Addressing Suicide Prevention in 10-14 Year Olds

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### Leading causes of death for selected age groups – United States, 2016

<table>
<thead>
<tr>
<th>Rank</th>
<th>10-14 years</th>
<th>15-19 years</th>
<th>20-29 years</th>
<th>30-39 years</th>
<th>40-49 years</th>
<th>50-59 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unintentional Injuries</td>
<td>Unintentional Injuries</td>
<td>Unintentional Injuries</td>
<td>Unintentional Injuries</td>
<td>Unintentional Injuries</td>
<td>Malignant Neoplasms</td>
</tr>
<tr>
<td>2</td>
<td><strong>Suicide</strong></td>
<td><strong>Suicide</strong></td>
<td><strong>Suicide</strong></td>
<td><strong>Suicide</strong></td>
<td>Malignant Neoplasms</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>3</td>
<td>Malignant Neoplasms</td>
<td>Homicide</td>
<td>Homicide</td>
<td>Malignant Neoplasms</td>
<td>Heart Disease</td>
<td>Unintentional Injuries</td>
</tr>
<tr>
<td>4</td>
<td>Homicide</td>
<td>Malignant Neoplasms</td>
<td>Malignant Neoplasms</td>
<td>Heart Disease</td>
<td><strong>Suicide</strong></td>
<td>Liver Disease</td>
</tr>
<tr>
<td>5</td>
<td>Congenital Malformations</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
<td>Homicide</td>
<td>Liver Disease</td>
<td>Chronic Lower Respiratory Ds</td>
</tr>
<tr>
<td>6</td>
<td>Heart Disease</td>
<td>Congenital Malformations</td>
<td>Diabetes Mellitus</td>
<td>Liver Disease</td>
<td>Diabetes Mellitus</td>
<td>Diabetes Mellitus</td>
</tr>
<tr>
<td>7</td>
<td>Chronic Lower Respiratory Ds</td>
<td>Chronic Lower Respiratory Ds</td>
<td>Congenital Malformations</td>
<td>Diabetes Mellitus</td>
<td>Cerebro-Vascular</td>
<td><strong>Suicide</strong></td>
</tr>
<tr>
<td>8</td>
<td>Cerebro-Vascular</td>
<td>Cerebro-Vascular</td>
<td>Complicated pregnancy</td>
<td>Cerebro-Vascular</td>
<td>Homicide</td>
<td>Cerebro-Vascular</td>
</tr>
</tbody>
</table>

Source: CDC vital statistics
Suicide rates among all persons by age and sex--United States, 2015

Source: CDC vital statistics
Overview

- Key findings on increasing suicide rates among 10-14 year olds
- Key findings on developmental context
- Evidence-based intervention strategies for 10-14 year olds
Increase in suicide among 10-14 year olds
The magnitude of the increases vary by age

Bridge et al., 2015

In black boys, the suicide rate increased between 1993 to 1997 and 2008 to 2012 (incidence rate ratio [IRR] = 1.26; 95% CI, 1.07-1.47), whereas suicide rates in white boys decreased during this period (IRR = 0.85; 95% CI, 0.78-0.93). In 1993 to 1997, the IRR of suicide between black and white boys was 0.91 (95% CI, 0.57-1.47). In 2008 to 2012, the IRR of suicide between black and white boys was 2.65 (95% CI, 1.77-3.96).
Developmental Context

• Rapid biological, social, and psychological development ages 10-14 could heighten the risk for anxiety, depression, and other psychological symptoms (Reardon et al., 2009).

• First onset of mental disorders usually occur in childhood or early adolescence (Kessler et al., 2007).
Developmental Context

Ability to adaptively cope with major stressors

• Traumatic stress exposure and family contextual factors (Brent et al., 1999; Wagner et al., 1997)

• Young individuals can be more vulnerable to contagion (Insel & Gould, 2008)
  – Evidence has accumulated to support the idea that suicidal behavior is “contagious” in that it can be transmitted, directly or indirectly, from one person to another (Gould, 1990)
Developmental Context

Impulsivity and decision making

• The prefrontal cortex, implicated in higher order executive functions, emotional control, impulsivity, and decision making, continues to mature into the mid-20s (Gogtay et al., 2004; Steinberg, 2008).

• Brief stress–suicide intervals (Groholt et al., 1998)
  – Restricting access to suicide means, including means-restriction counseling for parents (Bridge et al 2006) is important for suicide prevention
Fig. 1. Risk factors for completed suicide in children and young adolescents aged 14 and under.
Evidence-based Interventions strategies for 10-14 year olds
Which strategies are most effective for preventing suicide?

• Comprehensive, multicomponent approaches
• Embedded in service settings, sustained
• Most SP programs focus on identifying those at risk and intervening
  – Selected, Indicated
  – Population-based, universal
Universal & Selective
- Educational Gatekeeper Training
- Screening
- Skill Building
- Means Restriction
- Media Guidelines

Indicated
Short Term
- Postcard ("Caring letter") Intervention
- Motivational Interviewing
- Safety Planning

Long Term
- CBT
- DBT
High-risk Approach

- Mortality threshold
- Identify and treat high-risk
Population-based Approach

Suicide risk

Mortality threshold

Population

Low

High

Move population risk

SAFER • HEALTHIER • PEOPLE™
Effective Programs - Universal

• **Signs of Suicide**  (Schilling et al., 2014)
  - Education for students and teachers, depression screening, postvention guidelines, customizable posters and wallet cards
  - 3 months after intervention students had improved knowledge and, among those with pre-test ideation, students in the SOS group had fewer attempts than control group

• **Youth Aware Mental Health**  (Wasserman et al., 2016)
Saving and Empowering Young Lives in Europe (SEYLE; Wasserman et al., 2014)

EU Study of 168 schools, 11,100 students
Randomized by school to one of 4 interventions

- QPR– Gatekeeper training
- Youth Aware of Mental Health (YAM)– interactive training on recognition and coping with depression and suicidal ideation
- Screening and referral
- Control

Assessed for ideation and attempt at 3 and 12 months post intervention
Suicidal ideation and attempts at 3 and 12 months post-intervention (%)*

• Attempts

• Ideation

*SELYE study: Wasserman et al., 2014
Effective Programs - Selective

- **Family Bereavement Program** (FBP; Sandler et al., 2016)
  - Multicomponent program for parentally bereaved children and adolescents ages 8-16 (mean age 11), 12 group sessions
  - Targets depression, grief, externalizing behaviors, parental depression
  - Reduced suicide ideation and attempts at 6 and 15 year FU

- **HOPE Family Program** (Lynn et al., 2014)
  - Families living in shelters in New York City, family-strengthening approach including family communication, family decision-making, parent leadership and supervision, and youth coping and problem solving
  - Reduced suicidal ideation in youth ages 11-14
Effective Programs - Indicated

• Multisystemic Therapy (MST; Huey et al., 2004)
  - Intensive family and community-based treatment. 3-5 months, home-based
  - Mean age 12.9
  - Originally designed to target antisocial behavior/violence but impacts substance abuse, family difficulties, behavior problems, psychiatric distress

• The SAFETY Program (Asarnow et al., 2015)
  - Cognitive-Behavioral Family Treatment for Adolescent Suicide Attempters recruited from Emergency Department (ED)
  - 12 weeks starting in ED and continuing
  - 3-month posttreatment assessment, there were statistically significant improvements on measures of suicidal behavior, hopelessness, youth and parent depression, and youth social adjustment
Which strategies are most effective for preventing suicide?

- No single strategy clearly stands above the others
- Comprehensive, multicomponent approaches
- Embedded in service settings, sustained
Needs to address this domain

• Widespread dissemination of these EBPs has not been achieved
  • Infrastructure/mechanisms to support and sustain implementation?
• High quality implementation has not been achieved
  • Systems are needed to provide feedback on implementation fidelity and outcomes
  • Fidelity = faithfully and fully replicating the program model
• Without high fidelity, desired outcomes may not be achieved