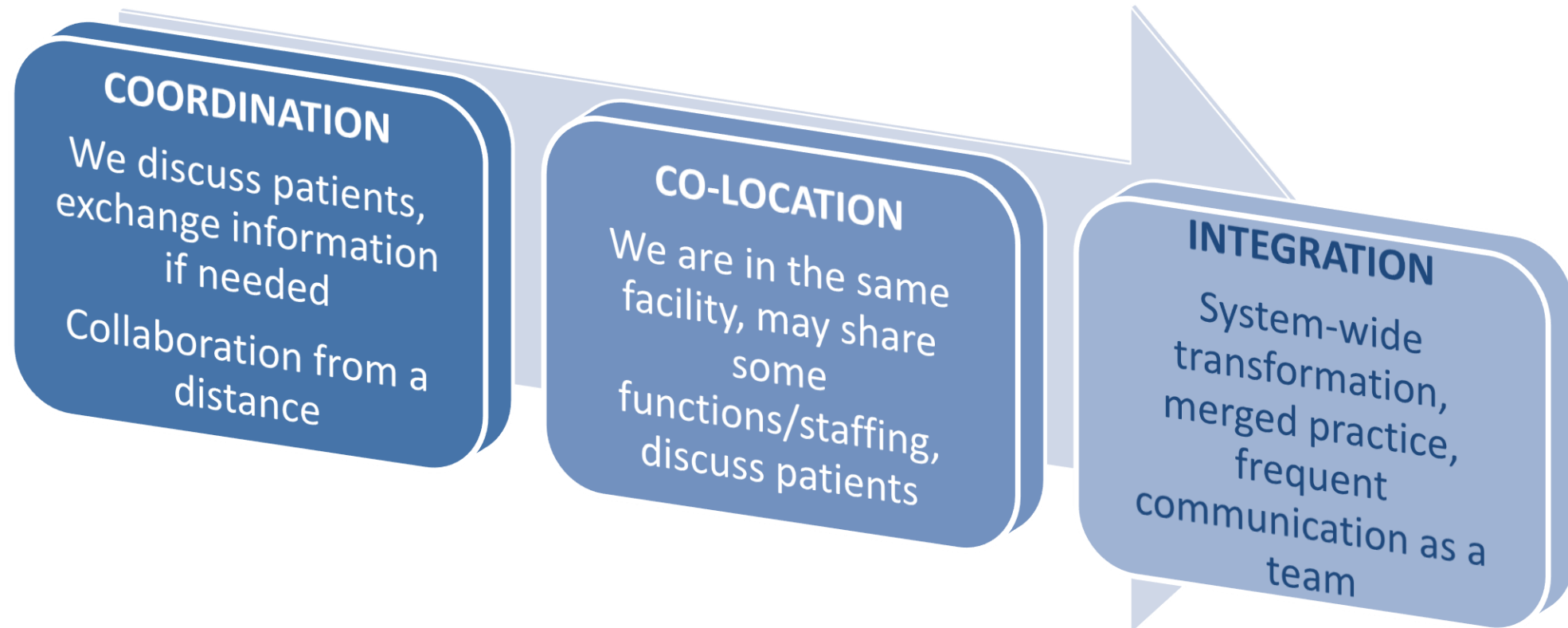
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# Standard Framework of Integration





# How is Integrated Care Being Done in the Field?

- Data-driven care
- Population management
- Integration of behavioral health and general health care
- Telehealth
- Digital healthcare
- Bundled payments





# ...From Encounters... to Ongoing Management

## Fee-For Service

Pre-Encounter

X

Encounter

\$\$\$\$\$

Post-Encounter

X

Disengaged

X

## Population Management

Pre-Encounter

\$

Encounter

\$\$

Post-Encounter

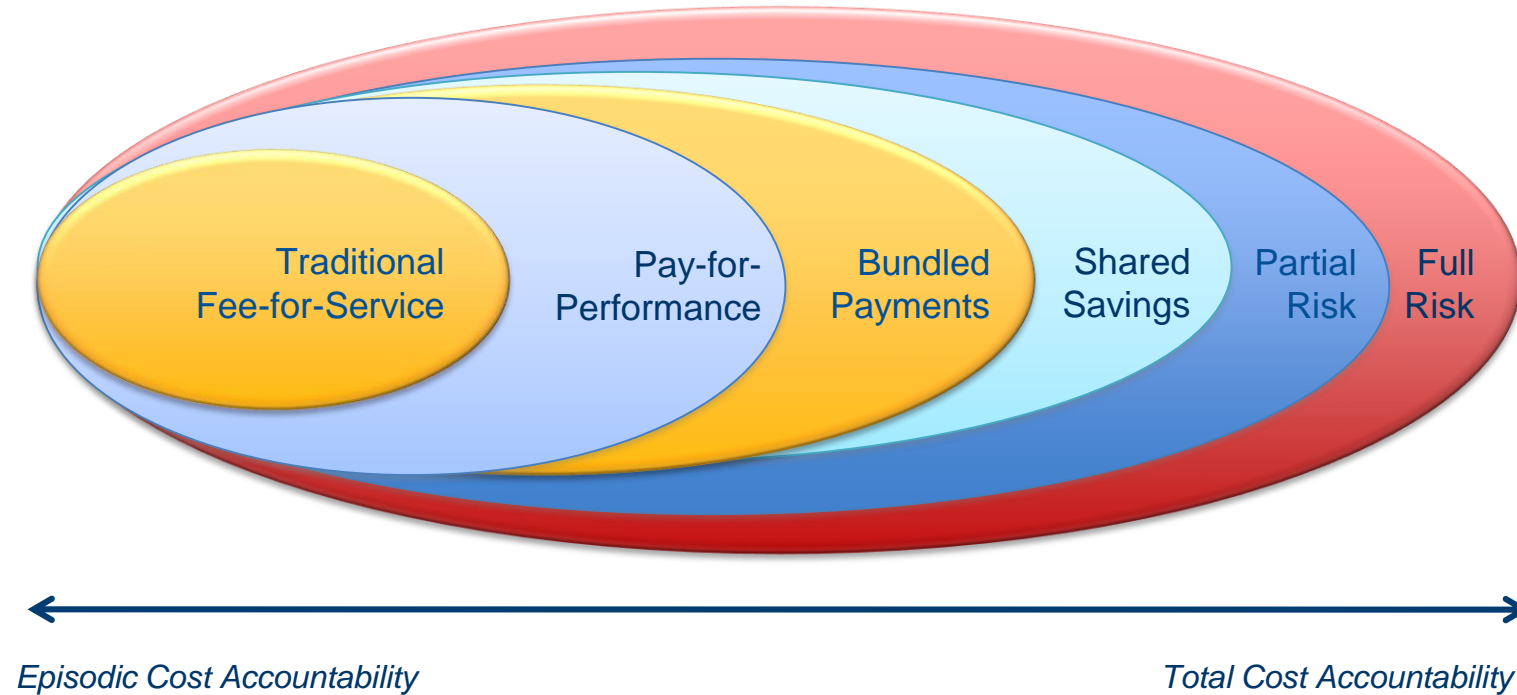
\$

Disengaged

\$



# Types of Bundled Payment

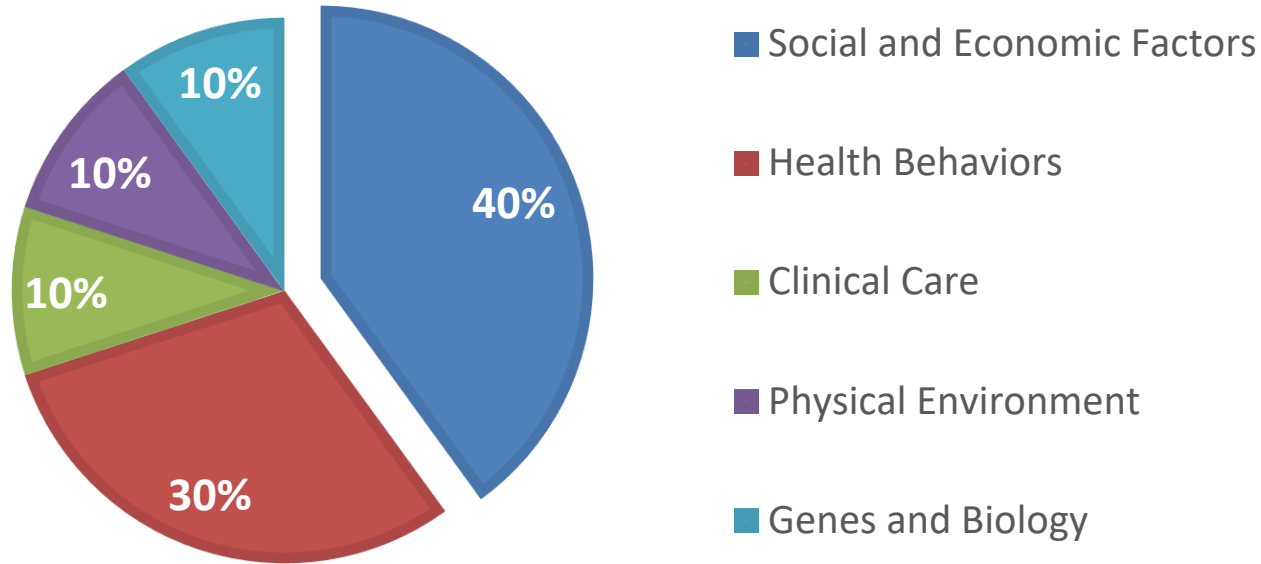


# Vision for the Future



# Consider What Creates Health

## Determinants of Health



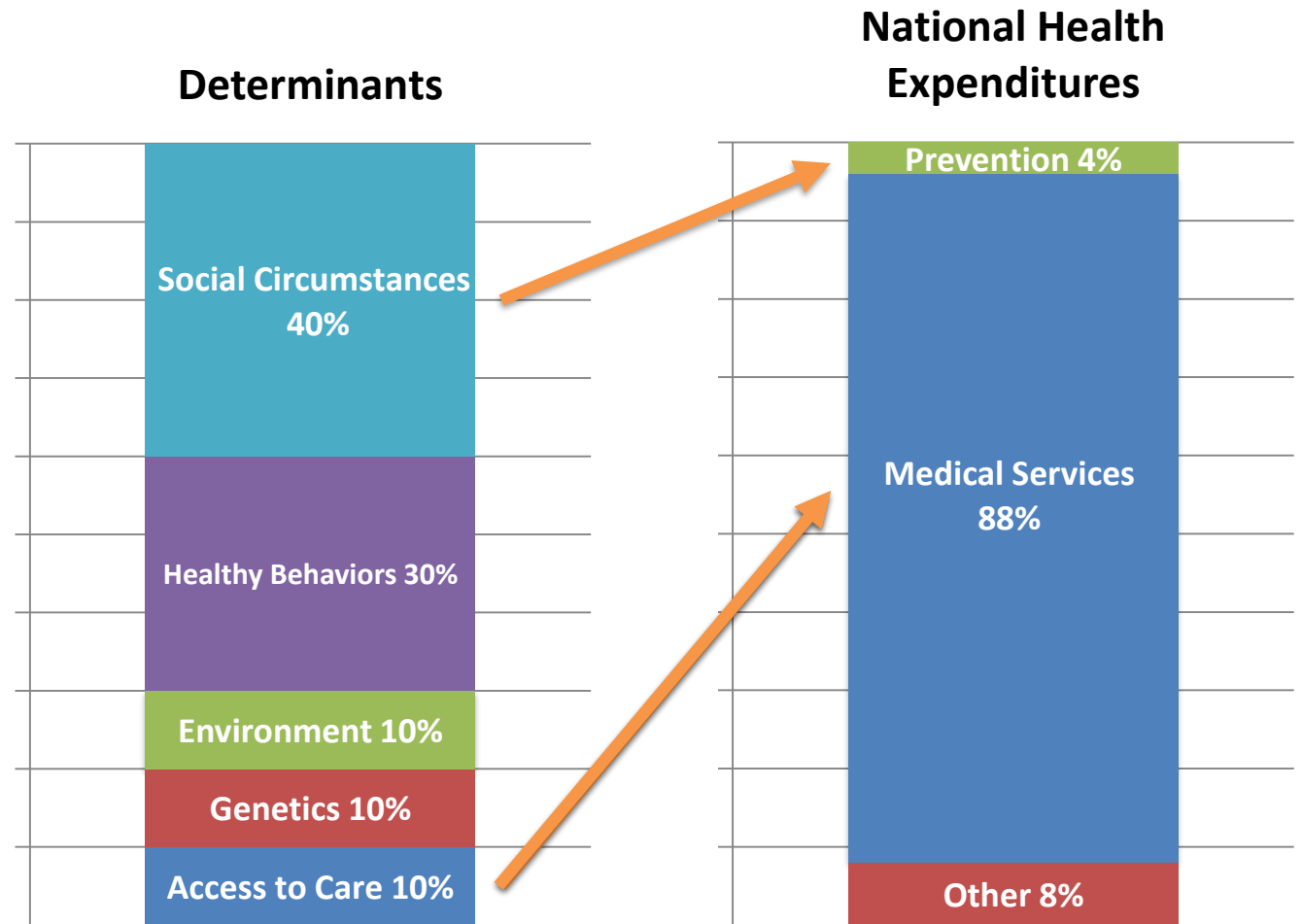
## Necessary Conditions for Health (WHO)

- Peace
- Shelter
- Education
- Food
- Income
- Stable ecosystem
- Sustainable resources
- **Mobility**
- Social justice and equality

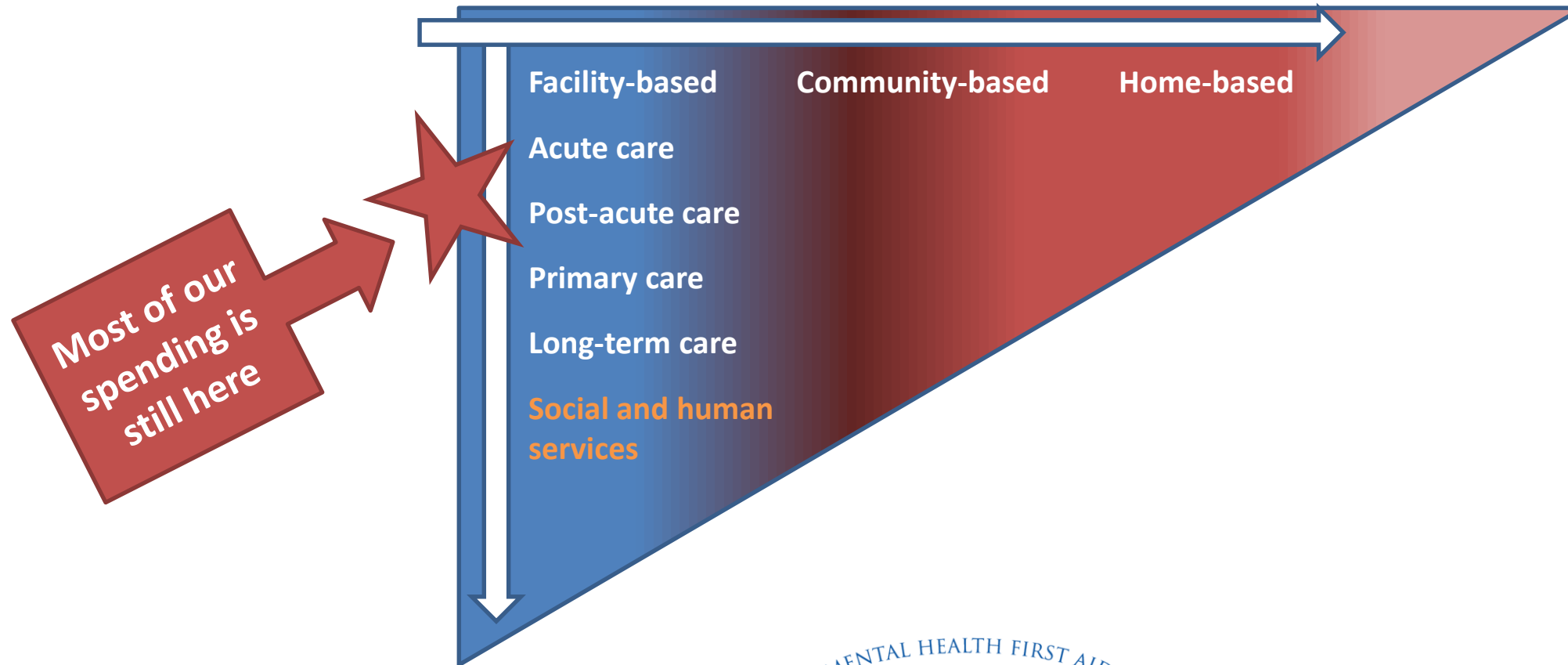
Determinants of Health Model based on frameworks developed by: Tarlov AR. *Ann N Y Acad Sci* 1999; 896: 281-93; and Kindig D, Asada Y, Booske B. *JAMA* 2008; 299(17): 2081-2083.  
World Health Organization. Ottawa charter for health promotion. International Conference on Health Promotion: The Move Towards a New Public Health, November 17-21, 1986 Ottawa, Ontario, Canada, 1986. Accessed July 12, 2002 at <<http://www.who.int/hpr/archive/docs/ottawa.html>>.



# Spending Mismatch: Health Care and Other Key Determinants of Health



# Payers and Health Plans Looking to “Care Coordination” and “Integration to Reduce Costs by Shifting the Service Model



# Use of Technology on the Rise for Integration

## Driven by:

- Technology explosion
- Rurality / diversity of populations
- Supporting people who have difficulty with face-to-face interactions
- Workforce shortages
- Millennial generation influences
- Healthcare reimbursement reform

## Strong Evidence:

- Telepsychiatry
- Online cognitive behavioral therapy (CBT) for depression management

## Emerging Evidence / Promising Innovations:

- Chat bots
- Online treatment for substance use disorders (SUDs)
- Virtual assistants / tech enablement (Google, Apple)
- Care coordination platforms





# Dr. Julia Hoffman, Psy.D.



VP of Behavioral  
Health Strategy

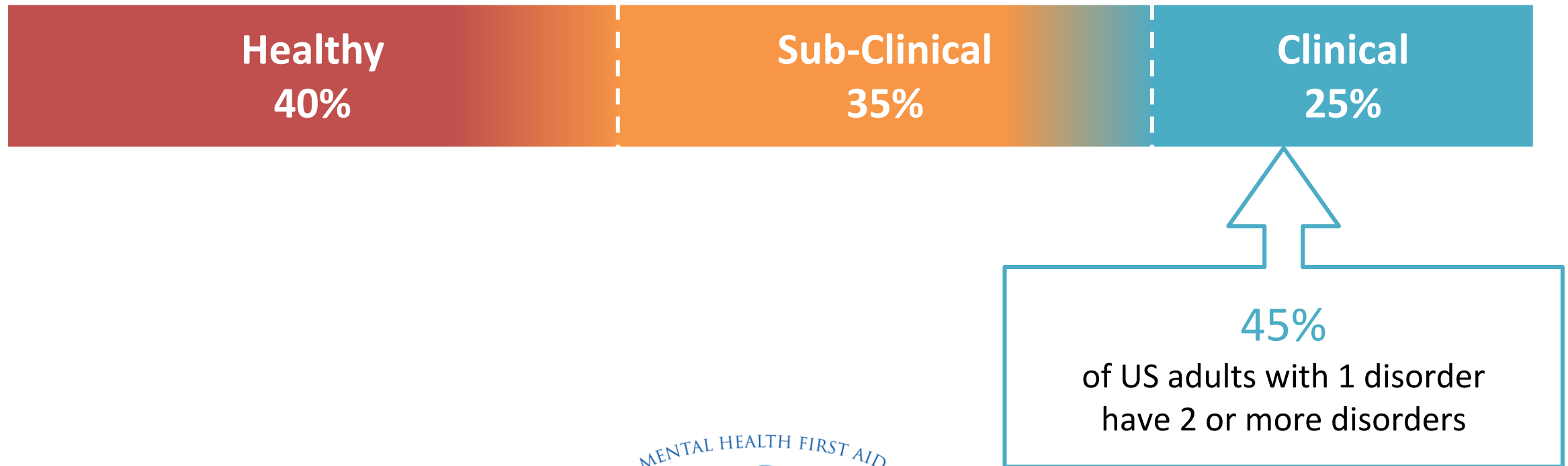


- Leads Behavioral Health strategy at Livongo, a company empowering people with chronic conditions to live better and healthier lives
- Former National Director of Mobile Health for Mental Health and Suicide Prevention at the U.S. Department of Veterans Affairs, the largest integrated healthcare system in the country
- Has led the creation, evaluation, and broad international dissemination of more than 40 technology-based behavioral health tools
- Served as a consultant and advisor to many behavioral health companies
- Licensed clinical psychologist
- Completed a Psy.D. in Clinical Psychology at the PGSP-Stanford Psy.D. Consortium and a fellowship at Yale University School of Medicine





# Behavioral Health Needs in the US: Significant, Episodic, Underrecognized



56M

# Behavioral Health Needs in the US: 60% Untreated

RECOGNIZE

ACCESS

INITIATE

TREAT

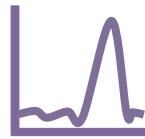
13M



Stigma



Recognition



Episodic



Shortages



Cost



Inconvenience



Quality



Low Utilization



Complexity



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# Digital BH Presents an Opportunity to Fill Key Gaps in Care Today

Digital programs can be as effective as face-to-face therapy.

>200  
published  
RCTs

>20  
meta-analyses



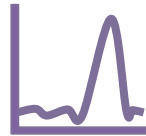
## Stigma

Anonymous, private use



## Recognition

Driven by data science



## Episodic

Flexible, prevention-intervention



## Cost

Economical



## Inconvenience

24/7/365 access from any location



## Shortages

Adjunct / optimizes provider involvement



## Quality

Aligned with gold standards & rigorously tested



## Low Utilization

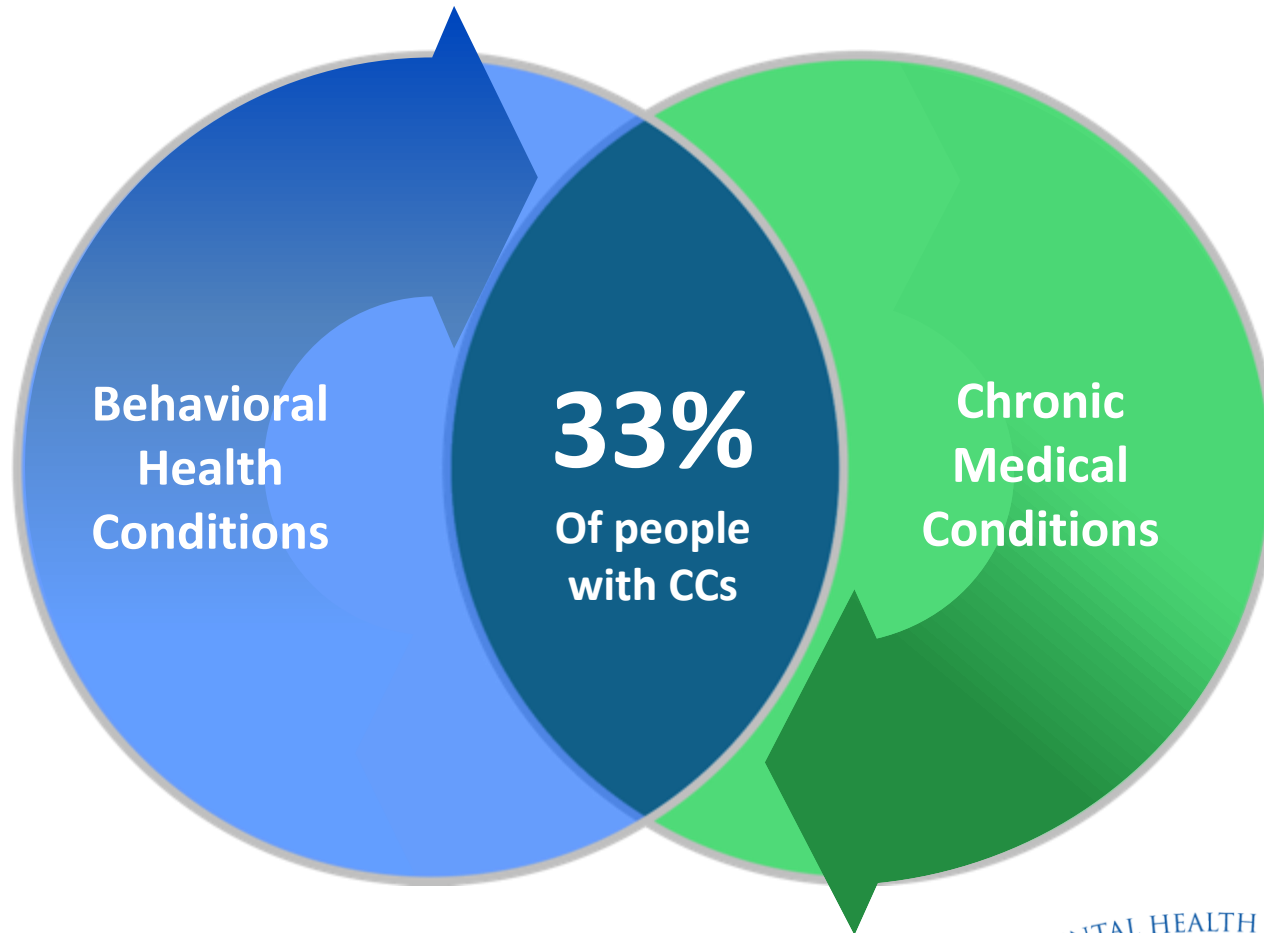
Easy entrance point



## Complexity

Highly personalized experience

# Chronic Medical Conditions and Behavioral Health



**147M+**

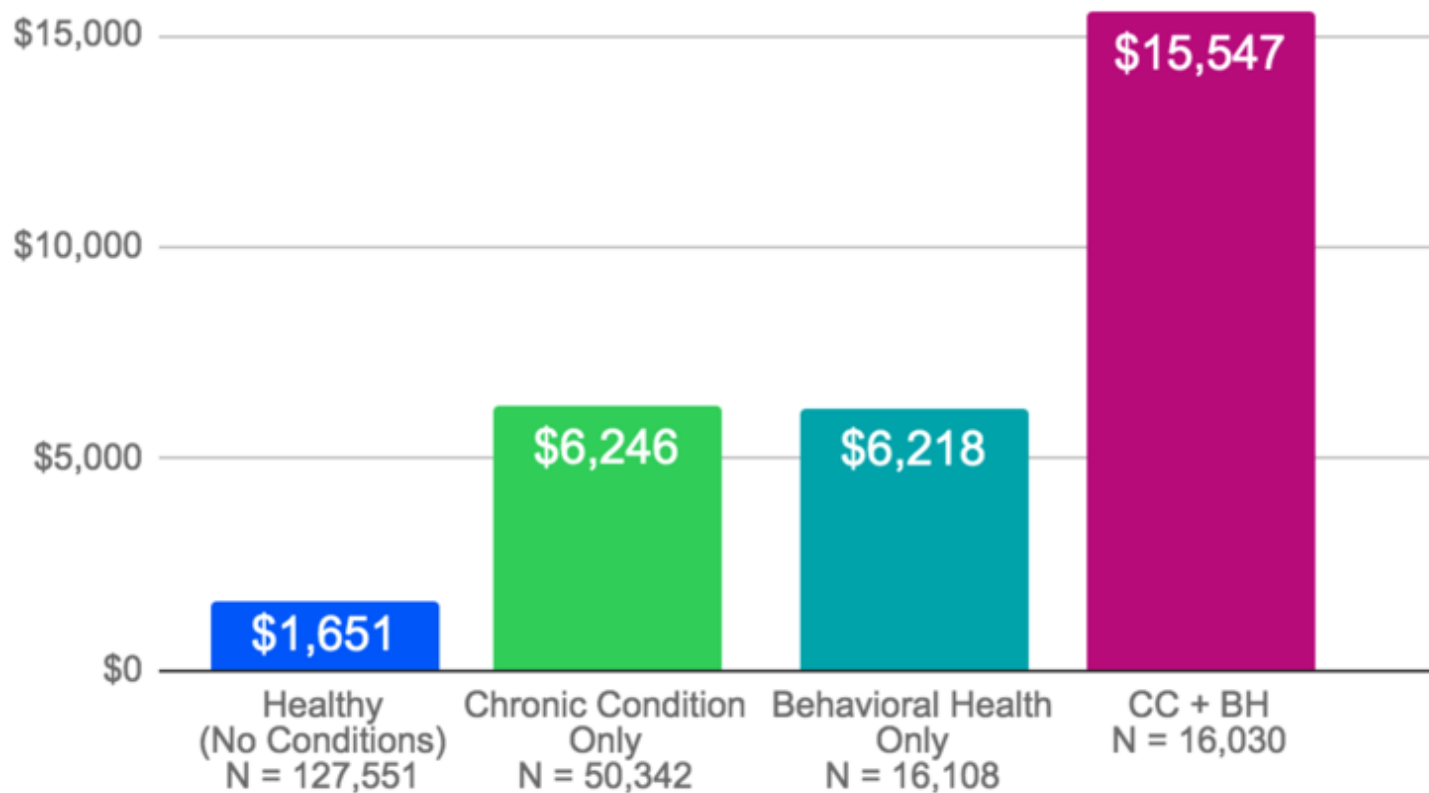
American adults have one or more chronic conditions



**90%**

Annual US healthcare spend covers individuals with these conditions

1+1=3



9.4x

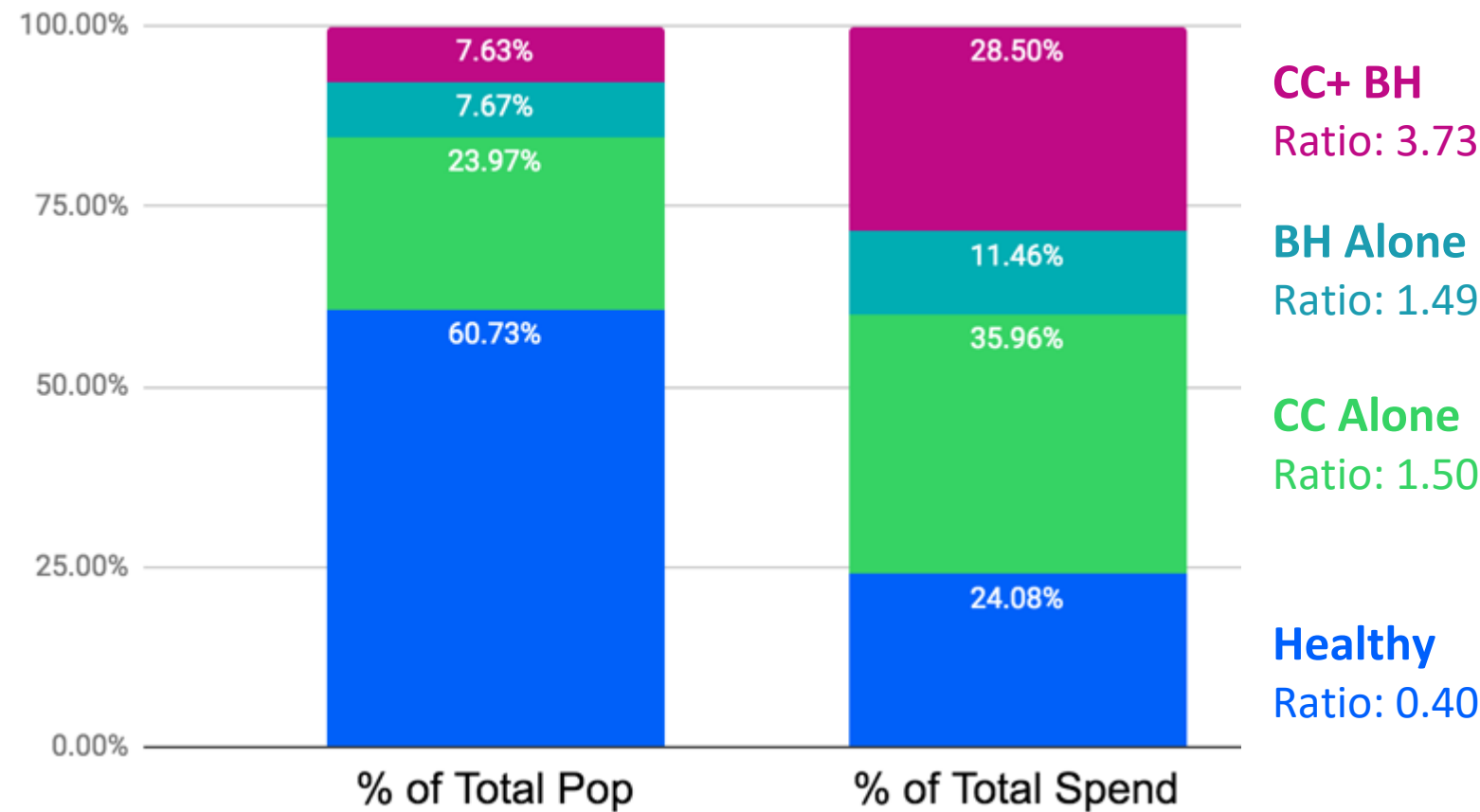
Annual average cost of people with co-occurring chronic conditions and BH compared to those with no conditions.

2.5x

Annual average cost of people with co-occurring chronic conditions and BH compared to either alone.



# Costs are Disproportionate to Population Size



**3.73**

Ratio of percentage of spend to percentage of population for co-occurring chronic conditions and behavioral health

# What's Driving the Costs?

**\$14,000**

Average Annual  
Spend Difference

Outpatient  
Hospitalizations

**15x**

Inpatient  
Hospitalizations

**12x**

Emergency  
Department

**6x**

Office  
Visits

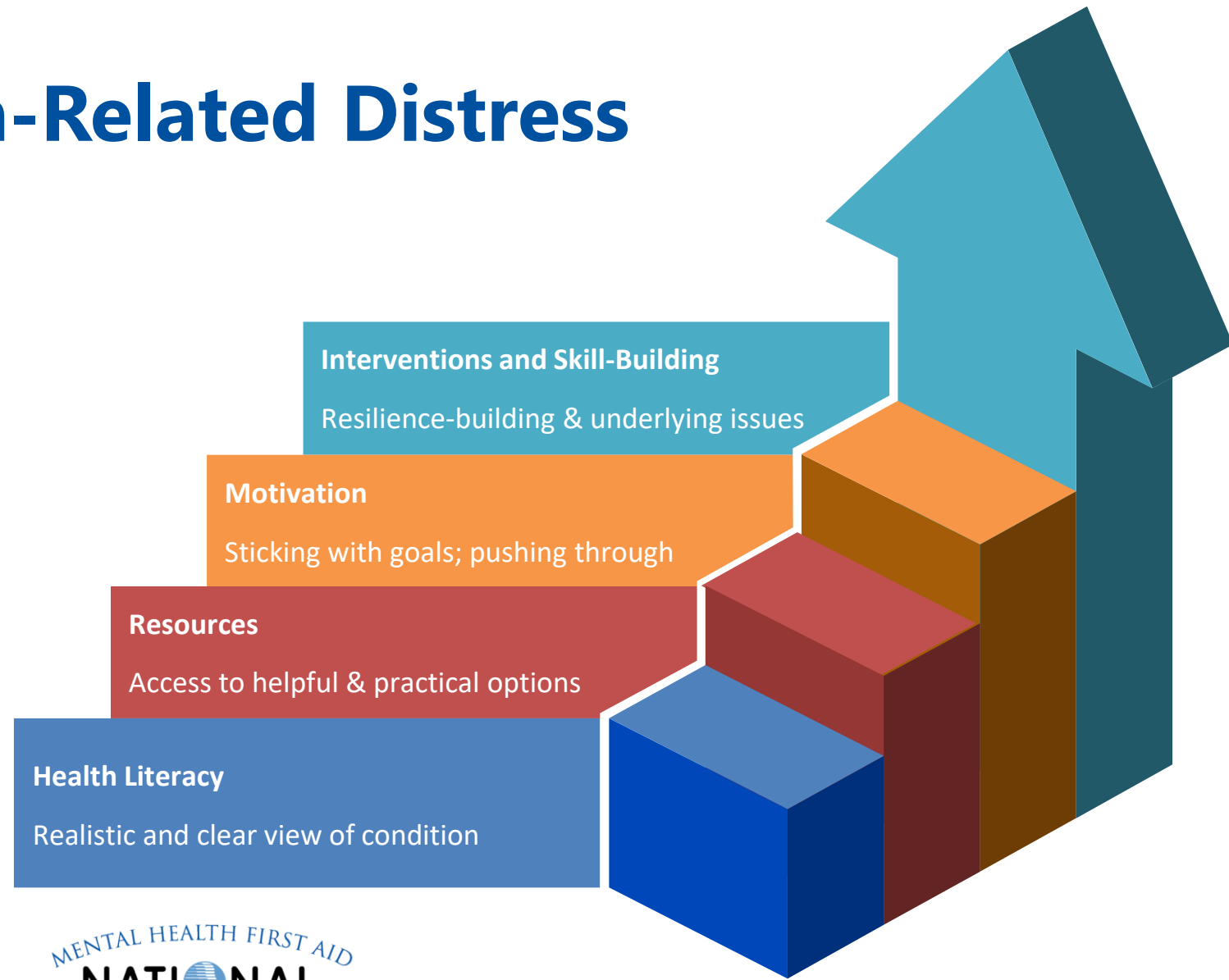
**6-7x**



# Managing Condition-Related Distress

## Functional coping:

Address health literacy, resources, and motivation







Scale



Breadth

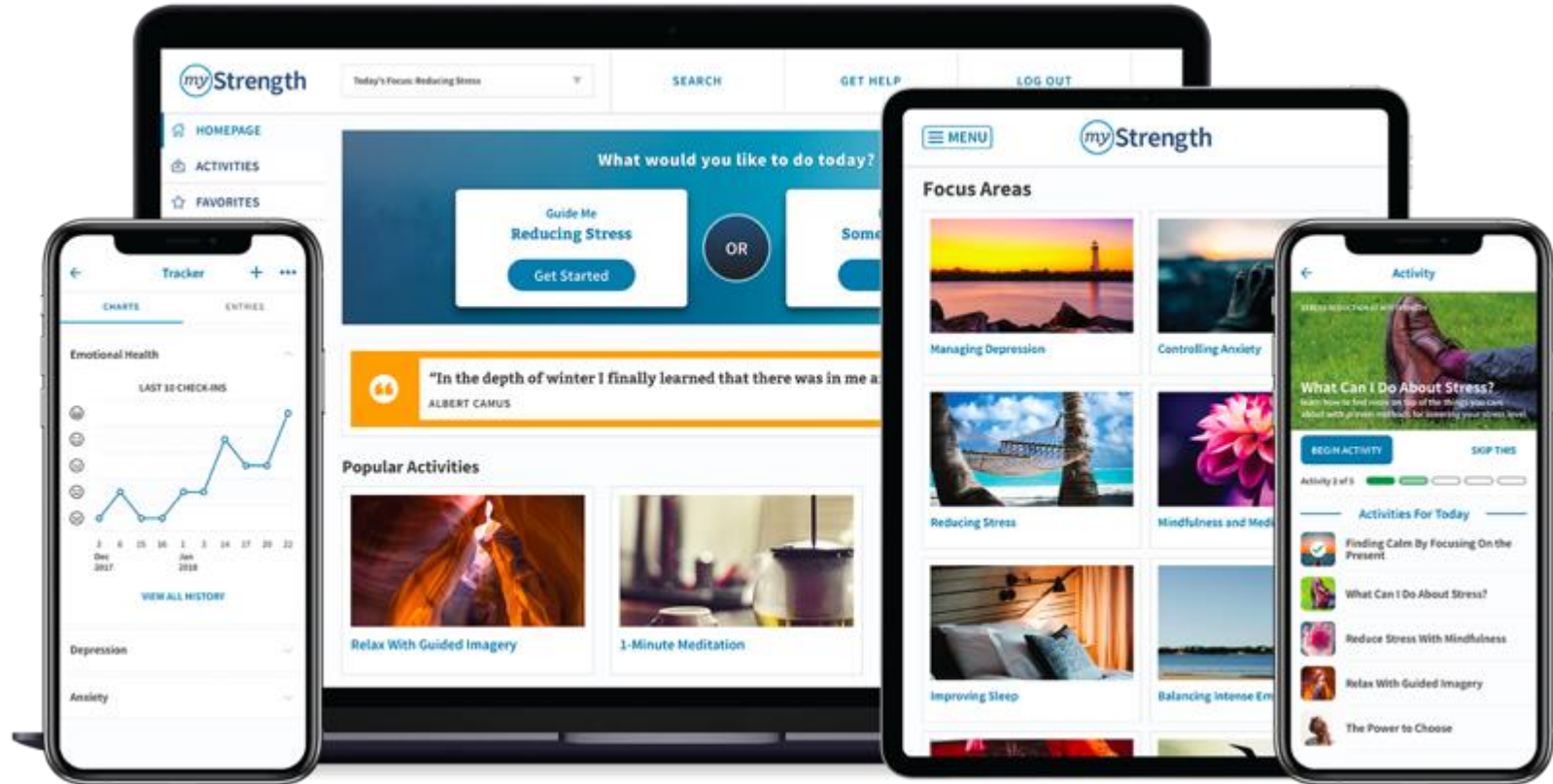


Personalization



Results

# myStrength: The Market Leader in Full-Spectrum Digital Behavioral Health

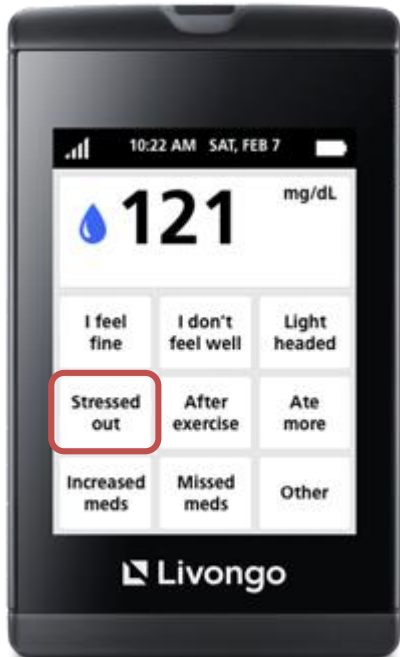


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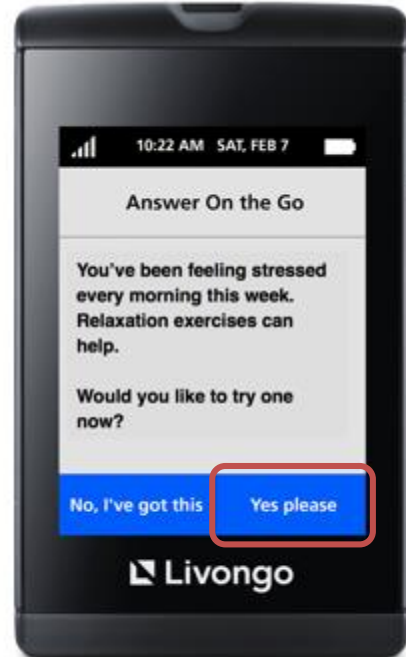
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# Addressing the Whole Person through Cross-Condition Optimization

## Digital



Behavioral Health Signals

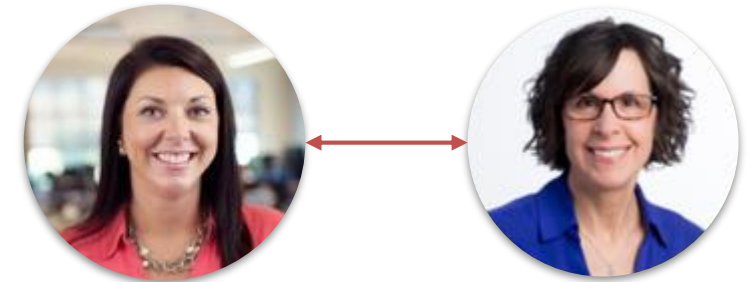


Insights & Health Nudges



Rich Library of Effective Tools

## Clinical Services Support



A multidisciplinary team of Livongo Expert Coaches support members in cross-condition challenges, proactively respond to symptoms and monitoring data, and improve overall product engagement.

External Providers

# Missouri Medicaid All Claims Analysis



2016:  
Partnership  
established

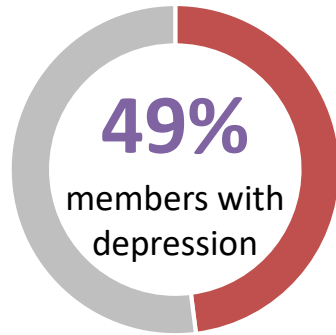
25 Missouri community  
mental health centers  
(CMHCs) integrated  
myStrength's web and  
mobile tools

2018: Study  
concludes;  
findings  
published in  
the *Journal of  
Medical  
Economics*



# Missouri Medicaid Study Results

## Clinically Significant Improvement



## Return on Investment

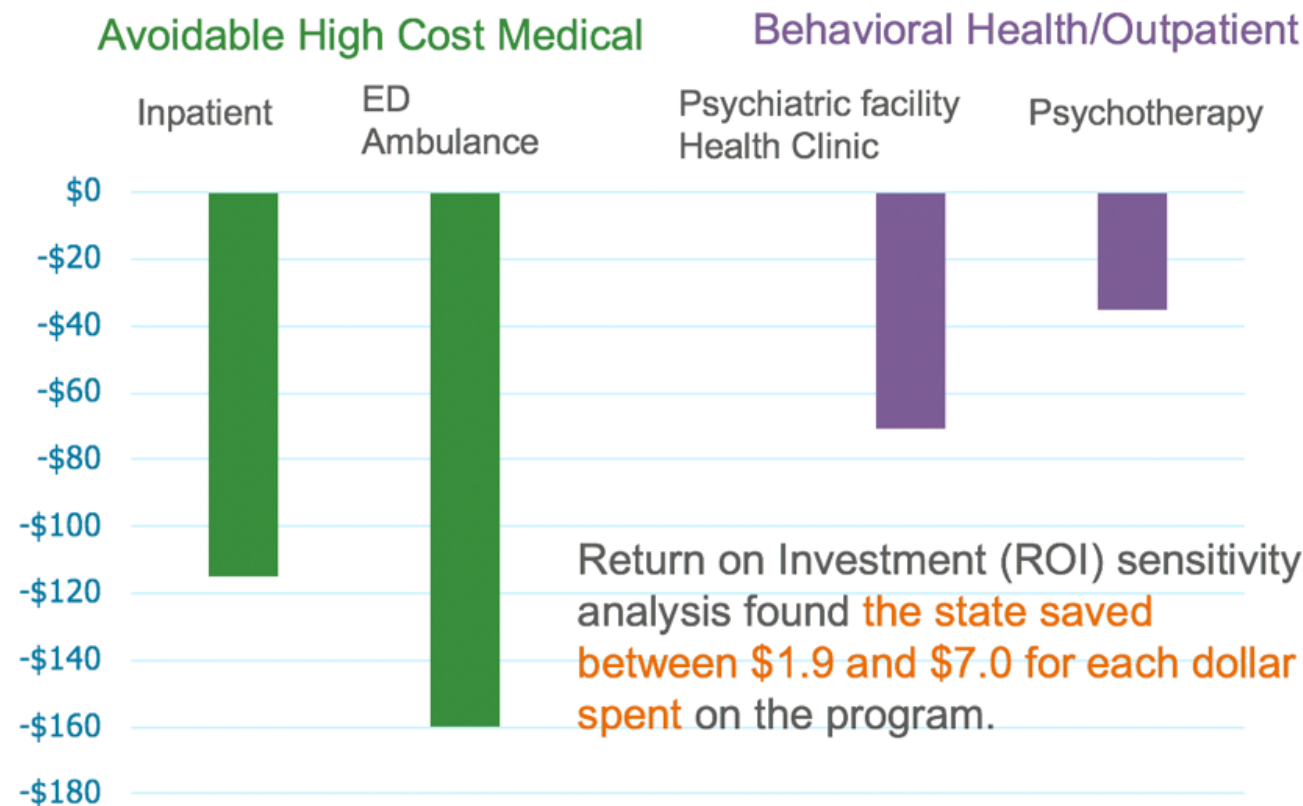
**4.8x**

myStrength return on investment (ROI) delivered to the state of Missouri in the first year of implementation

**\$382**

greater cost reduction in annual all-cost claims for myStrength users the year following exposure to myStrength relative to the standard of care control group

# Difference in Difference Cost Savings



These difference in difference results illustrate the expected savings generated by the introduction of myStrength.

**Difference in Difference:**  
The difference between pre- and post-myStrength launch within each condition, and then the difference between conditions, including consumers who used myStrength and those who did not.



# Dr. Manuel A. Castro



Medical Director of  
Behavioral Health  
Integration



- Leads innovative, sustainable and clinically-efficacious Virtual BH Integration model
- Chief of the Department of Psychiatry at Atrium Health
- Staff Psychiatrist responsible for medication management and clinical supervision of behavioral health emergency room, adult inpatient for the severe and persistently mentally ill, and adult outpatient for maintenance treatment
- Board certified in adult psychiatry
- Accepted the 2017 National Council for Behavioral Health Award of Excellence in Whole Person Care
- Fellow for the American Psychiatric Association
- Recipient of the Brian R. Nagy MD teaching award at Atrium Health Medical Center Behavioral Health Charlotte
- Adjunct Associate Professor of Psychiatry with UNC-Chapel Hill





# Atrium Health Virtual Behavioral Health Integration



# Behavioral Health Integration Primary Care

*“The key to making team-based medical care work... is helping the patient feel that his or her relationship with the primary-care provider is at its center.”*

**Stigma is Lower**

**Greater than 50% of all psychotropics prescribed by PCPs**

**70% of PCP visits involve a behavioral concern**

**50% of patients referred to psychiatry do not attend appointment**

**2/3 of PCPs report limited access to BH services**

## **Patient Centered**

**Improve  
early  
detection**

**Timely  
access to  
services**

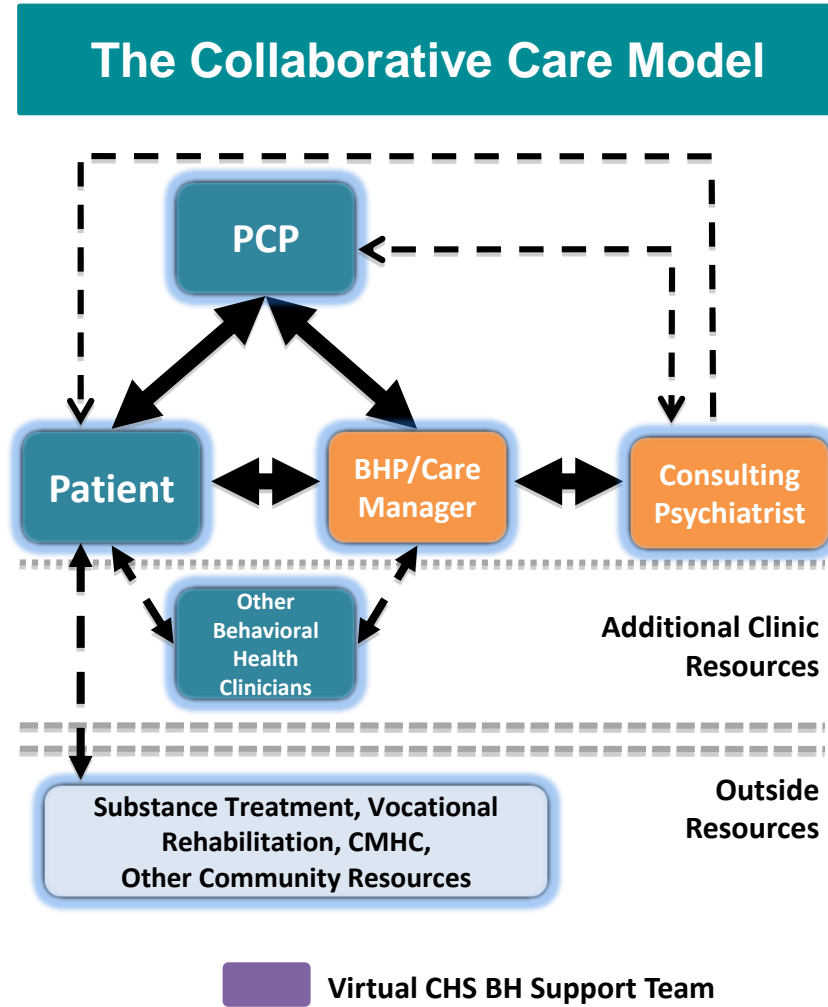
**Identify  
patients that  
require a  
psychiatric  
referral**

**Drive cost-  
effective &  
clinically  
effective  
treatment**

**Support the  
primary  
care  
provider**



# Overview



## The Team

## Behavioral Health Professional

- LCSW/LPC, Psych RN

## Health Coach

- Bachelor level with 2 years' experience
- Obtain Health Coach Certification within 1 year of hire date

## Provider

- Adult Psychiatrist
- Child and Adolescent Psychiatrist
- Nurse Practitioner

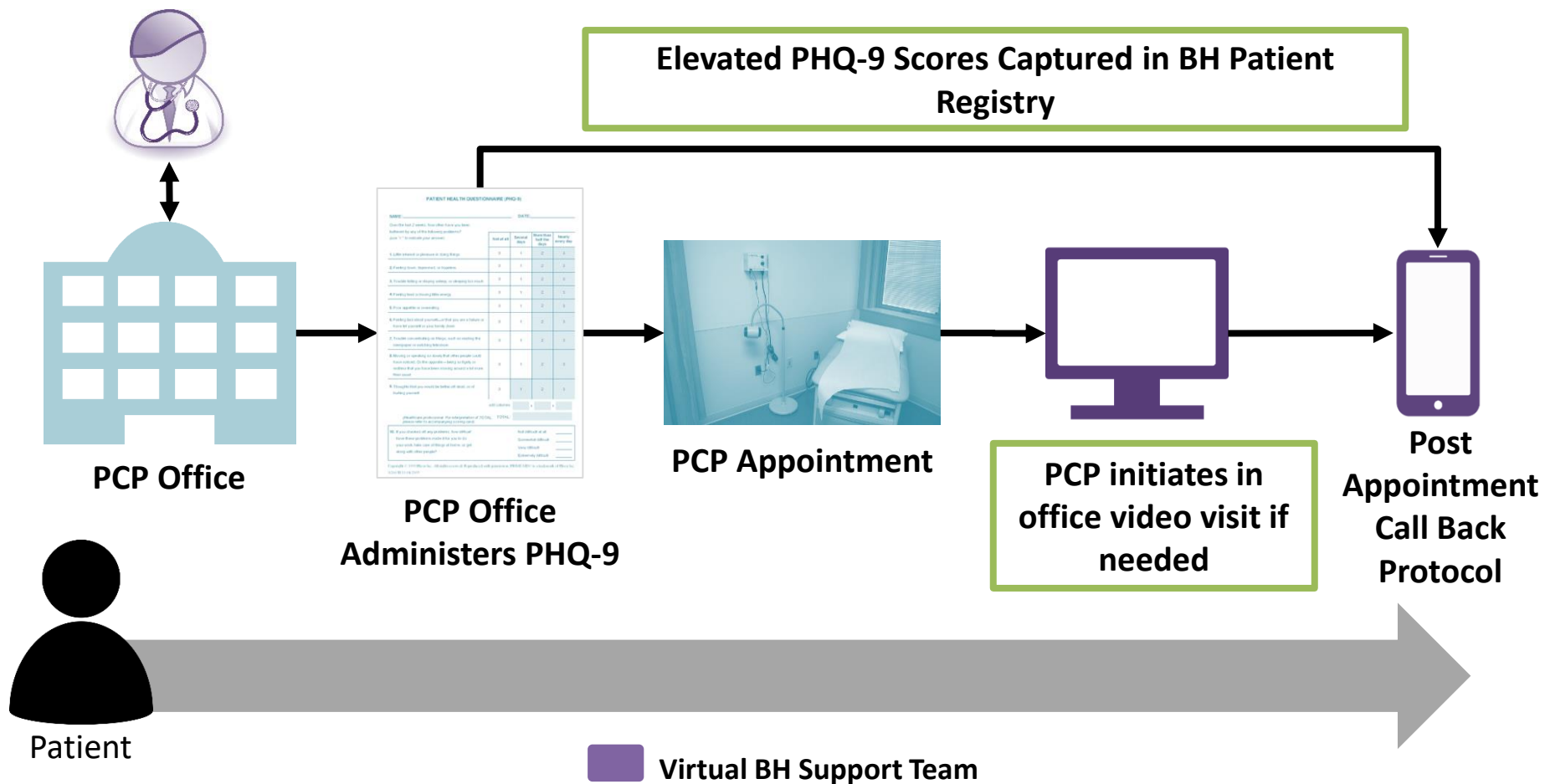
## Pharmacy

- Board Certified Psychiatric Pharmacist (BCPP)

# Process

PCP consults BH Provider  
for curb side chart review

Elevated PHQ-9 Scores Captured in BH Patient  
Registry



# Screening is the Driver, Standardization Makes it Scalable and Sustainable

**PATIENT HEALTH QUESTIONNAIRE (PHQ-9)**

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

Over the last 2 weeks, how often have you been bothered by any of the following problems?  
(use "✓" to indicate your answer)

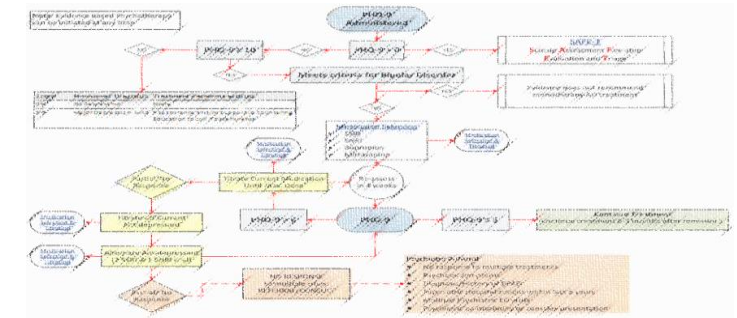
	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless				
3. Trouble falling or staying asleep, or sleeping too much				
4. Feeling tired or having little energy				
5. Poor appetite or overeating				
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down				
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

add columns    +    +    +

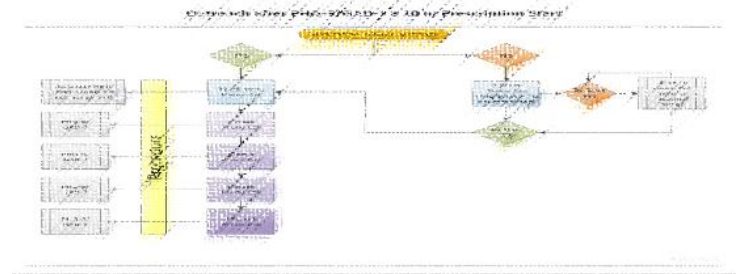
(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL: \_\_\_\_\_

Standardized tools in the PCP setting enhance screening, diagnosis, and treatment planning

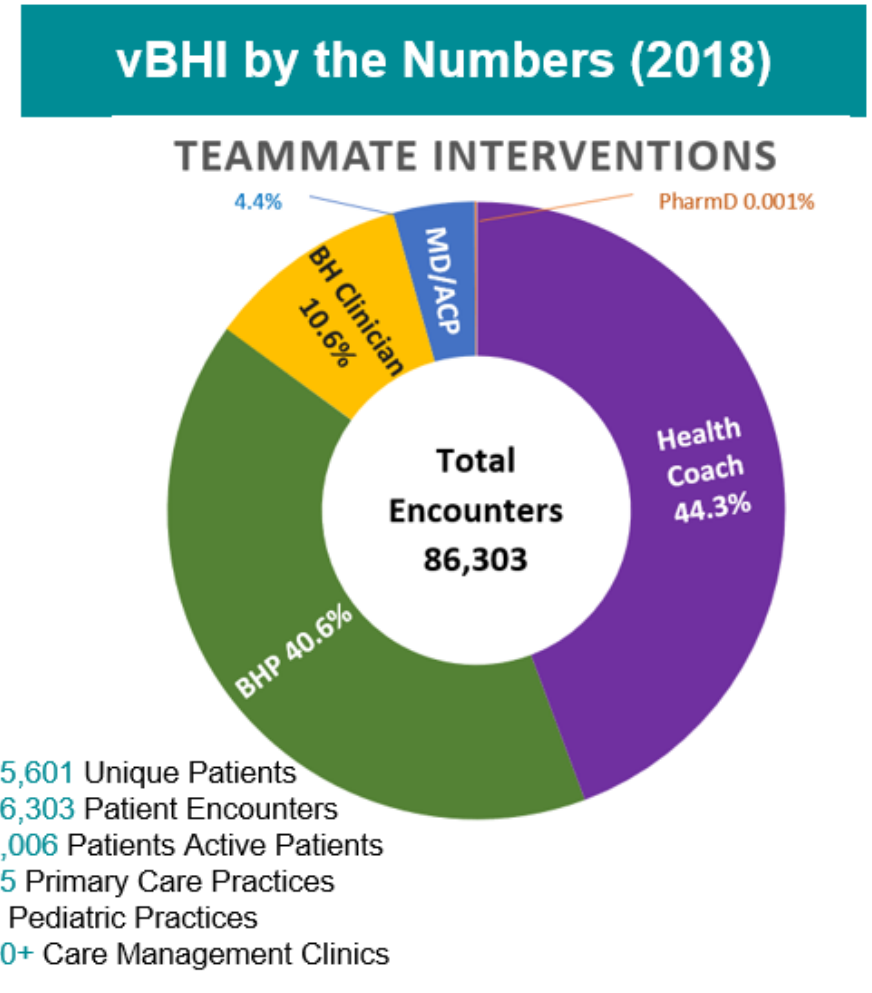
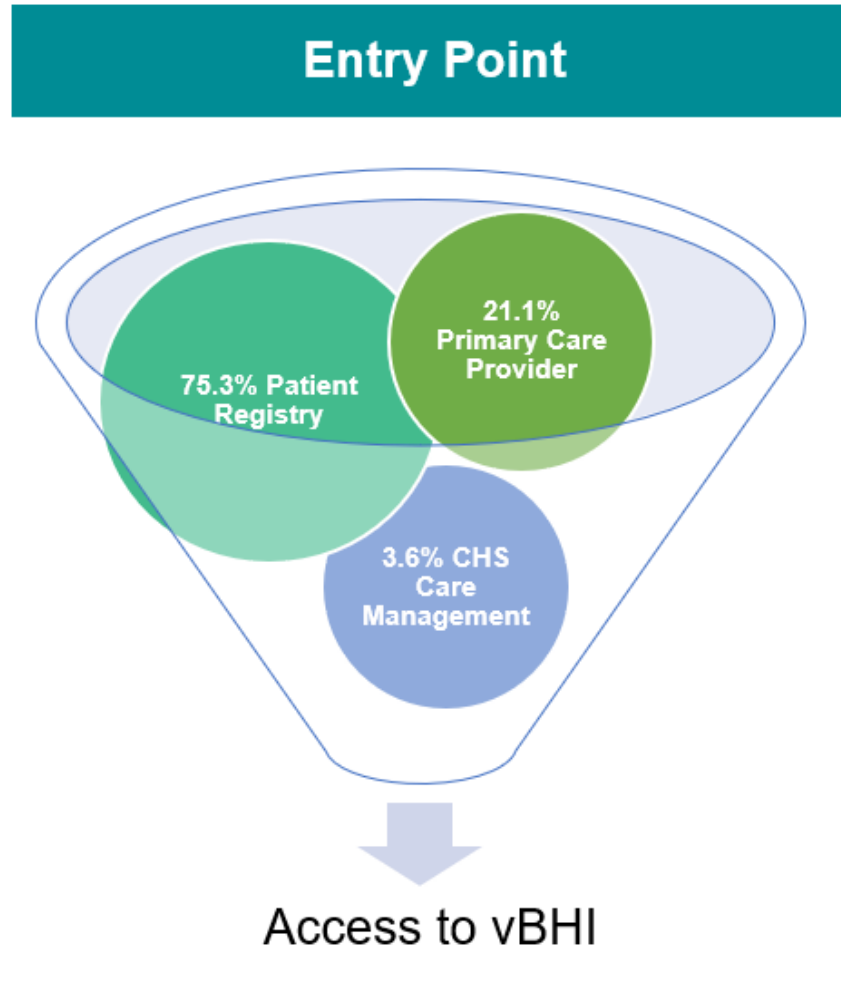
## Evidenced-Based Treatment



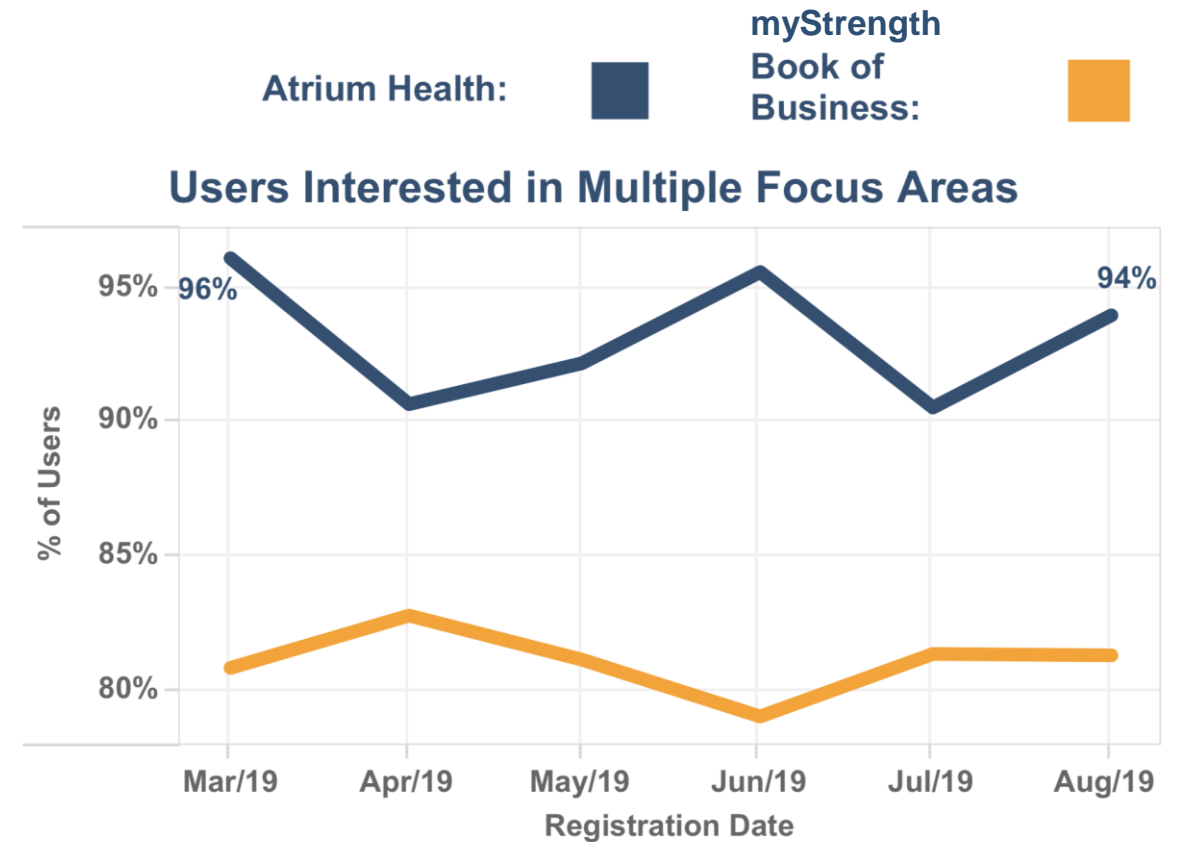
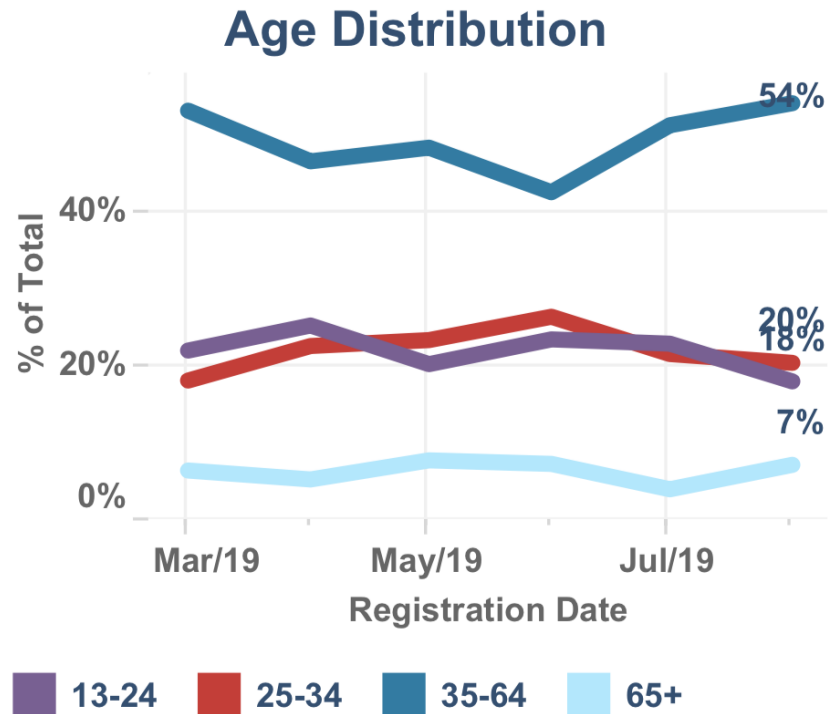
## Patient Engagement Recovery



# vBHI by the Numbers (2018)



# myStrength Utilization by Atrium Population (Aug. 2019)



# Outcomes: Disease Severity

## Depression

**60.2%** of patients receiving BHI services demonstrated 50% reduction in PHQ-9 score

## Anxiety

**65.9%** of patients receiving BHI services demonstrated 50% reduction in GAD-7 score

## Remission

**44.1%** of patients receiving BHI services achieved remission

## Suicidal Ideations

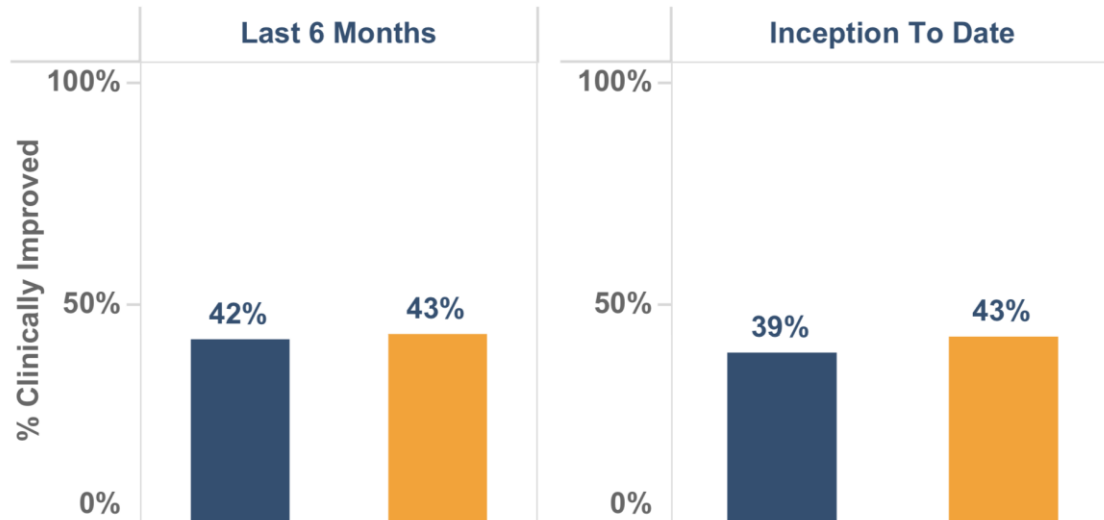
**88.0%** of patients receiving BHI services endorsed absence of suicidal ideations upon completion of Health Coaching



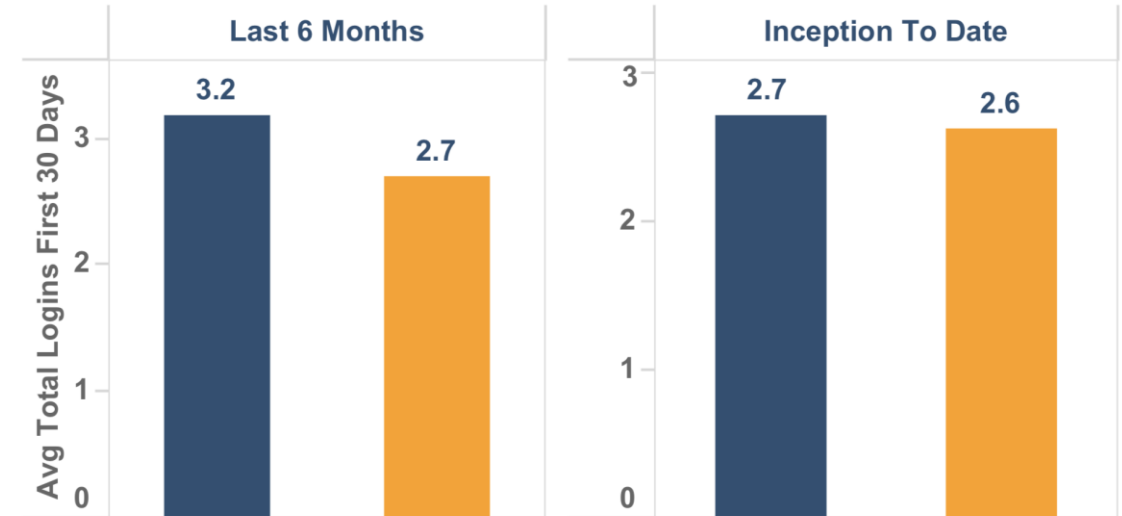
# myStrength Utilization by Atrium Population (Aug. 2019)

Atrium Health:  myStrength Book of Business: 

## % Clinical Improvement

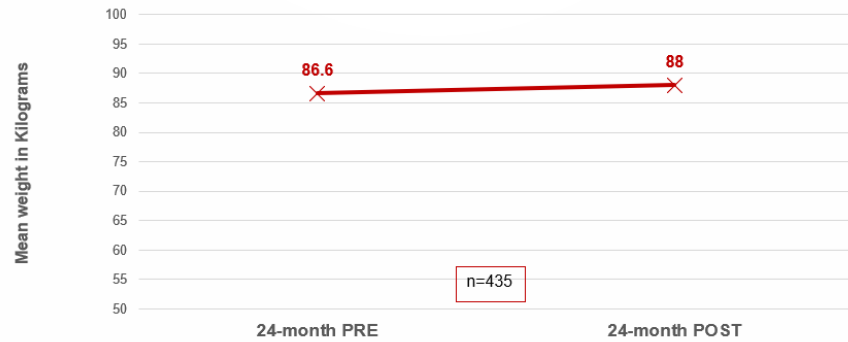


## Avg. Total Logins In The First 30 Days

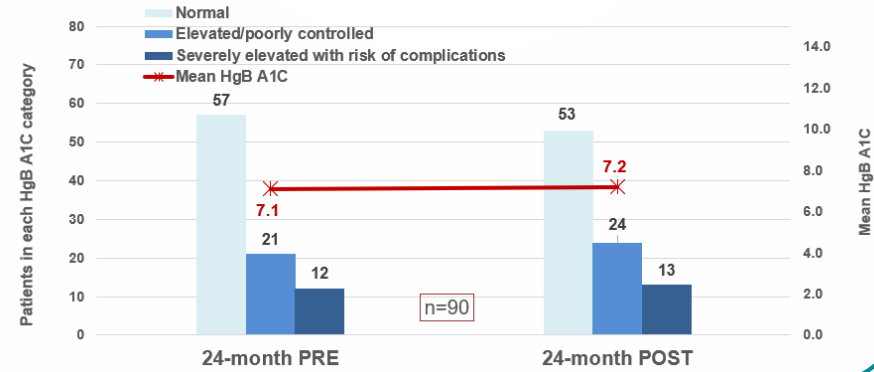


# Outcomes: Clinical

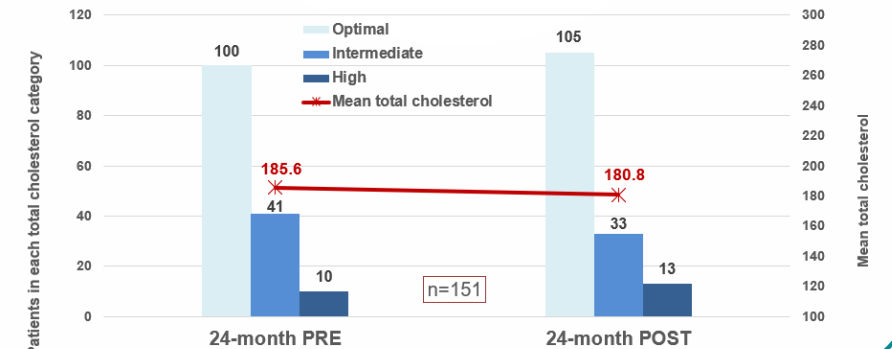
## Weight



## HgB A1C

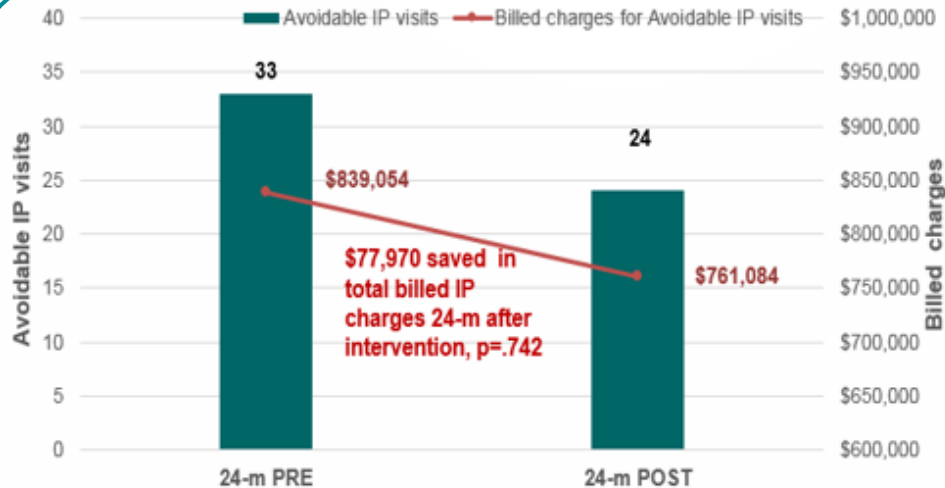


## Lipids: Total Cholesterol

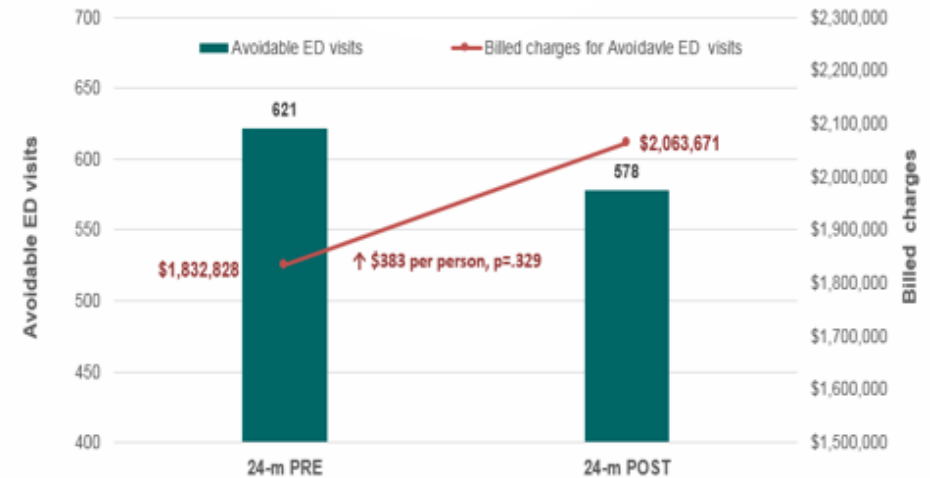




# Outcomes: Healthcare Utilization



- There was **27%** reduction in avoidable inpatient visits (from 33 visits pre- to 24 visits post-intervention). Inpatient visits were classified as avoidable using AHRQ Prevention Quality Indicator (PQI) methodology



- There was **7%** reduction in avoidable ED visits (from 621 visits pre- to 578 visits post-intervention,  $p=.883$ )
- Visits were classified as avoidable using NYU ED Algorithm (types of avoidable visits included: Non Emergent, Emergent but PCP Treatable and Emergent but preventable)

# Lessons Learned



- Leadership support.
- One EMR is very helpful or full access (no read-only access).
- Standardized work in development and refinement (including teammate expectations and tools that must be followed).
- Standardize screenings:
  - Who
  - When
  - Where in the EMR
- Utilize data analytics to drive focus and improve outcomes.
- No a la carte ordering.



# What Atrium Consumers are Saying About myStrength

*"It helps me to know that **someone understands what I deal with mentally**. The emails are great pick me ups! I share them"*

*"[Gives] me information to **get over those road bumps in life**"*

*"**I have learned a lot** from the activities as well as the daily logging of my sleep. I have started to understand how different things effect me."*

*"I was hoping it would **help me focus on the positives** and it did. The activities and inspirational quotes and images helped me do just that."*

*"I've been able to **get a better understanding** of how I should treat my depression and anxiety."*

*"Rather than dwelling on the problem and how it's affected me, I need to ask 'How can I **overcome this** and think more positively?' myStrength has given me the tools to actually do that."*



# Questions for our Experts?



**Dr. Joe Parks**  
Medical Director



**Dr. Julia Hoffman, Psy.D.**  
VP of Behavioral Health Strategy



**Dr. Manuel A. Castro**  
Medical Director of Behavioral  
Health Integration

