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Protecting Health, Saving Lives—*Millions at a Time*

# **The Utility of Screening Youth for Indicated Interventions to Prevent Emotional, Behavioral, and Substance Abuse Disorders**

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# Overview

Understanding the opportunities for indicated preventive interventions

Selecting the groups

Evidence needed to support value of screening

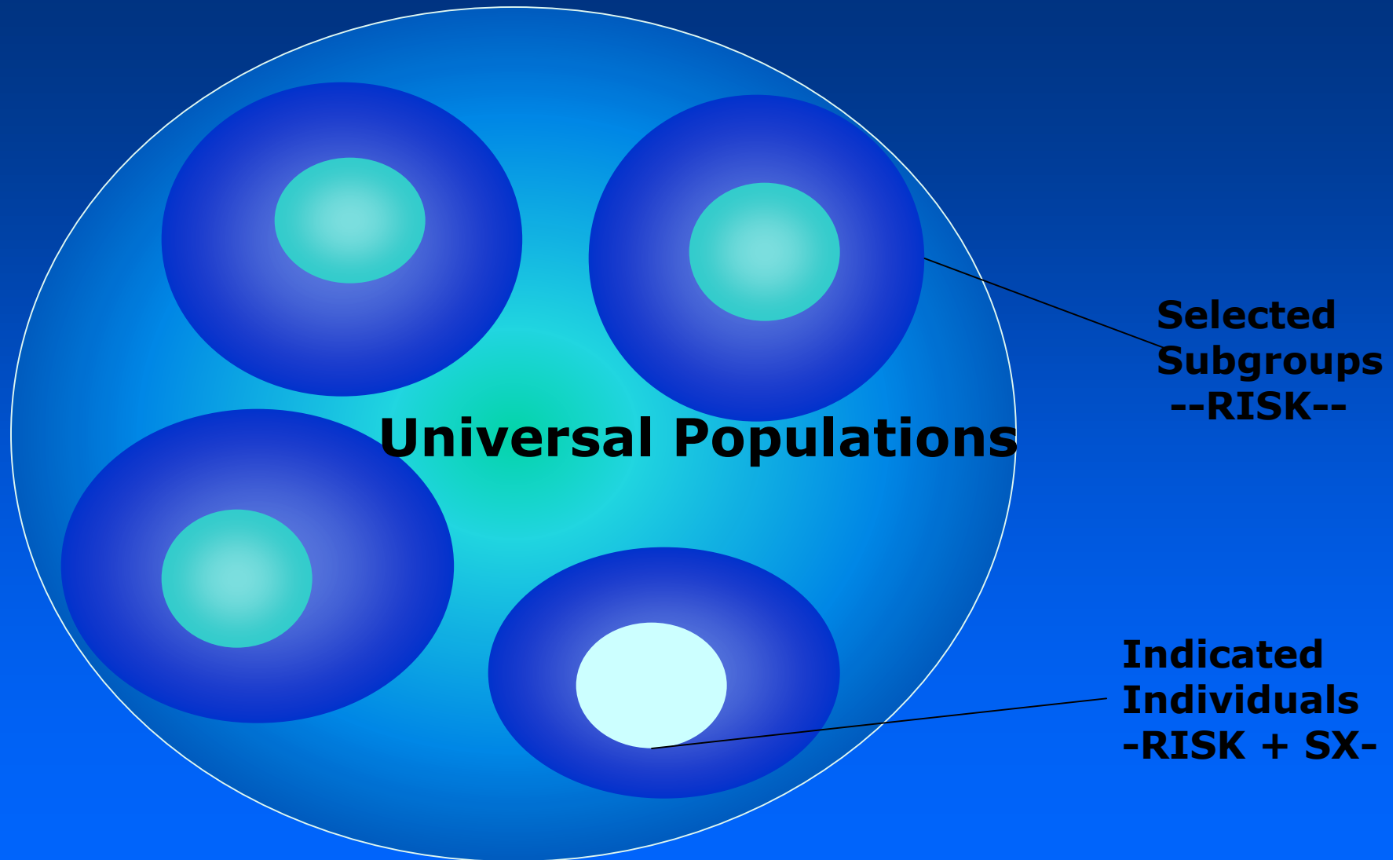
Populations and Settings Reviewed

Needed research

Summary

Implications

# Focus of Indicated Preventive Interventions



## Utility of Screening for Indicated Interventions Depends on....

Evidence that a definable (selected) group is at elevated risk for MH/SA disorders;

Evidence that screening for early signs of disorder produces valid results; is feasible and ethical;

Evidence that indicated preventive interventions are available that prevent, delay, or reduce the severity of MH/SA disorder.

# Populations Identified in this Review

## Youth Exposed To:

Maternal Alcohol Use and Abuse (fetal)

Maternal Depression (fetal & child)

Community Violence

Catastrophic Events

## Youth with Chronic Conditions:

Asthma

Diabetes

## Service Settings:

Welfare/Foster Care

Early Childhood Settings

Emergency Departments

Juvenile Justice

# Evidence for Screening for Indicated Interventions to Prevent Mental Disorder

Exposure	Risk of Symptoms/Dx	Screening	Outcomes
Fetal Alcohol	3	3 - Mom 1 - Infant/Child	3 - Mom 1 - Infant/Child
Fetal Maternal Depression	1.5	3 - Mom 1 - Infant	2 - Mom 1 - Infant
Maternal Depression	3	3 - Mom 2 - Child	3 - Mom 2 - Child
Community Violence	2	1.5	2
Catastrophic Events	3	2	1.5
Asthma	2	2	2
Diabetes	2	2	2

Evidence: 3= Strong; 2= Moderate; 1= Poor/Inconsistent; 0 = Absent

# Evidence for Screening in Selected Settings to Prevent Mental Disorder

Settings	Risk of Symptoms/Dx	Screening	Outcomes
Child Welfare/ Foster Care	3	3	1
Early Childhood Settings	2	2	2
Injured Youth with Substance Use - ED	3	2	1
Juvenile Justice (entry/detained)	1/3	2/3	1/2

Evidence: 3= Strong; 2= Moderate; 1= Poor/Inconsistent; 0 = Absent

# Exposure to alcohol *in utero*

Screening pregnant women has been previously recommended; we contrast for infants' exposure

Association with cognitive delay and MH/SA symptoms (disorder) infants/children

Very strong evidence of association

Dependent on level of exposure – FAS – FASD – FAE

Even 1 drink/week in 1<sup>st</sup> trimester -- ↑ E/B problems

## Screening

Strong evidence can screen pregnant women

Inconsistent evidence can screen infants – mild exp.

Strong evidence for identifying FAS markers

## Intervention outcomes

Strong evidence can reduce mom's drinking

Weak evidence that can improve infants' outcomes



# Exposure to Maternal Depression *in utero* and in Childhood

## Association

Fetal exposure - evidence is inconsistent

Childhood exposure - strong evidence of 2-6x ↑

## Screening during pregnancy and childhood

Strong evidence for screening moms

## Screening infants/children

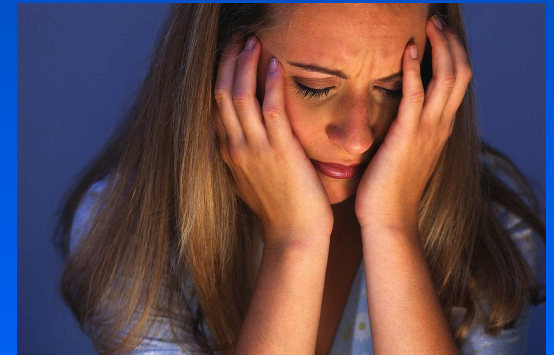
Inconsistent evidence for screening infants

Good-Strong evidence for screening children

## Intervention outcomes

Strong evidence can reduce depression in 50-70% of moms

Weak – Good evidence that can improve child outcomes



# Exposure to Community Violence

Association of children's exposure to violence outside home with MH/SA symptoms (disorder)

Strong evidence of negative effects (PTSD sx)

Rates dependent on trauma type, level of exposure

More common for girls and those who are younger

Family functioning & maternal MH predictive of effects

## Screening

Good evidence can identify youth with sx

Youth must self report

Modest evidence for validity of screening tools

## Intervention outcomes

Good evidence youth outcomes can be improved

Poor evidence of feasibility of large-scale interventions

# Exposure to Catastrophic Events

## Association with MH/SA symptoms (disorder)

Strong evidence of negative effects (PTSD sx)

Rates dependent on trauma type, level of exposure

Pre-event mental health & family functioning predictive of effects

## Screening

Good evidence can identify youth w/ post-trauma sx

Youth self-report needed

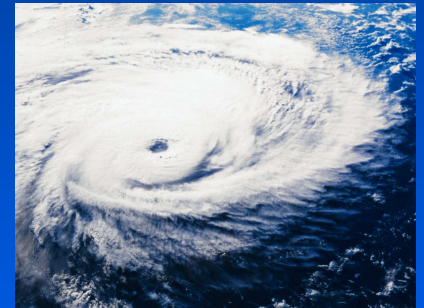
Modest evidence for validity of screening tools

## Intervention outcomes

Good evidence youth outcomes can be improved

Poor evidence of feasibility of large-scale interventions

But support for intervention often likely



# Asthma

## Association

Good evidence for elevated sx and risk of disorder, mainly anxiety  
Family factors predictive



## Screening

Good evidence – standard symptom checklists

## Intervention outcomes

Good evidence for indicated interventions  
Major need for “packaging” and dissemination

# Diabetes

## Association

Good evidence for elevated sx and risk for disorder, mainly eating disorders

## Screening

Modest evidence for screening

## Intervention outcomes

Poor evidence for indicated interventions



# Child Welfare/Foster Care

## Association

Very strong evidence of high rates of MH/SA symptoms and disorders

## Screening

Often mandatory and should be

Quality of instruments actually used often less adequate than those available

## Intervention outcomes

Individually based

Often no intervention delivered

Evidence is poor to good that trajectories can be changed

# Early Childhood Settings

## Association with MH/SA symptoms (disorder)

Good evidence that E/B problem rates in early childhood comparable to that of middle childhood

Head Start children at elevated risk for E/B problems and language problems

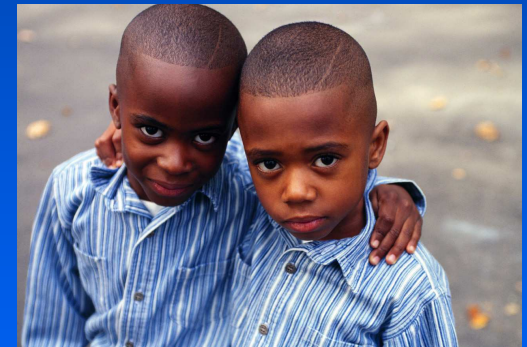
Predictors of disorder: Aggression; maternal/family factors

## Screening

Poor – fair evidence

Mandated in Head Start and EPSDT

? Psychometrics of instruments used



## Intervention outcomes

Poor evidence from screening studies; better in general

Need for multi-faceted interventions

# Youth with Injuries and Substance Use Emergency Departments

## Association with MH/SA symptoms (disorder)

Strong evidence for elevated SA problems

Especially for youth with self-inflicted injuries

## Screening

### Measurement challenges

Fair to Good evidence for self-reports of alcohol use

Poor evidence for Blood Alcohol Content in ED

Poor evidence for self-reports of illicit drug use



## Intervention outcomes

Little intervention science for youth in ED's

More than half of referrals to MH are not completed

Fair evidence that SU can be reduced in high risk youth

# Youth Entering or Detained in Juvenile Justice Settings

## Association with MH/SA symptoms (disorder)

Strong evidence for detained populations

At entry, weak evidence for MH problems, high academic problems

## Screening

Measurement challenges

## Outcomes

Evidence is poor that indicated interventions work

May have potential for 'critical period' intervention

# Summary

Strong evidence of the **need** for preventive interventions in these selected populations

Limited availability of efficacious interventions for these selected groups or settings

Family functioning & resources always a factor

Outcomes of interventions promising

- Youth at risk because of maternal depression

- Exposed groups with post-traumatic stress sx

Compelling opportunities in

- Emergency Departments for injured youth

- Juvenile Justice at entry into the system

- Head Start and EPSDT settings

# Summary

Real-world effectiveness and feasibility of available interventions not well understood

Virtually all indicated interventions must be delivered in 'someone else's' settings

Little attention to system factors and policy issues in the current research literature

# Ways Research Can Improve the Scientific Basis for Screening for Indicated Interventions

## Strengthen the predictive models

- Linkage of symptoms to subsequent disorder

  - 'Natural course' research

- Include other predictive factors, family factors

  - Protective as well as risk factors

## Enhance research on the mediators

## Longitudinal research on intervention outcomes

# Ways Research Can Improve Screening

## Screening tools

- Develop screening tools to assess multiple predictors

- Refine and continue measurement development

  - Validation in diverse samples

  - Self-report screens for young school age children

- Strengthen science base for meaning of scores

  - Interpreting scores when instruments administered repeatedly

## Process of screening

- Build the implementation science, feasibility and acceptability, and reimbursement

- Increase the evidence for the ethics of screening

- Require assessment of untoward or iatrogenic effects

# Conclusions and Implications

Major opportunities for the development of science and policy around screening and intervening with selected groups at risk of mental health or substance use disorders

Substantial need for longitudinal preventive intervention research in selected populations to understand natural and improved outcome trajectories

Family-focused and multi-system interventions appear critical to improve trajectories for selected youth, who have multiple, complex problems