



# Recognizing the Link Between Physical and Mental Health



## Today's speakers

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- **Kendell Andrus**  
Behavioral Health Network Trainer



# Today's agenda

- Discuss the rationale for integration of physical and behavioral health care
- Explore evidence supporting the causal relationships between physical and mental health
- Discuss the Adverse Childhood Experiences (ACE) Study and its implications for long-term health
- Review models of behavioral health integration and consider their strengths and weakness.





Mind and body are not separate



Mental illness makes people physically ill



Physical illness makes people mentally ill



Medical needs present in the mental health setting



Mental health needs present in the medical setting

Healthcare Reform

Reduced Stigma and  
Increased Cultural  
Awareness

Mental Health Parity and  
Addiction Act of 2008

# The cost of healthcare

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## Health Care Grows as a Share of GDP

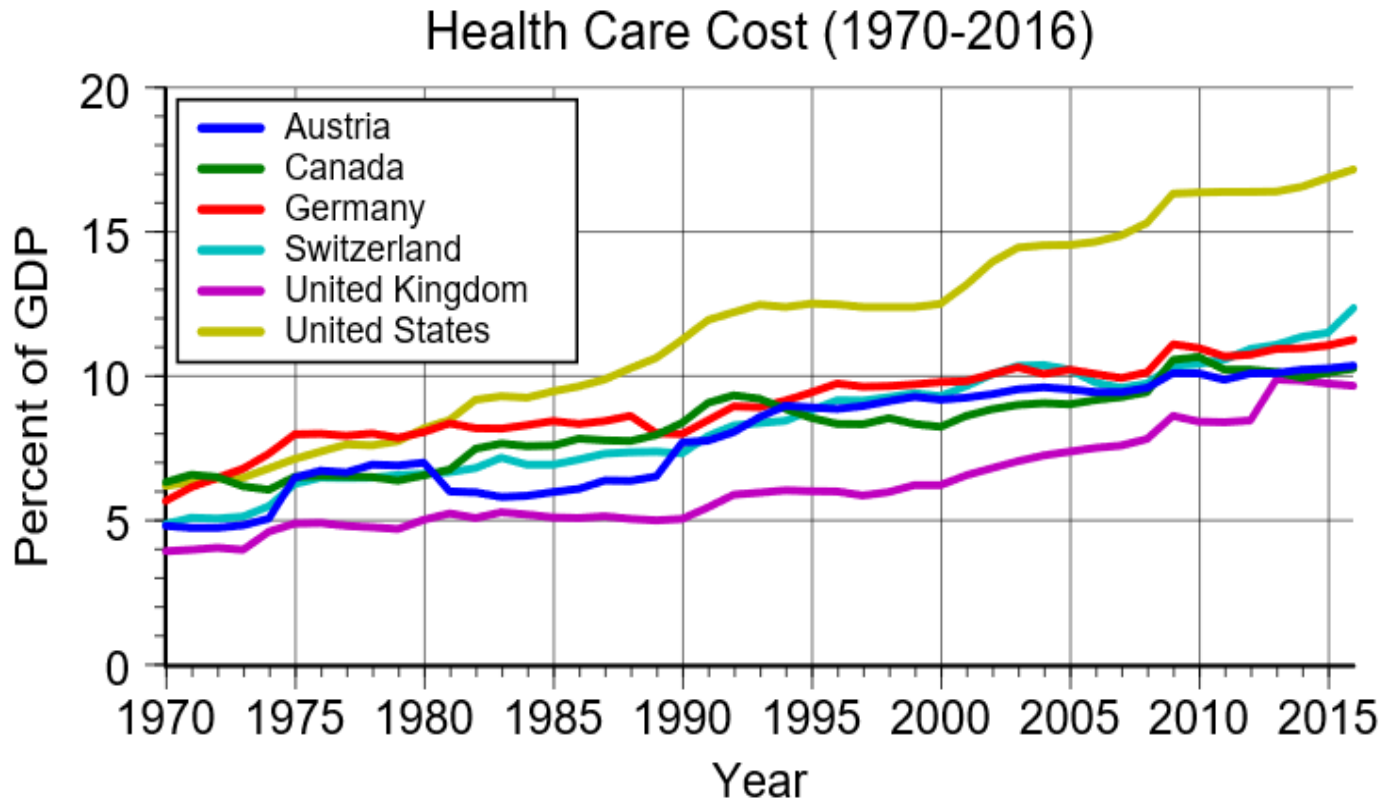
For decades, health care has been taking up an increasing piece of the U.S. economy, and totaled a record 17.5 percent of GDP in 2014, up from 17.3 percent the year before.




Source: Office of the Actuary, Centers for Medicare and Medicaid Services



# The growing cost of healthcare



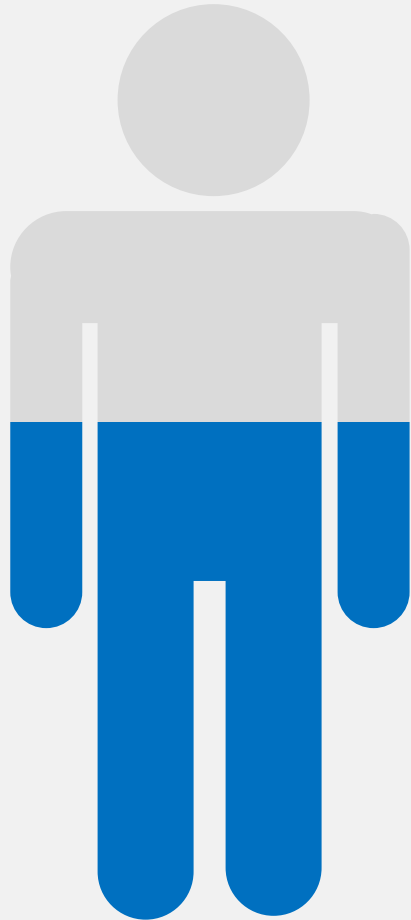


Improving the U.S. health care system requires simultaneous pursuit of three aims: improving the experience of care, improving the health of populations, and reducing per capita costs of health care. Preconditions for this include the enrollment of an identified population, a commitment to universality for its members, and the existence of an organization (an “integrator”) that accepts responsibility for all three aims for that population. The integrator’s role includes at least five components: partnership with individuals and families, redesign of primary care, population health management, financial management,

and more system integration. (Health Affairs 27, no. 3 (2008): 759-766. doi:10.1377/hlthaff.27.3.759)



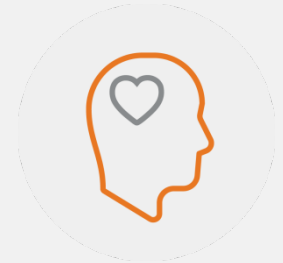
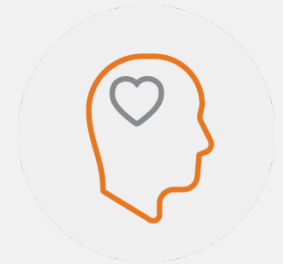
# Referring Out...



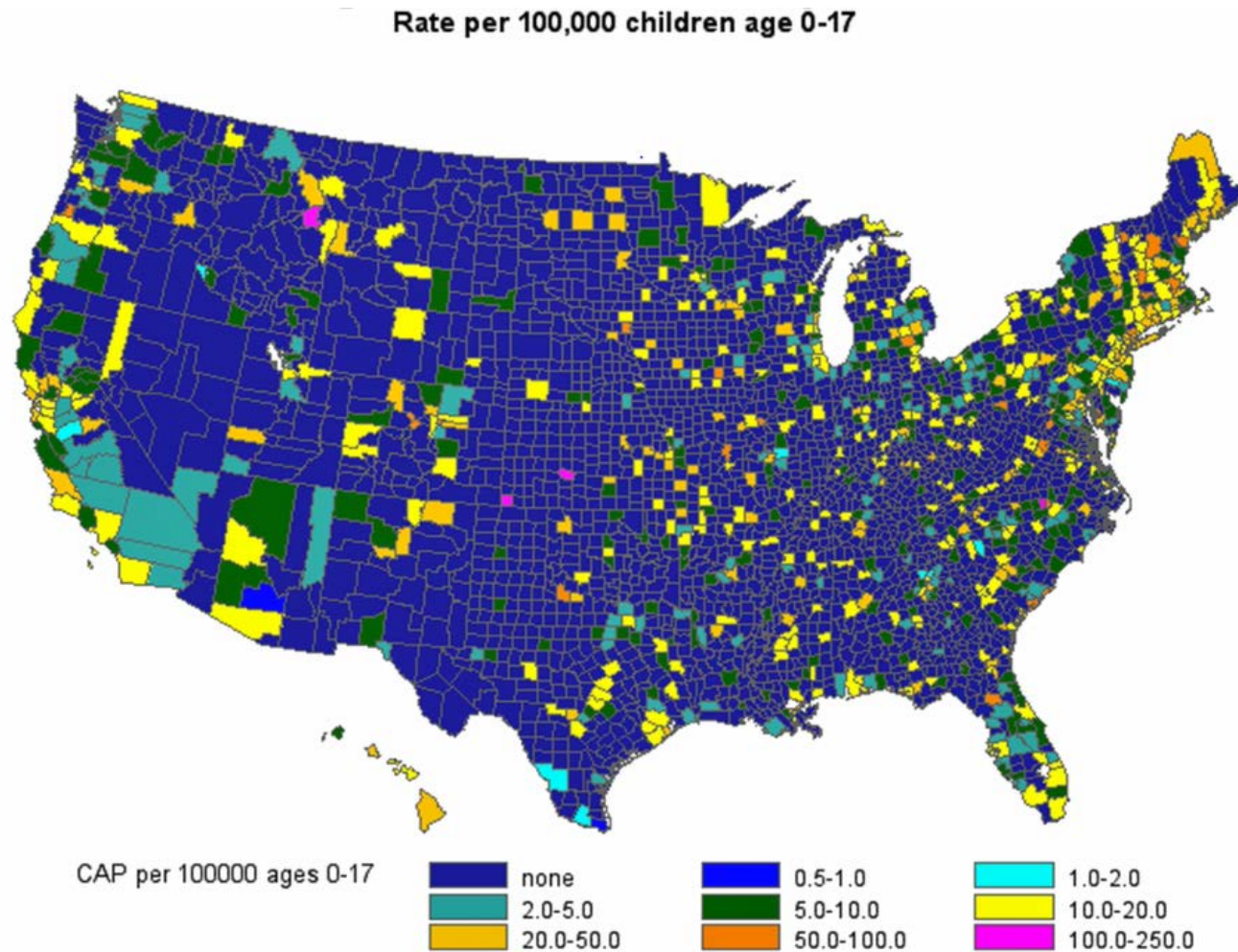
50%

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50 % of patients referred to  
Mental Health providers  
don't get services

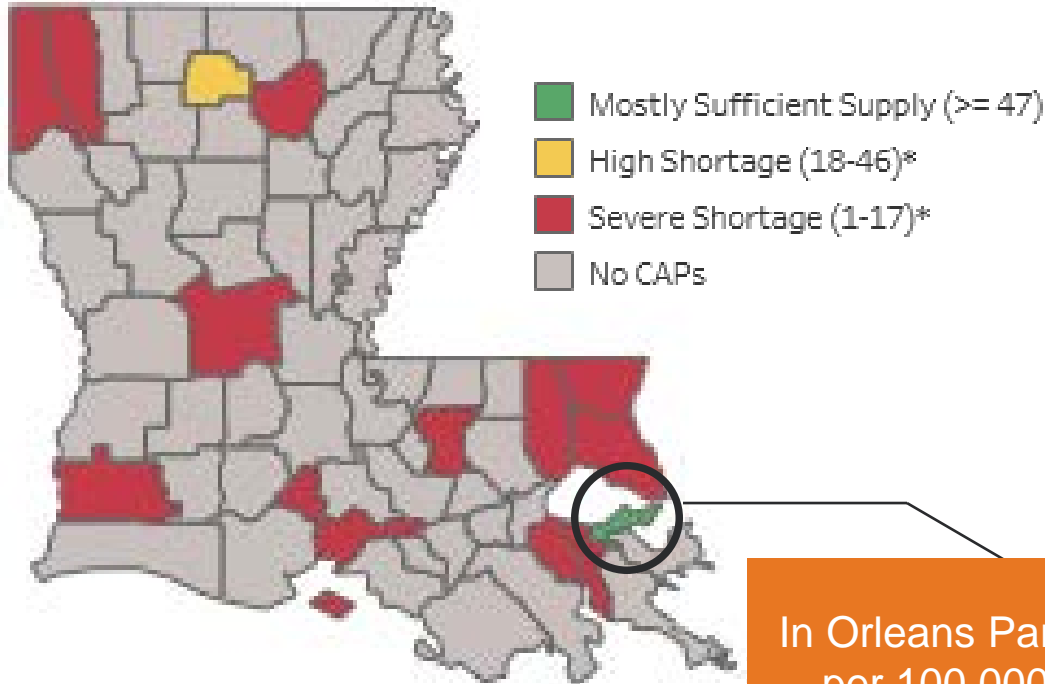


# Practicing child and adolescent psychiatrists



(c)AACAP by C.E.Holzer capkid 29MAR13

# Practicing Child and Adolescent Psychiatrist in Louisiana



Number of Children <18  
1,114,773

Total CAPs  
94

No. of CAPs per 100k  
8

Average CAP Age  
49

In Orleans Parish there are 49.55 CAPs per 100,000 children below age 18.

# Integration of Behavioral Health Within Overall Healthcare



Reduction of Stigma



Improving Access to Care



Improving Outcomes

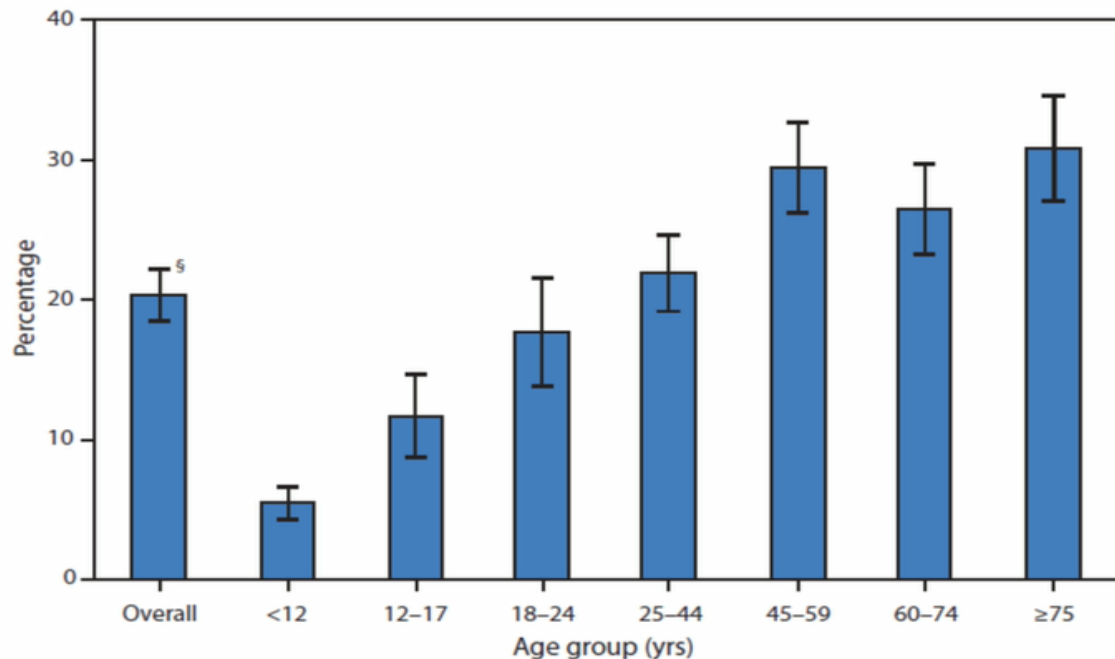


# Percentage of mental health related primary care office visits

**QuickStats: Percentage of Mental Health-Related\* Primary Care<sup>†</sup> Office Visits, by Age Group — National Ambulatory Medical Care Survey, United States, 2010**

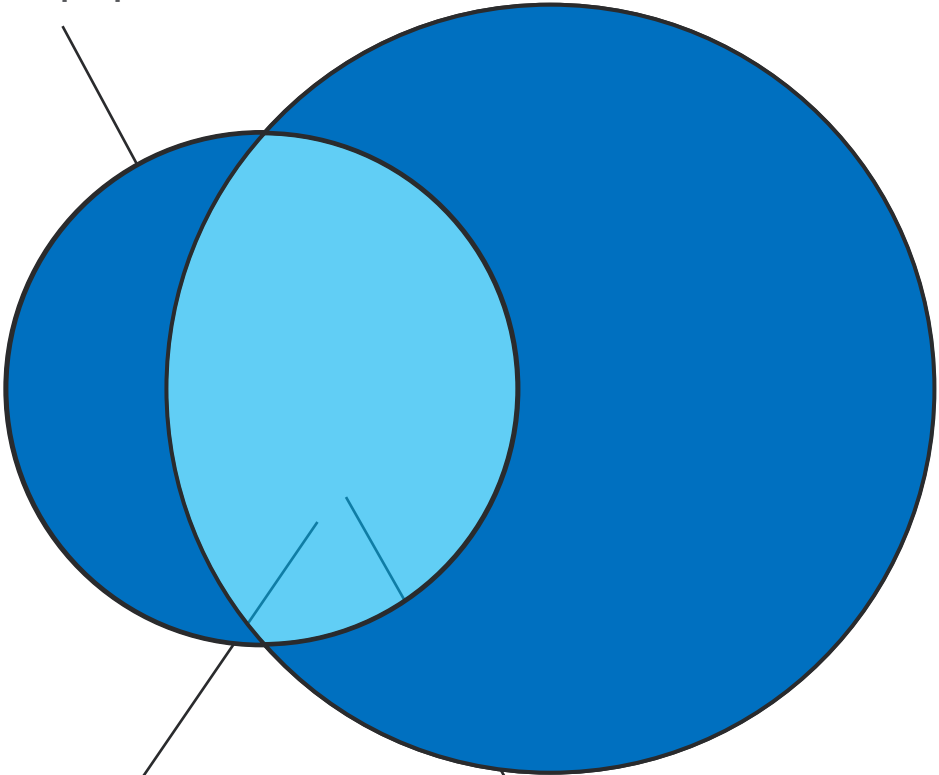
*Weekly*

**November 28, 2014 / 63(47);1118**



People with medical conditions:  
**58%** of adult population

People with mental health disorders: **25%** of adult population



**68%** of adults with mental health disorders have medical conditions

**29%** of adults with medical conditions have mental health disorders



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# Is Severe Mental Illness Associated with Poor Physical Health?

68%

Of adults with mental illness have at least one significant physical illness

3x

As likely to die prematurely from their health conditions

25 yrs

SMI vs. General Population



# Health Risk Behaviors

Tobacco

Substance Abuse

Poor Diet

Lack of physical activity

High risk sexual activity





# Diabetes self-care and major depression

**Table 1. Diabetes Self-Care and Major Depression**

Self-Care Activities (past 7 days)	No Major Depression <sup>a</sup>	Major Depression <sup>a</sup>	Odds Ratio <sup>b</sup>	95% CI	Significance
<b>Diet</b>					
Healthy eating ≤1 time/wk	8.8%	17.2%	2.1	1.59-2.72	<i>P</i> <.0001
5 servings of fruits/vegetables ≤1 time/wk	21.1%	32.4%	1.8	1.43-2.17	<i>P</i> <.0001
High-fat foods ≥6 times/wk	11.9%	15.5%	1.3	1.01-1.73	<i>P</i> <.04
<b>Exercise</b>					
Physical activity (≥30 minutes) ≤1 time/wk	27.3%	44.1%	1.9	1.53-2.27	<i>P</i> <.0001
Specific exercise session ≤1 time/wk	45.8%	62.1%	1.7	1.43-2.12	<i>P</i> <.0001
<b>Smoking</b>					
Yes	7.7%	16.1%	1.9	1.42-2.51	<i>P</i> <.0001

<sup>a</sup> Percentages are unadjusted.  
<sup>b</sup> Adjusted for these covariates: age, sex, marital status, education, race/ethnicity, medication risk, complications, treatment intensity, clinic, and physician generalized estimating equation.  
 Source: Reference 25.

Lin et al. Group Health Cooperative, 2004

# Social Determinants of Health

Poverty

Early Childhood Trauma

Chronic Psychological Stress

Exposure to Environmental Toxins

# Mental Health Symptoms Influencing Utilization of Healthcare Services

Stigma among providers affecting access and thoroughness of care

Idiosyncratic beliefs and paranoia

Difficulty with transportation and keeping appointments

Difficulty with compliance and following treatment regimens





## What Is Integrated Healthcare?



Mental health needs addressed in medical care settings

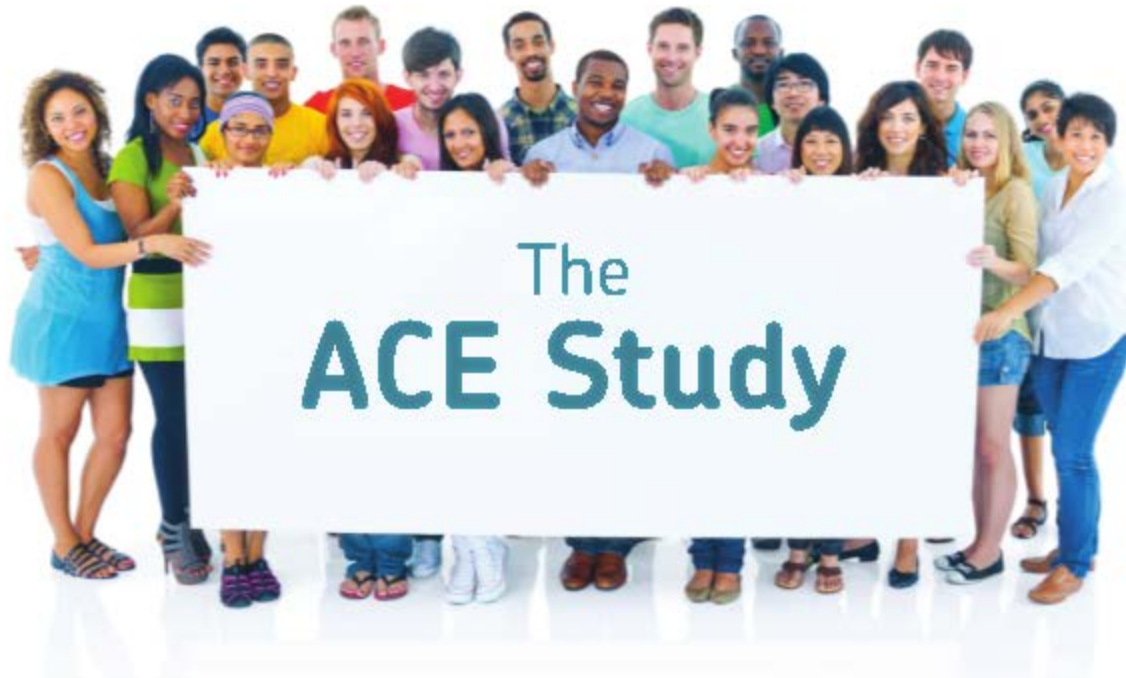


Physical health needs addressed in mental health settings



Mental and physical healthcare operating in the same system





## Research Article

# Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults

## The Adverse Childhood Experiences (ACE) Study

Vincent J. Felitti, MD, FACP, Robert F. Anda, MD, MS, Dale Nordenberg, MD, David F. Williamson, MS, PhD, Alison M. Spitz, MS, MPH, Valerie Edwards, BA, Mary P. Koss, PhD, James S. Marks, MD, MPH

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### Methods:

A questionnaire about adverse childhood experiences was mailed to 13,494 adults who had completed a standardized medical evaluation at a large HMO; 9,508 (70.5%) responded. Seven categories of adverse childhood experiences were studied: psychological, physical, or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned. The number of categories of these adverse childhood experiences was then compared to measures of adult risk behavior, health status, and disease. Logistic regression was used to adjust for effects of demographic factors on the association between the cumulative number of categories of childhood exposures (range: 0–7) and risk factors for the leading causes of death in adult life.

# ACE Study

01/12/14

**NEWS**

## Early Adversity Increases Physical, Mental, Behavioral Problems, Scientists Report



**Dr. Robert Anda & Dr. Vincent Felitti**  
Investigators

Centers for Disease Control & Prevention,  
Kaiser Permanente Study

Over 17,000 study participants

The ACE Study confirms, with scientific evidence, that adversity early in life increases physical, mental and behavioral problems later in life.



# Adverse Childhood Experiences (ACEs)

## ABUSE



Physical



Sexual



Emotional

## NEGLECT



Physical



Emotional

## HOUSEHOLD INSTABILITY



Mental Illness



Incarcerated  
Relative



Divorce



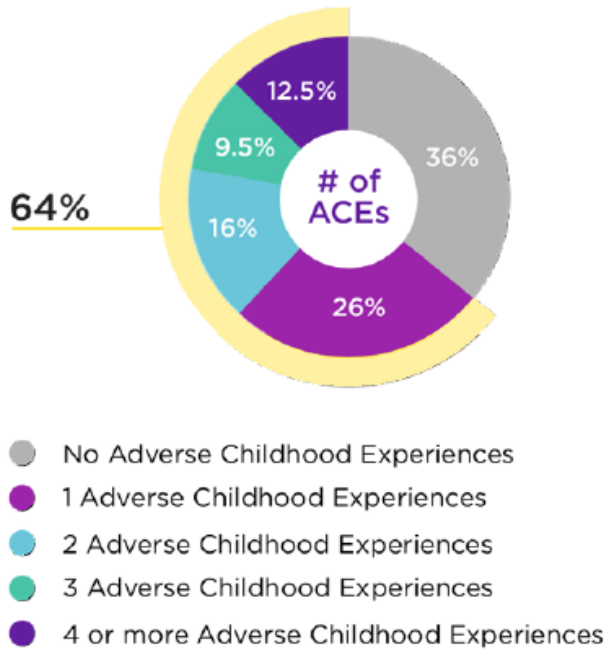
Mother Treated  
Violently



Substance  
Abuse

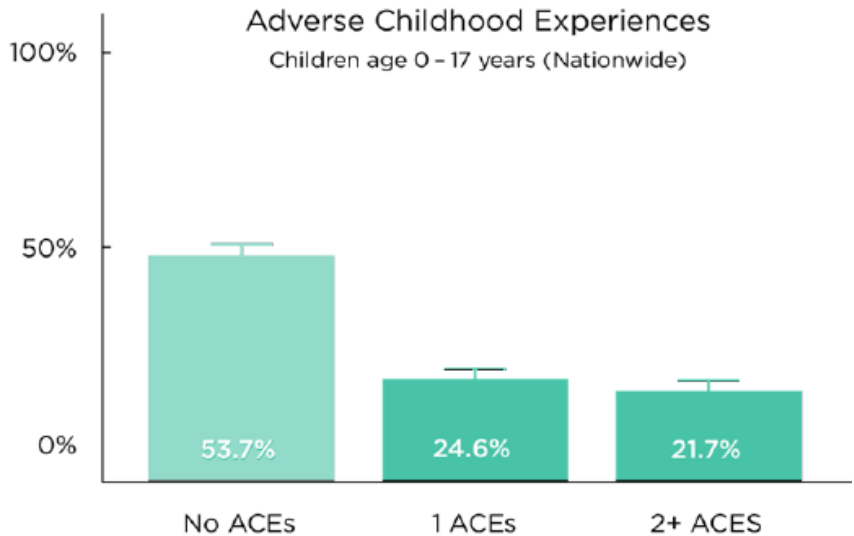
# ACEs are common:

- Nearly **2 out of 3 adults** have at least one ACE



Source: CDC-Kaiser ACE Study (1998)

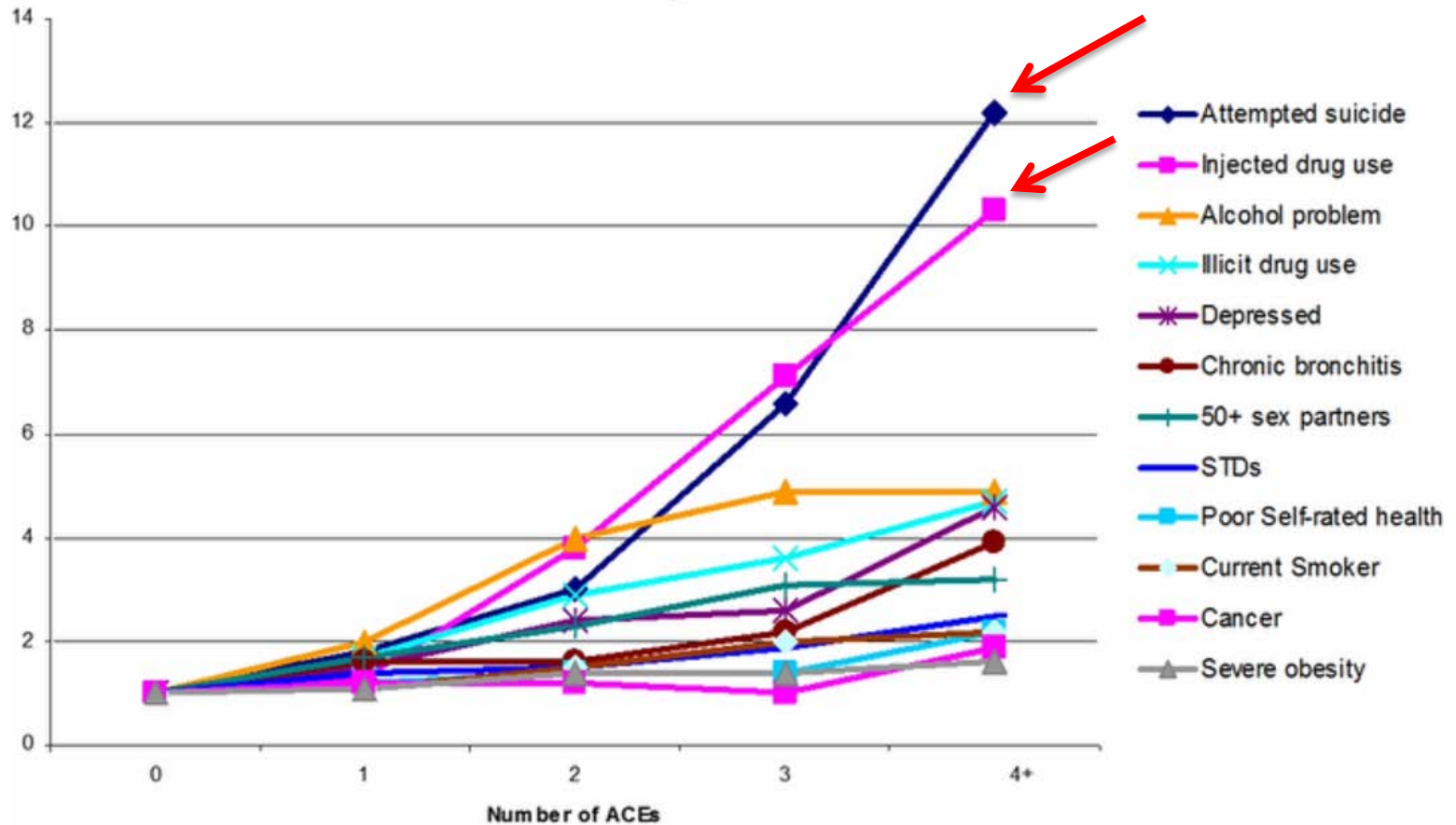
- Nearly **half of children** (34.8 million) have at least one ACE



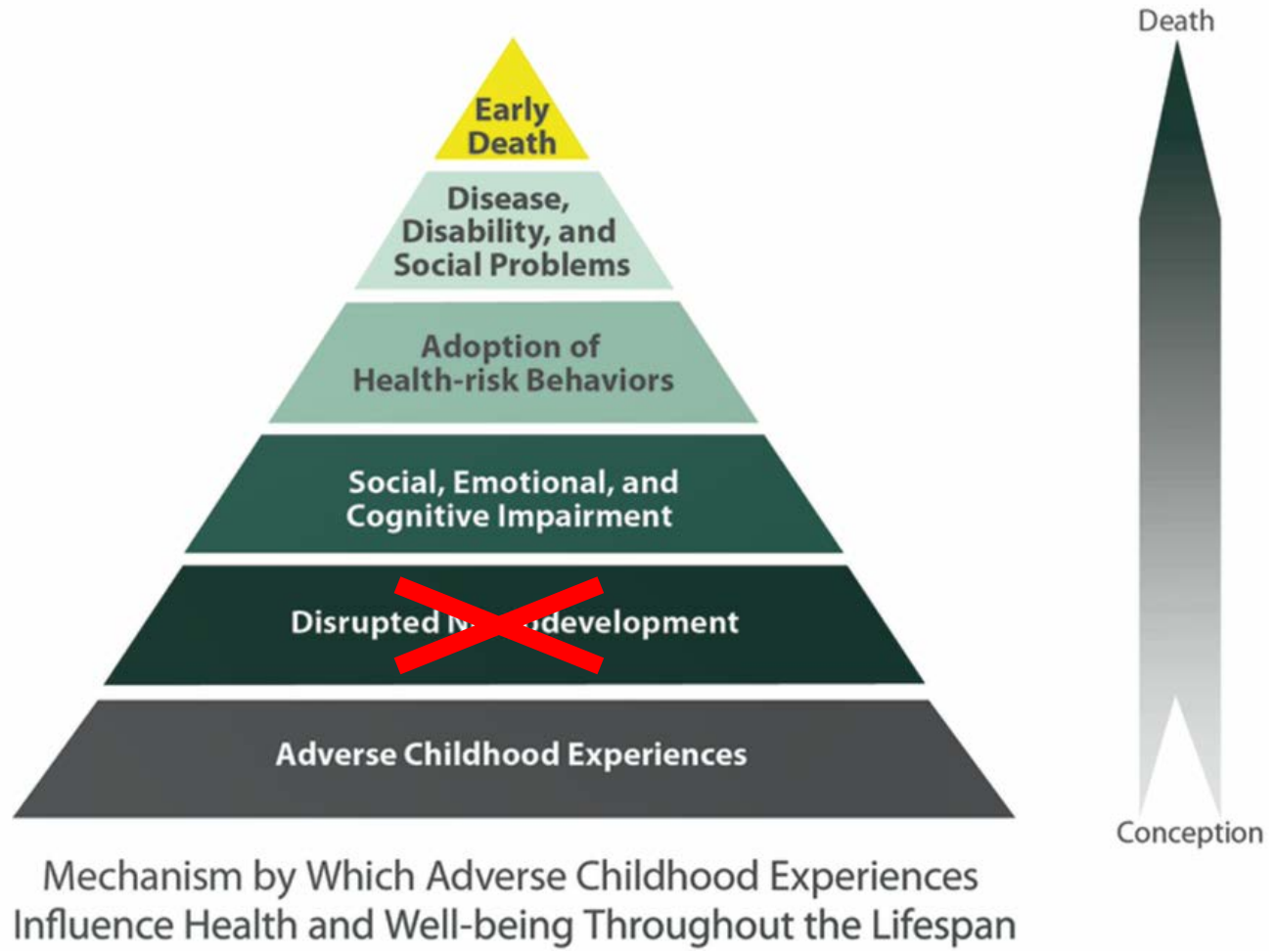
[http://www.cahmi.org/wp-content/uploads/2017/10/aces\\_fact\\_sheet.pdf](http://www.cahmi.org/wp-content/uploads/2017/10/aces_fact_sheet.pdf)

# Cumulative effect of ACEs

## ACE Study Odds Ratios



# ACEs influence on health



# What can be done about ACEs?

Voluntary home visiting programs can help families by strengthening maternal parenting practices, the quality of the child's home environment, and children's development.

Example: Nurse-Family Partnership



Home visiting to pregnant women and families with newborns



Parenting training programs



Intimate partner violence prevention



Social support for parents



Parent support programs for teens and teen pregnancy prevention programs



Mental illness and substance abuse treatment



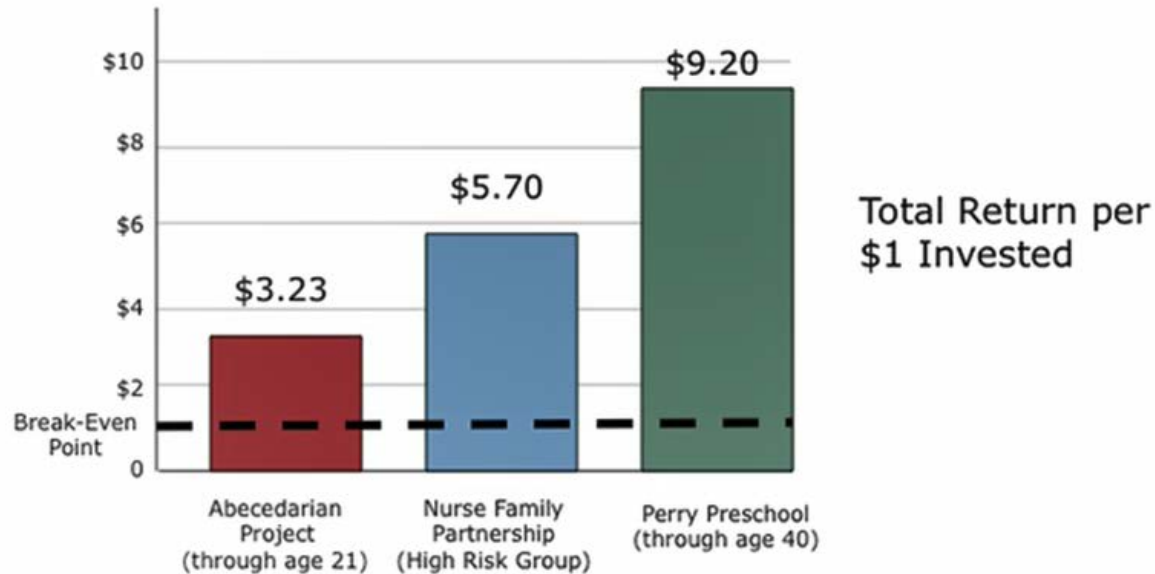
High quality child care



Sufficient income support for lower income families

# Cost benefit analyses

## Cost/Benefit Analyses Show Positive Returns Early Childhood Programs Demonstrating Range of Benefits to Society



Source: Karoly et al (2005); Heckman et al (2009). Credit: Center on the Developing Child.

## “The Primary Care Advantage”

- Patients and families often feel more comfortable and trusting of primary care providers
- Primary care providers have the opportunity for prevention and screening
- Experience coordinating care for children with multiple specialist and ancillary providers
- Primary care providers know the developmental context of symptoms
- Addressing psychiatric issues in primary care setting can reduce stigma

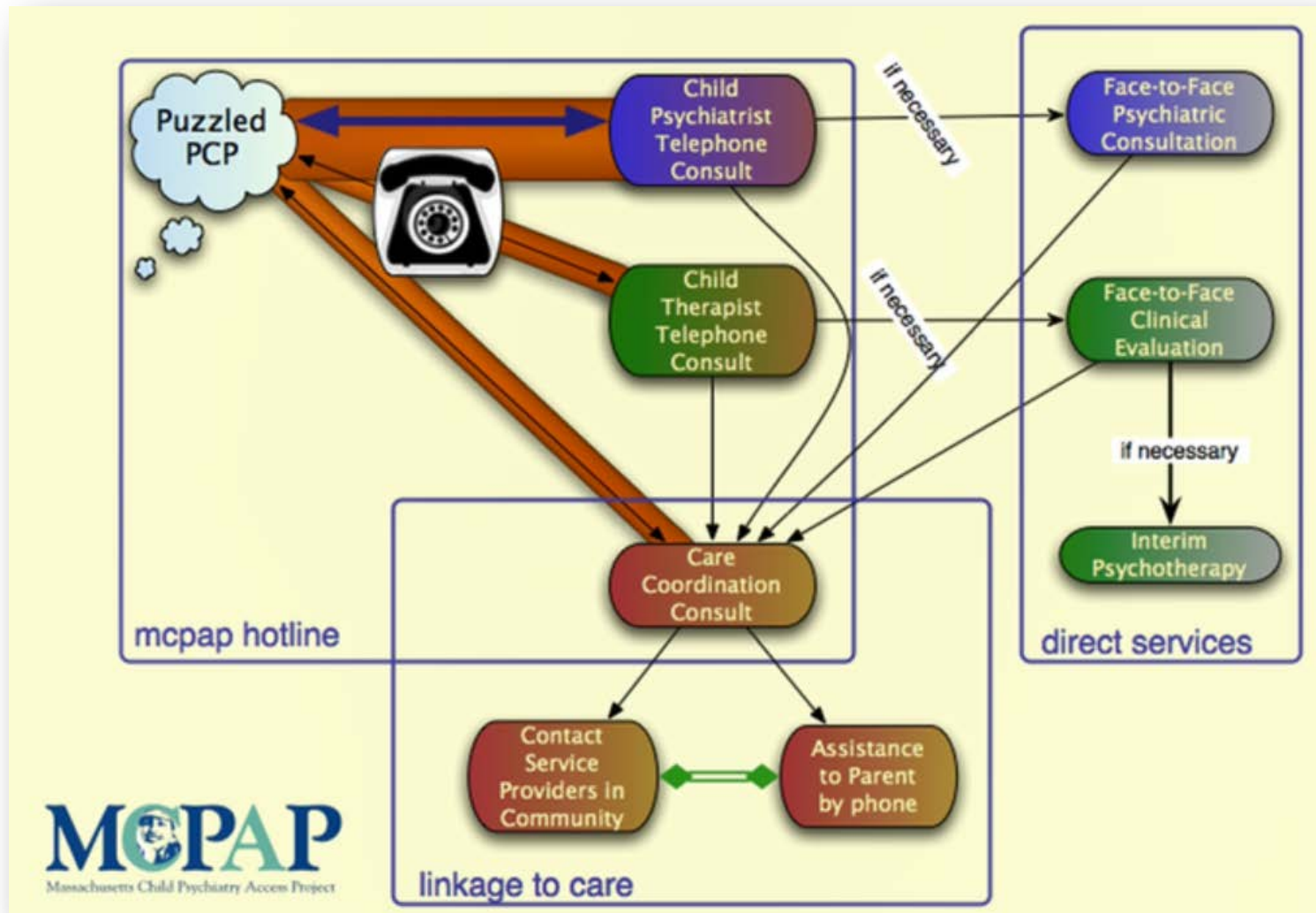


# Models of Mental Health Integration

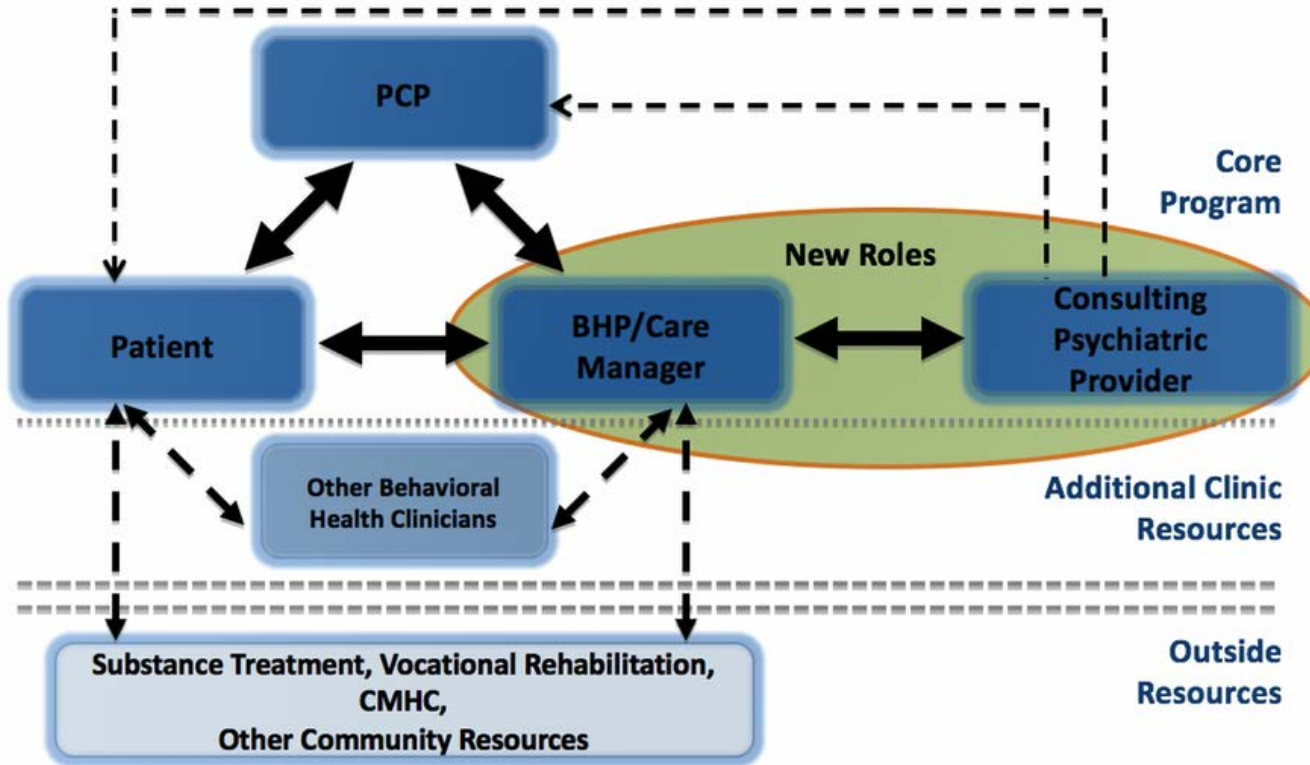
	<b>Behavioral Health Clinician Model</b>	<b>Child Psychiatry Access Programs</b>	<b>Collaborative Care Model</b>
<b>Behavioral Health Team</b>	On Site: Behavioral health clinician: Social Worker, Psychologist, Nurse Practitioner (rarely psychiatrist)	Off-site Psychiatrist, therapist or care coordinator	On Site: Behavioral Health Care Manager  Off/On Site: Psychiatric Consultant
<b>Behavioral and Primary Care Physicians work:</b>	In the same space, within the same facility, sharing health records	In separate facilities, health records are not typically shared	In the same space, within the same facility, sharing health records
<b>Advantages in practice</b>	Allows for collaboration of care, broad reach of the clinic population	Availability of immediacy of consultation, outreach of services (ability to reach more patients)	Measurable and definable, clinicians and teams can be held accountable to outcomes
<b>Challenges in Practice</b>	Cultural changes in clinical practice, defaulting to co- location, limited ability for more structured and intensive behavioral health interventions or care coordination	System issues may limit collaboration, financing of services	Sustainability issues, Limited Studies in pediatric population, financing of services



# The MCPAP clinical process



# Collaborative team approach



# BH toolkit for medical providers

A photograph of a medical professional in a white coat and maroon tie, sitting at a desk. They are holding a pen in their right hand and pointing with their left index finger at a document on the desk. A stethoscope is visible around their neck. The image is slightly blurred to create a sense of depth.

## Behavioral Health Toolkit for Medical Providers.

[More >>](#)

# SAMHSA-HRSA Center for Integrated Health Solutions

**SAMHSA-HRSA Center for Integrated Health Solutions** eSolutions newsletter

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## RESOURCES

### Trauma and Trauma-Informed Approaches

Visit our page for a collection of resources on trauma and related topics. [View here](#)

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#### ABOUT CIHS

## SAMHSA-HRSA Center for Integrated Health Solutions

CIHS promotes the development of integrated primary and behavioral health services to better address the needs of individuals with mental health and substance use conditions, whether seen in behavioral health or primary care provider settings.

> LEARN MORE

#### HOT TOPICS

- Integration Edge
- Health IT
- Wellness
- Confidentiality
- Billing Tools
- Workflow
- Partnerships
- HRSA Supported Safety-Net Providers
- Motivational Interviewing
- Tobacco Cessation
- Screening Tools
- HRSA Supported HIV Providers
- Innovation Communities 2018

# Question

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Why have we not ensured that mental health services be coordinated with physical services?

# Thank you.

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