Behavioral Health-Works

- **Youth Suicide Prevention in Primary Care**

- Office of Mental Health and Substance Abuse Services, Pennsylvania Department of Public Welfare
- Funded by SAMHSA through the Garrett Lee Smith Memorial Act

BH-Works: Four Assumptions

- **Screening for mental health problems allows for early identification of children and adolescent at risk. Results: improve care and reduce cost.**
- **Screening for suicide should take place in the context of screening for general mental health problems.**
- **Introduction of a screening tool requires a broader systems assessment of capacity and resources. On the front end, providers need institutional support and training. On the back end, providers need better access to care.**
- **Technology solutions can help resolve barrier to implementation**

Five Central Aims

 # 1: Create state and local stakeholder groups

 # 2: Increase coordination between medical and behavioral health services

 # 3: Provide suicide “gatekeeper” training

 # 4: Provide web-based screening tool

Aim # 1: Stakeholder Involvement

Stakeholder Involvement

State-Level

Community-Level

State and County Level Stakeholders

State Agencies:

- Dept. of Welfare and Dept. of Health

Medical Associations:

- PA Chapter of the American Academy of Pediatrics, PA Association of Family Physicians, PA Coalition of Nurse Practitioners, PA Association of Community Health Centers

Behavioral Health:

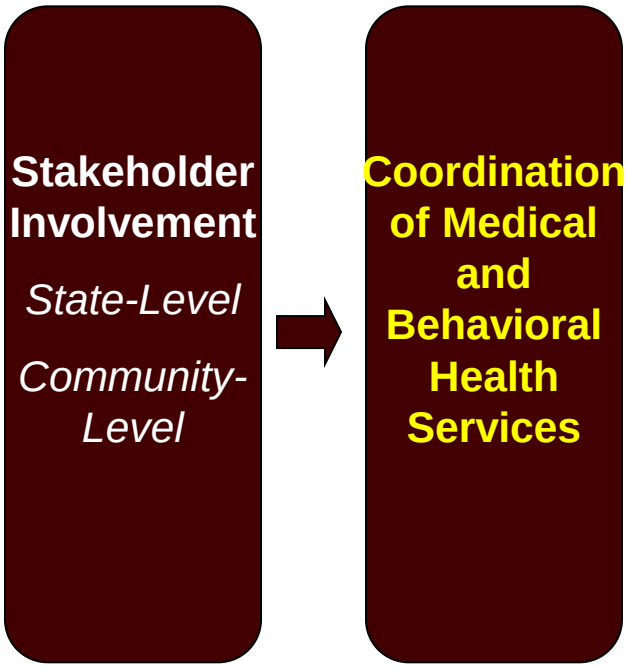
- Pennsylvania Community Providers Associations

Payers:

- Access Plus, Community Care

Local MH/HR directors, county suicide task forces, funded liaison between MH and PCP.

Aim # 2: Coordination of Behavioral Health & Medical Services



State Survey Results (N=667 PCPs)

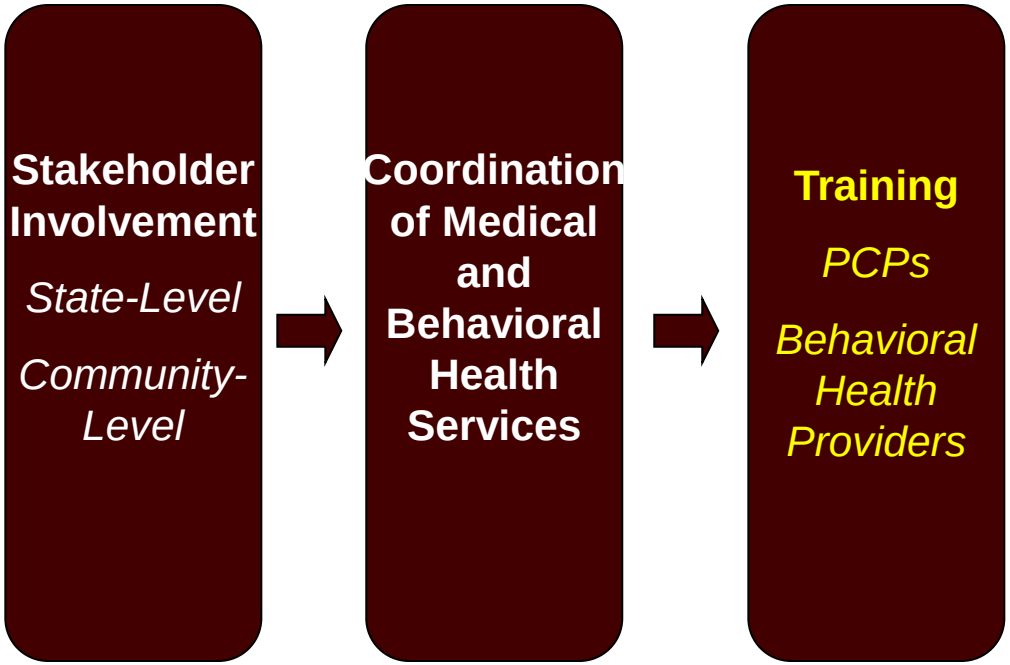
- 78% have referred at least 1 adolescent patient to MH services for suicidal ideation or attempts in the past year.
- Most practices have no in house MH worker
- 45% report they cannot get quick MH appointments for suicidal patients and encounter long waiting lists for non-urgent patients.
- 24% report that the MH provider always or often lets them know if a patient attends services.

Coordination of Services

- Improve the relationship and exchange of information between PCPs and behavioral health providers and agencies

- Educate PCP about the MH system
- Exchange release of information forms
- Invite MH providers to a meeting at the PCP office
- Create directory of mental health providers
- Set up procedures for referral process and feed back
- Send the BHS report to the MH provider.

Aim # 3/4: Gatekeeper Training

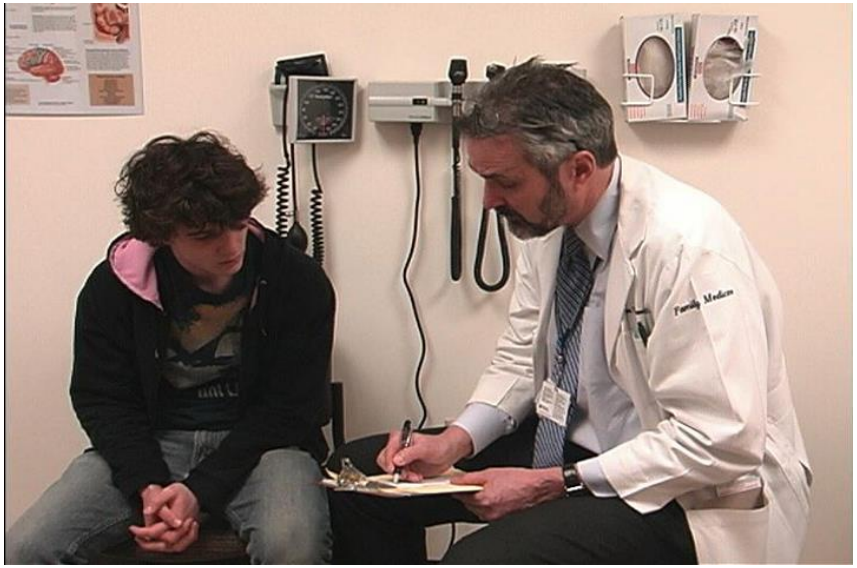


Why Training?

- PCPs get very little training on suicide and mental health
  - Less than 50% of PCPs feel competent in diagnosing depression
- Physician education increases PCPs feelings of capability and competency which leads to increased identification rates of high risk youth
- Physician education is one of only two suicide prevention strategies shown to reduce the suicide rate (Mann et al., 2005)

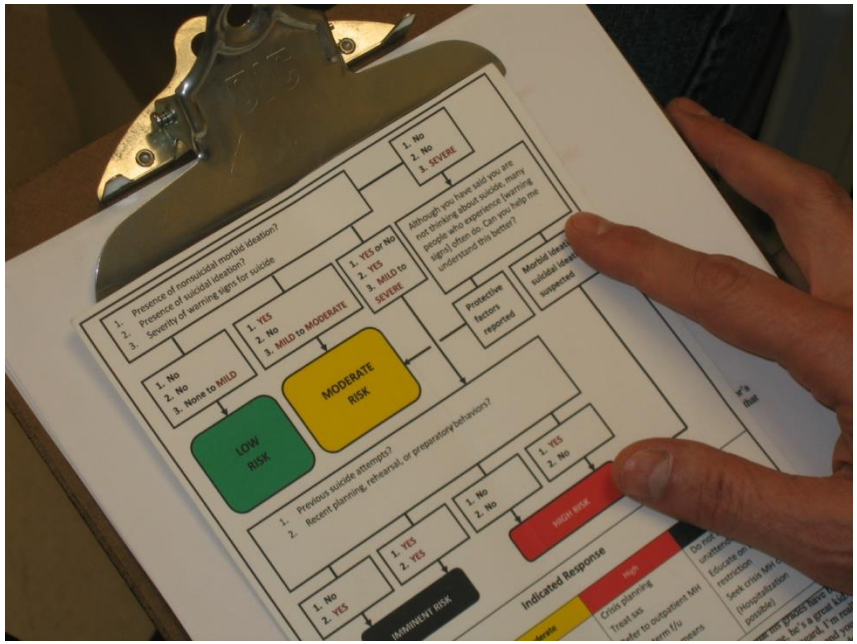
Recognizing and Responding to Suicide Risk in Primary Care (RRSR-PC-Y)

- Developed by the American Association of Suicidology
- Covers material pertinent to PCPs
- Designed as a 90-minute presentation
  - Now available as a 70-minute online presentation
- Includes lecture, video demonstrations of techniques, and printed resources



Content of RRSR-PC-Y

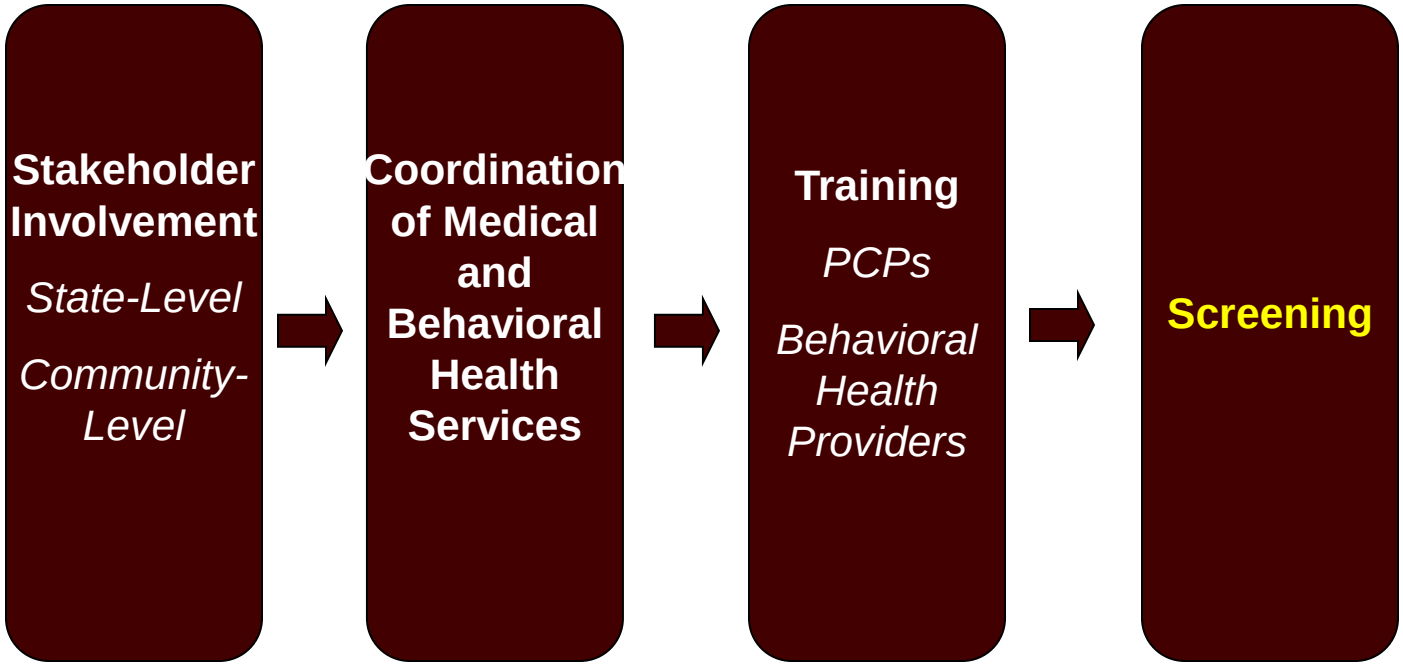
- Suicide risk assessment
- Triage decision making
- Crisis Response Planning
- Interventions for Primary Care
- Documentation



Other Trainings

- State wide webinars
- Brief training on depression, anxiety, trauma, adolescent and parent engagement
- In-services from the local MH providers
- On going consultation regarding complicated cases

Aim # 5: Web-based Screening



Behavioral Health Screen – Primary Care (BHS-PC)

- Screens for risk behavior and psychiatric symptoms
- Clinically validated scales (ages 12-24)
- Standardizes screening questions across patients and provider.
- Covers areas recommended by the American Academy of Pediatrics as best practice guidelines for a well-visit interview
- Takes 7 - 10 minutes
- English, Spanish, Korean, or Mandarin
- Now have Adult version
- Can track changes over time.

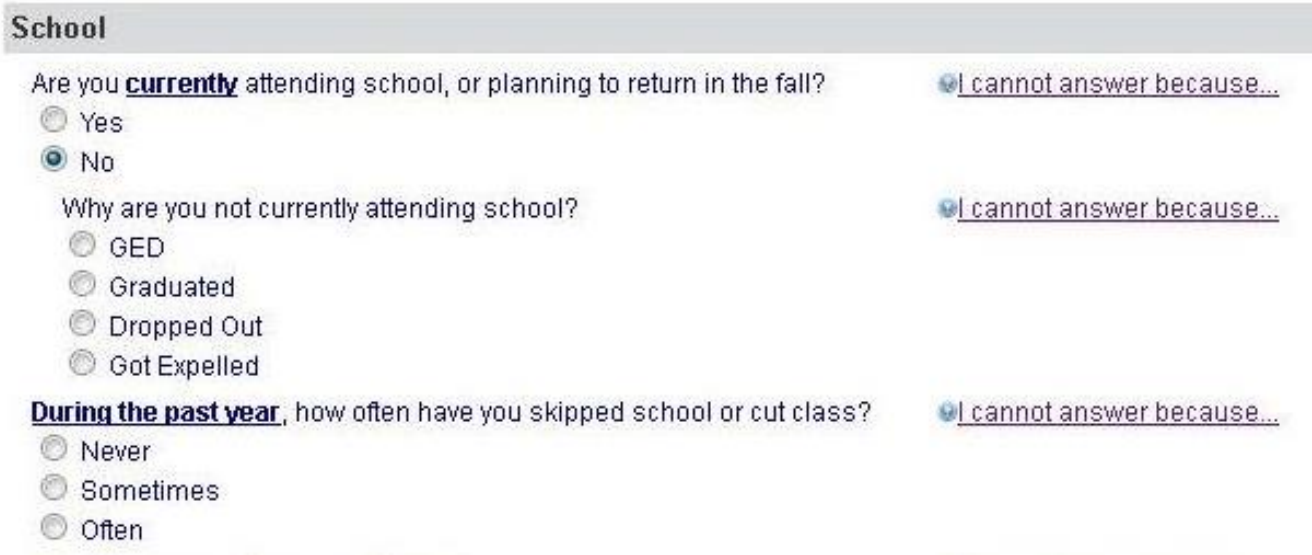
Key Domains of BHS-PC

- Medical
- School
- Family
- Substance Use
- Sexuality
- Nutrition and Eating
- Bullying
- Anxiety
- Depression
- Suicide and Self-Harm
- Psychosis
- Trauma
- Safety and Access to Guns

Web-Based Screening

Benefits

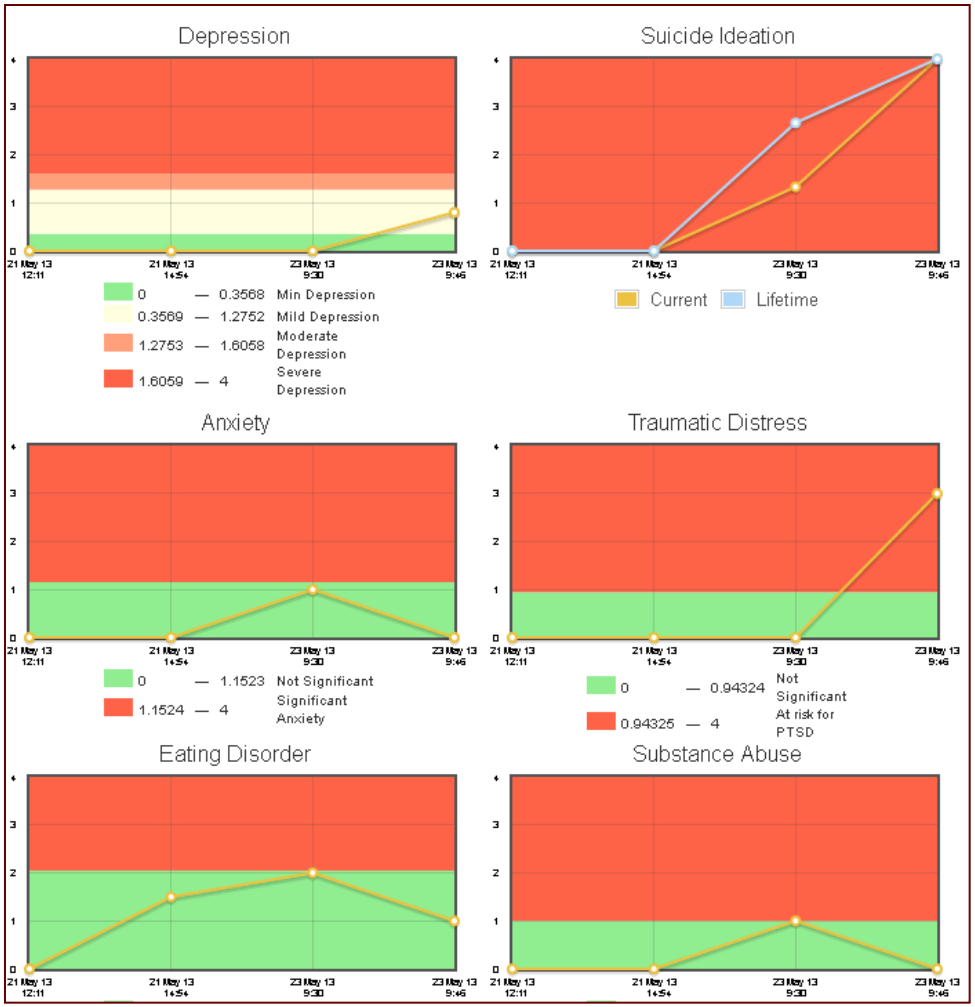
- Adolescents more likely to report on screen than face to face
- Lower cost, greater dissemination and accessibility
- Automatic skips shorten administration
- Automatic scoring eliminates mistakes & saves time
- Instant Report Generation and availability
- Can interface with patient EMR



Tracking Patients Over time

Trending Reports

- Track Patient Over Time
  (up to 12 screens)
- Easily Identify Trends
  (depression, suicide, anxiety, traumatic distress, substance abuse, eating disorders))
- Quality Improvement & Outcomes



Validity of the BHS-PC

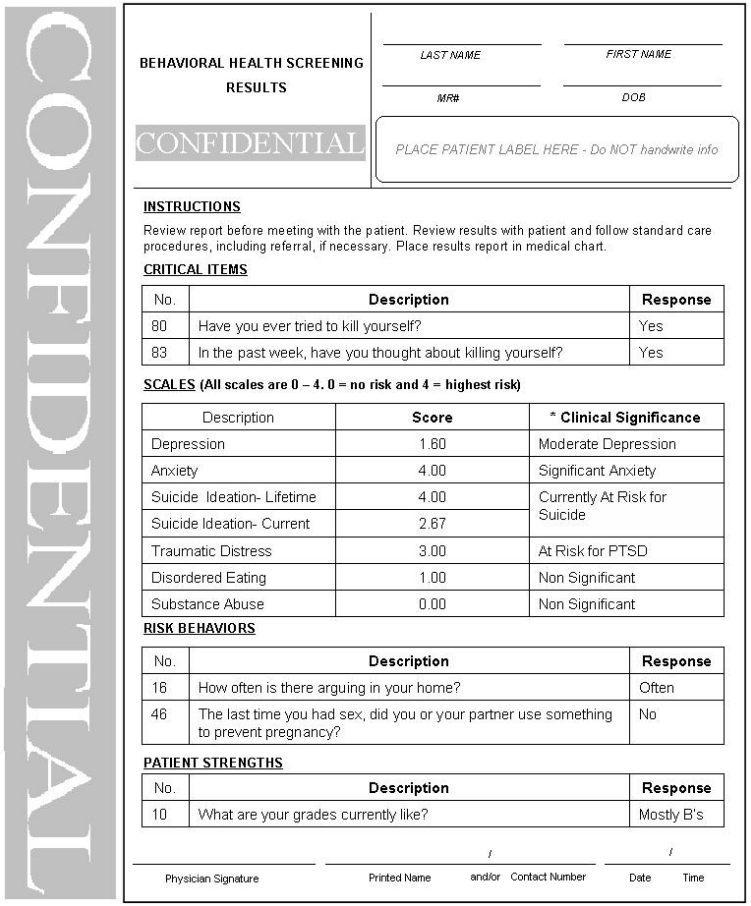
- The psychiatric scales are valid and predictive of risk behaviors (Diamond et al., 2010)
- Strong Internal Consistency
  - Range: 0.75-0.87, $a \geq 0.75$
- Strong Convergent Validity
  - BHS suicide risk and SSI, r = .72, P < .0001
- Strong Divergent Validity
- More than adequate specificity and sensitivity (see table)

SPRC Best Practice Registry

- Currently Under review

Screen Results

- Summary Results Immediately Identify:
  - Critical Items (e.g. Suicidality)
  - Scores and Clinical Significance
  - Risk Behaviors (Substance Abuse)
  - Strengths (Exercise/Work)
- Streamlines Assessment, Referral, & Treatment
- Aggregate Measures for Quality Improvement & Outcomes Reporting



CONFIDENTIAL

BEHAVIORAL HEALTH SCREENING RESULTS

CONFIDENTIAL

LAST NAME FIRST NAME

MR# DOB

PLACE PATIENT LABEL HERE - Do NOT handwrite info

INSTRUCTIONS

Review report before meeting with the patient. Review results with patient and follow standard care procedures, including referral, if necessary. Place results report in medical chart.

CRITICAL ITEMS

No.	Description	Response
80	Have you ever tried to kill yourself?	Yes
83	In the past week, have you thought about killing yourself?	Yes

SCALES (All scales are 0 – 4. 0 = no risk and 4 = highest risk)

Description	Score	* Clinical Significance
Depression	1.60	Moderate Depression
Anxiety	4.00	Significant Anxiety
Suicide Ideation- Lifetime	4.00	Currently At Risk for Suicide
Suicide Ideation- Current	2.67	
Traumatic Distress	3.00	At Risk for PTSD
Disordered Eating	1.00	Non Significant
Substance Abuse	0.00	Non Significant

RISK BEHAVIORS

No.	Description	Response
16	How often is there arguing in your home?	Often
46	The last time you had sex, did you or your partner use something to prevent pregnancy?	No

PATIENT STRENGTHS

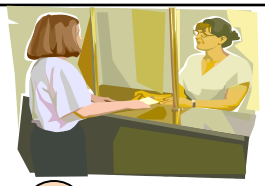
No.	Description	Response
10	What are your grades currently like?	Mostly B's

Physician Signature Printed Name / and/or Contact Number Date / Time

BHS Workflow

Screen all Patients regularly
OR
Patient or Student seen or identified.

BHS is offered



1

2

If BHS is elected, Staff gives orientation.

Logon is created if needed

6

Report and provider's review may be billable

BHS

3

Patient completes BHS in a Private Setting
(< 10 min)

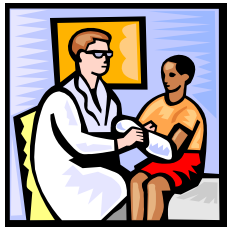
4

Clinical staff prints and adds the report to patient chart or EMR

EMR

5

Provider reviews report with patient and makes referrals if needed



Functionality under development

- Host mental health training videos
- Add other measures into the platform
- Electronic, searchable directory of mental health providers
- Text messages reminders to families to attend treatment and report on attendance
- Establish HIPPA protected communication between providers and family

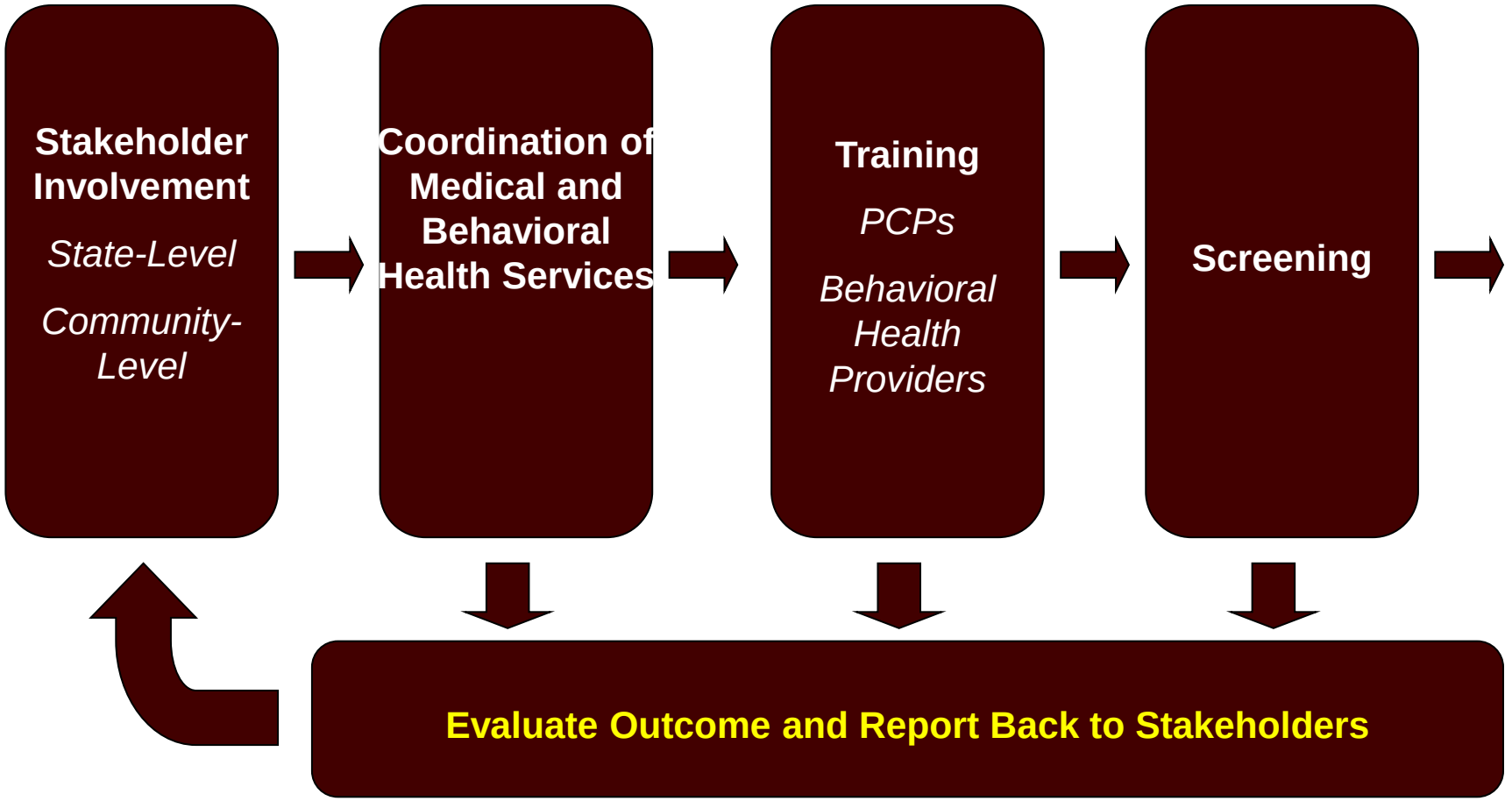
Comparison with Teen Screen

A Side-by-Side Comparison

- Web-based
- Aggregate & Trending Data
- Applicable to Other Settings
- Extra Domains

Area/Feature	Teen Screen	BH-Works
Web-based (i.e. can access on any computer or device)		
Aggregate Data for Report Writing & QI projects		
Automatically Scored Reports (Real-time)		
Ages	11 - 18	12 - 24
Genders	Male, Female	Male, Female
Settings	School, Primary Care	School, Primary Care, Emergency Department, Mental Health Clinics, and Universities
Domains	Depression, Anxiety, Alchohol/Substance Abuse, Suicide, Health Problems	Depression, Anxiety, Substance Abuse, Suicide & Self Harm, Psychosis, Sexuality, Medical, School, Family, Trauma, Nutrition & Eating, Bullying
Languages	English, Spanish	English, Spanish, Mandarin

Progress & Outcomes



Screening Progress To Date

- 12 participating sites (15 additional sites have been newly added)

- 2,381 youth screened

- 284 (12.0%) endorsed having thoughts of killing themselves at some point in their life

- 87 (3.7%) had current ideation

- Of those identified at risk for suicide:
  - 8% were already in treatment
  - 21% refused services
  - 44% accepted their referral and went to services

Other Behavioral Health Concerns

	Total # Screened	Suicide	Depression	Anxiety	Trauma	Eating Disorder	Substance Abuse
Total	2,347	367 (15.6%)	874 (37.2%)	868 (37.0%)	533 (22.7%)	82 (3.5%)	79 (3.4%)

Risk Factors and Gun Access (Total Screened N=1561)

	Access to Guns
Depression n(%)	
Severe (n=295)	30 (10.2)
Anxiety n(%)	
Significant (n=612)	76 (12.4)
Suicide n(%)	
History of Suicide, but not current (n=186)	34 (18.3)
Currently at risk for Suicide (n=66)	8 (12.1)
Traumatic Distress n(%)	
At risk for PTSD (n=378)	44 (11.6)
Substance Abuse n(%)	
At risk for Substance Abuse problem (n=58)	9 (15.5)

Cutters: with and without ideation

	NSSI Only (n = 70)	NSSI + Ideation (n = 77)	NSSI + Attempts (n = 56)
Age	17.59 (3.05)	17.87 (2.77)	18.13 (2.71)
% Female	78.6%	76.6%	69.6%
% White	82.9%	81.6%	69.6%
Current Depression	1.34 (1.05)	2.07 (1.04)[a]	2.11 (1.36)[a]
Current Anxiety	1.93 (1.18)	2.45 (1.02)[a]	2.58 (1.06)[a]
Lifetime Traumatic Stress	.93 (1.18)	1.57 (1.60)[a]	1.90 (1.51)[a]
Substance Abuse	.25 (.65)	.42 (.75)	.66 (1.13)[a]
Eating Disorder	1.00 (.86)	1.16 (.68)	1.08 (.88)

Note. Means and standard deviations (or percentages) are presented; NSSI = non-suicidal self-injury; diagnostic subscale scores are means and range from 0 – 4; [a] significantly different from NSSI Only group at $p < .05$ based on Tukey HSD contrasts.

The Behavioral Health Screen in the Emergency Department at CHOP (7,000)

- A sustainability study
- Nurses were responsible for screening without assistance from research assistance
- 33% penetration for eligible patients
- Increased identification rates by 10%
- Penetration is now at 60%

Identification, Assessment and Referral Pre-Post Pre-Implementation vs. Screened

Fein JA et al *Archives of Pediatric and Adolescent Medicine* 2010;164(12):1112-1117.

Summary and Main Findings

- 92% reported satisfaction with the model.
- Need a point person to help implement changes and screening
- If PCP's increase screening, they will increase identification rates. Then, MH providers will be more interested in coordinating, if not collocating, services.
- Reimbursing the PCP for screening would increase screening behavior.

For more information…

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The psychometrics and utility of BHS and BH-Works are supported by peer-reviewed scientific publications, including:

- Cronholm PF, Barg FK, Pailler ME, Wintersteen MB, Diamond GS, & Fein JA (2010). Healthcare providers' perceptions of computerized adolescent depression screening in the ED. Pediatric Emergency Care, 26, 111-117.
- Diamond GS, Levy SA, Bevans KB, Fein JA, Wintersteen MB, Tien AY, & Creed TA (2010). Development, validation and utility of the Web-based Behavioral Health Screen for adolescents in ambulatory care. Pediatrics, 126(e163-e170).
- Fein JA, Pailler ME, Frances K, Barg FK, Wintersteen MB, Katie Hayes K, Tien AY, & Diamond GS (2010). Feasibility and effects of a Web-based adolescent psychiatric assessment administered by clinical staff in the pediatric emergency department. Archives of Pediatric and Adolescent Medicine.164(12), 1112-1117.
- Wintersteen MB, Diamond GS, & Fein JA (2007). Screening for suicide risk in the pediatric emergency and acute care setting. Current Opinion in Pediatrics, 19(4),398-404
- Bevans KB, Diamond G, Levy S (2012). Screening for adolescents' internalizing symptoms in primary care: item response theory analysis of the behavior health screen depression, anxiety, and suicidal risk scales. Journal of Developmental and Behavioral Pediatrics, 33(4):283-90.