



ICRC-S

Injury Control Research Center for Suicide Prevention



The Intersection of Suicide Research and Public Health Practice: Youth Suicide Prevention

Presenters: Peter Wyman, Ph.D., Jarrod Hindman, M.S.
Moderator: Adam Chu, M.P.H.

Audio will begin at 2:00PM ET

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Meeting Orientation

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Polls



Our Speakers



Peter Wyman, Ph.D.



Jarrod Hindman, M.S.



**Moderator:
Adam Chu, M.P.H.**

Youth Suicide: A Brief Review of Risk, Protective Factors and Prevention Strategies

Peter A. Wyman, PhD
University of Rochester



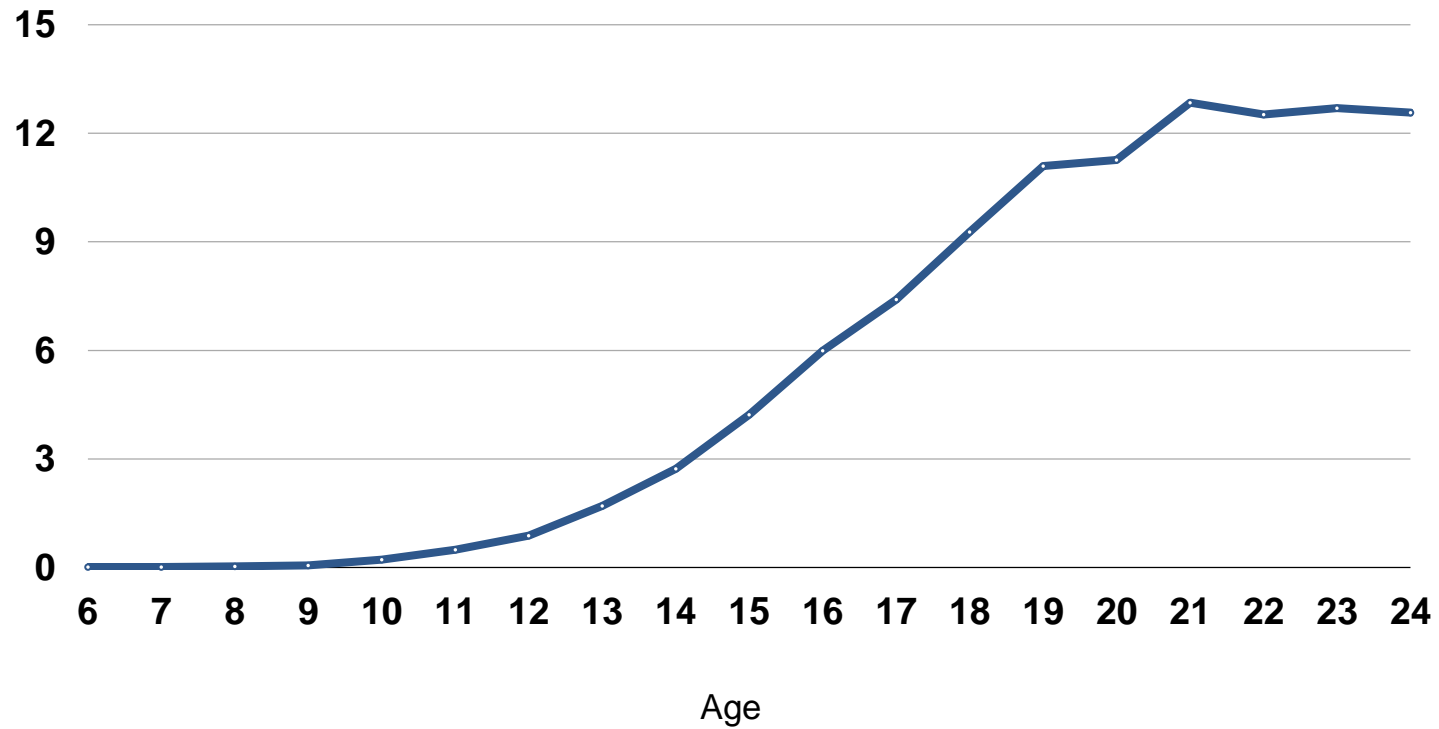
I. Youth Suicide in Perspective

- 34,000 Suicides Per Year in the US
- 4,400 Deaths from ages 10 – 24

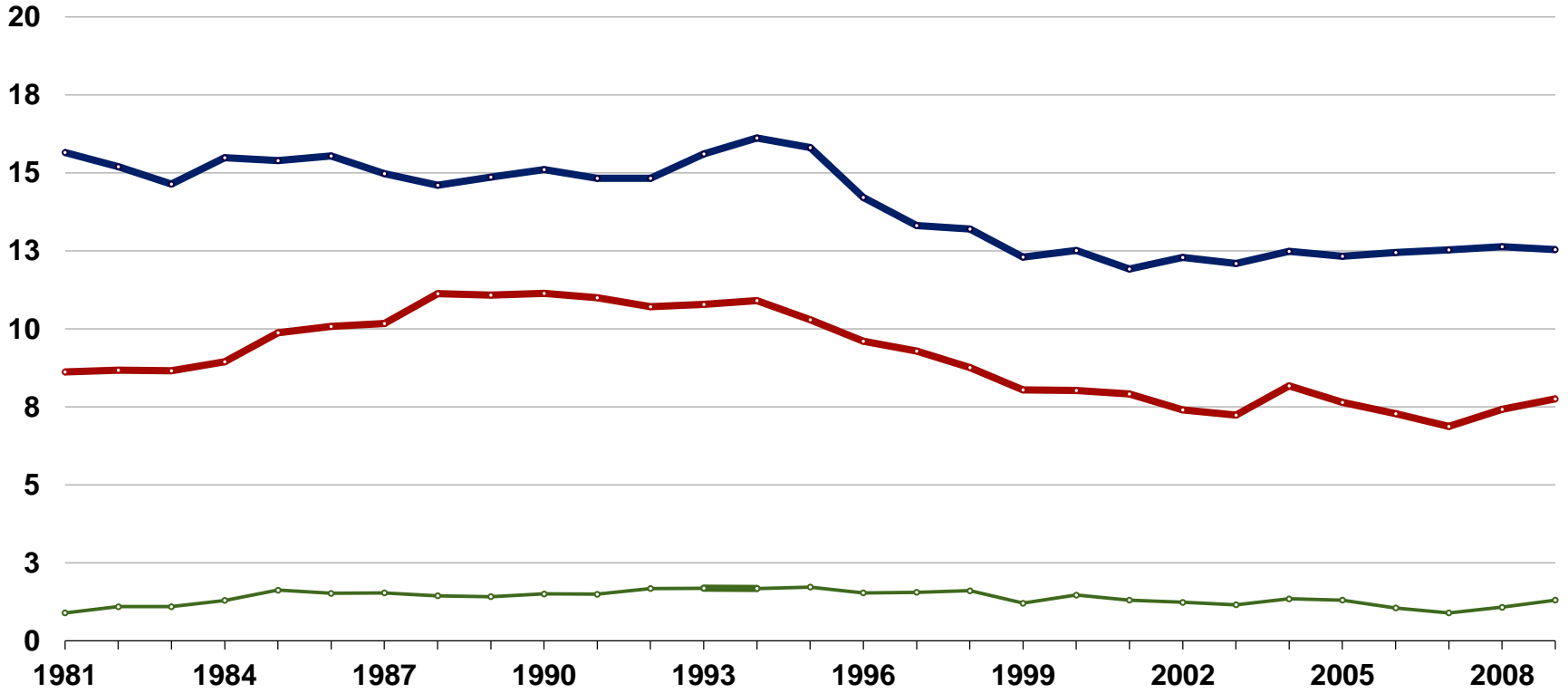
Public health importance most apparent when take into account suicidal behavior

- ~ 1,000,000 million adolescents attempt suicide each year (7.8% on YRBS in 2011)
- Estimated 200 suicide attempts for each death during adolescence (CDC).
- ~ 2.4% of youth have a serious enough attempt to have medical attention (YRBS 2011)
- Similar levels in young adults, but less extensive surveillance

Youth Suicide Rates by Age (1999-2009)



Youth Suicide Rates 1981-2009



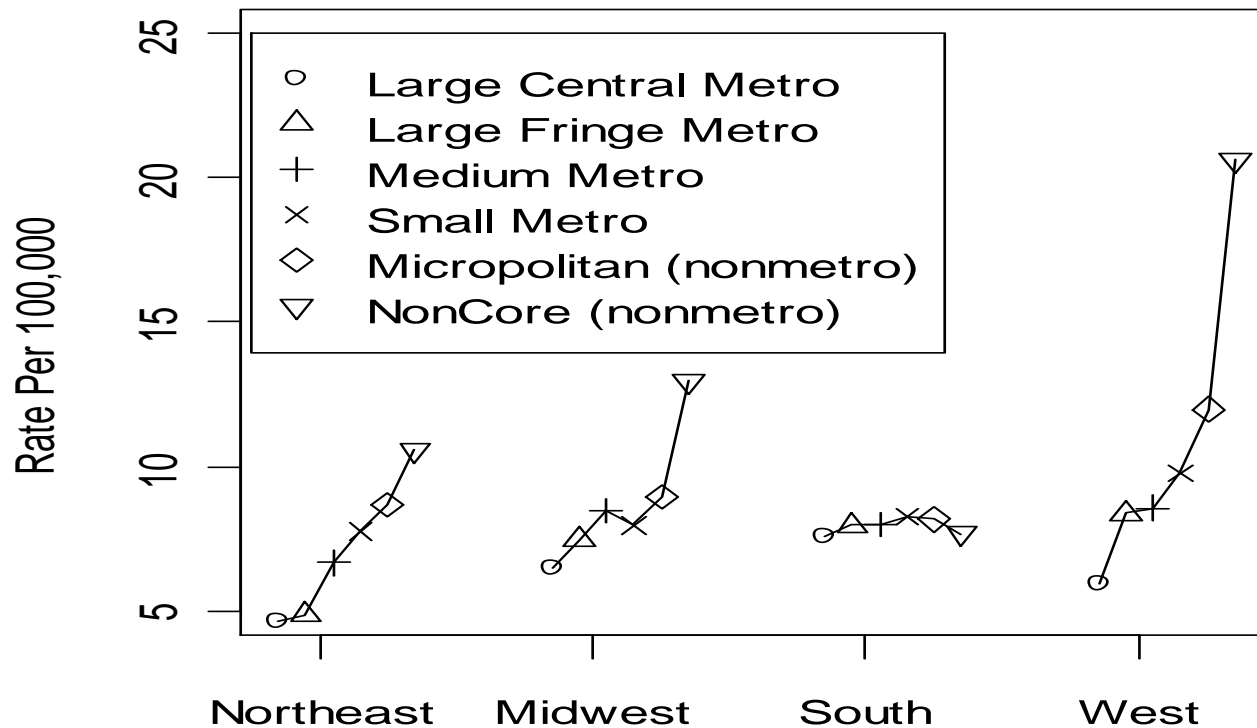
—○— 10-14 yrs

—●— 15-19 yrs

—●— 20-24 yrs

Adolescent Suicides by Region and Rurality

**Suicide Rate for 15-19 Year Olds
from 1999-2003 by Region and Rurality**



Adolescent Suicide Differences

- **Rates vary by region/culture/sex/time**
 - 2-5 times higher in rural areas (Brown, Wyman 2007)
 - Young Native American males highest rates (CDC)
 - Males account for 84% of suicide deaths in adolescents/young adults
 - Females 2-4 times more likely to attempt suicide
 - Methods: firearms most deaths. Trends vary: in 2000s – increase in strangulation as means of suicide

Context of person/place/time influences suicide:

Cultural heritage, local norms, access to means

II. Who is At-Risk for Suicide?

Likelihood of dying by suicide is influenced by many factors, including genetic, biological, psychological and social/cultural influences

From prevention perspective:

- **High Risk Populations**

- Defined by ‘individual’ risk factors
- Focus on services

- **Lower Risk Populations**

- Focus on changing group, culture
- May reduce likelihood of low-risk becoming high-risk youth

Which groups are at very high risk?

- Youth with Mental Health, Substance Use Disorders (Shaffer et al., 1993; Gould et al., 2003, Fleischmann et al., 2005)
- 88% of suicides had a diagnosis in autopsy studies
- Other evidence that youth suicide more impulsive and shorter history of mental health problems (Brown et al. 2007)

	Increased Risk Ratio	Percent of All Suicides	Potential PoP Reductions
Major Depressive Disorder	25	25%	<5-25%
Substance Abuse/Dependence	7	40%	<8-40%
Conduct Disorder	8	20%	<4-20%
Psychosis	15- ?	5%	<1-5%

Other Individual Risk Factors

- **Adverse Life Events** (Felitti et al., 1998)
 - Sexual assault
 - Abuse/maltreatment history
- **Pathways from Adverse Events to Suicide:**
 - ‘Triggers’ for suicidal crisis
 - Relationship breakups in adolescents/young adults
 - Alter developmental trajectories
 - Evidence that early adversity alters ‘gene expression’ to change long term emotional, cognitive, behavioral phenotypes (Turecki, 2012) – impulsivity, emotional reactivity

Social-Ecological Risk Factors

Suicidal Behavior in Social Network

- Teens with friends who made attempts at higher risk for suicide attempts (Bearman & Moody 2004)
- Risk of suicide after suicide death in one's social sphere 2-4 times higher in 15 – 19 year olds than other groups, presumably through 'acceptability' of suicide (Gould 1990)

Maladaptive Coping Norms

- Suicidal youth more likely to endorse substance use, suicide as means to address problems; connected to others with similar norms (Gould, 2001; Wyman 2008)

Bullying/Harrassment

- Suicidal ideation and risk for suicide attempts higher among both bullies and victims of bullying (bullies frequently are bullied (Kim 2005; Klomek 2007)
- LGB youth more likely to attempt suicide – linked to harrassment and adverse social environment (Hatzenbuehler, 2011)

Social-Ecological Protective Factors

Positive Peer Relationships

- Being less isolated from peer groups (particularly for girls) and in schools with more dense social ties (particularly for boys) lower risk for suicide attempts (Bearman & Moody 2004)

Caring Relationships with Adults

- Teens with positive connection to their schools and perceived closeness to parents are at lower risk for suicide attempts (Borowsky 2001)
- Associations linking social connectedness with decreased suicidal behaviors found with Latino (Guiao & Esparza, 1995) and American Indian/Alaska Native youth (Borowsky et al., 1999)

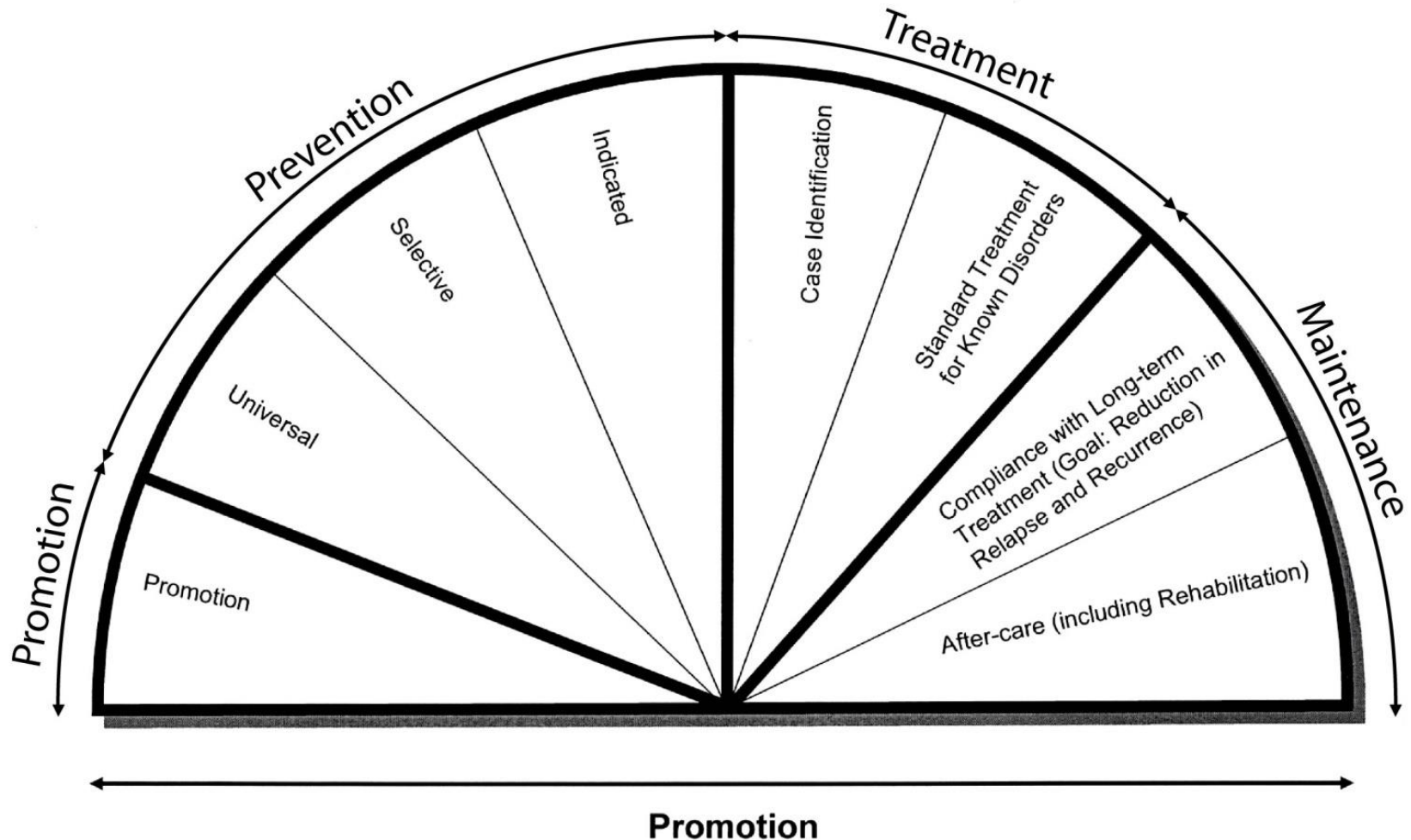
‘Connectedness’ enhances psychological well-being, positive emotional states, can promote transmission of adaptive norms and practices, and interpersonal responsiveness (Whitlock, Wyman 2012)

Laws/Policies that Support Means Restriction

- Some evidence that suicide rates higher in regions with fewer restrictions to gun ownership

III. Treatment-Promotion Continuum Where is Suicide Prevention?

National Academy Sciences 2009



Enhance Treatments to Reduce Suicides

- **Cognitive-Behavior Therapy for Suicide Prevention (CBT-SP)- Promising** (Stanley et al., 2009)
- **Therapies using Dialectical Behavior Therapy – Promising** (Katz et al, 2004)
- **Treatments that include strengthening adolescent-parent attachment relationship**
Attachment-Based Family Therapy promising (Diamond et al., 2010)

Important to increase quality of treatment for highest-risk youth.

Will be challenging to show impact on reducing suicide deaths – a challenge of suicide prevention research

Current Focus of Youth Suicide Prevention: 'Case-Identification' - Secondary Prevention

Primary focus: Identify and refer suicidal or high risk youth for services, addresses; few suicidal youth receiving services

- **Screening school populations** – for depression, substance use, suicidality (Shaffer, 1993)
 - Fairly accurate in identifying high-risk youth
 - Safe to screen (Gould et al., 2005)
 - Logistic challenges – parent consent; miss youth who enter high-risk period
- **Gatekeeper Training** –adult training to recognize/respond to warning signs
 - Increases knowledge of warning signs, attitudes (King, Smith 2000; Wyman et al., 2008)
 - Minimal evidence that more suicidal youth are identified (Wyman et al., 2008)

None of these approaches have shown to reduce suicide in the population

Gatekeeper Training Approaches Not Likely to Be Sufficient to Lower Suicide Rates

Gatekeeper training of all secondary school staff (2004 – 06) Cobb County (Georgia)

- Multilevel QPR Gatekeeper Training
- **32 schools; 52,000 students per year; randomized**

Training increased knowledge, attitudes of staff

* Detecting suicidal student required adults actively engaged with distressed students

* Suicidal students 1/2 as likely to engage adults for help or believe their peers would support help-seeking

Wyman, Brown et al., (2008). Journal Consulting Clinical Psychology

**No effects of QPR on increasing detection of suicidal students in high schools; may have modest effect in high schools*

Even in the most Optimistic Case, Strategies Limited to High Risk Alone Unlikely to Produce Dramatic Reductions in Suicide Rates

Treatment Won't Address Needs Of Many Youth:

- Mental health services not accessible or acceptable for many adolescents (particularly rural, tribal)
 - Limited ability to identify which at-risk individuals will die by suicide
 - A portion (unknown) of suicide attempts/deaths are due to impulsive response to crises and problems not readily identifiable beforehand
 - **In history of public health, few problems solved by focusing solely on the end-point disorder**
- Important to address high-risk youth, but not the only strategy that is needed

Skills and Hybrid Programs: Selective to Universal

Signs of Suicide (SOS)

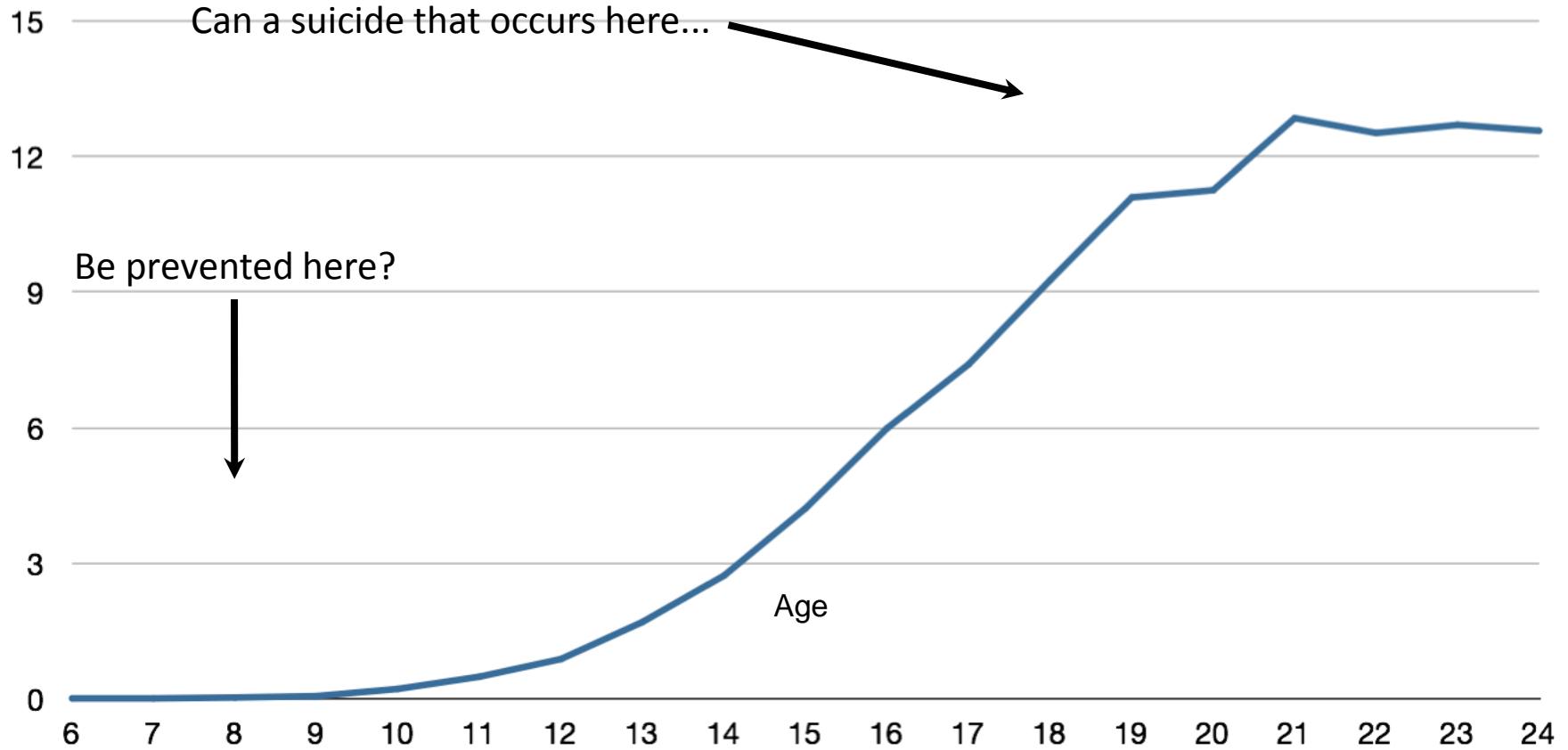
- Self-screening; depression is treatable; Getting help for self/others
- Two evaluations – classrooms (health classes) assigned to SOS or wait-list for later curriculum (post-only assessments)
 - **After 3 months – reduce self-reported suicide attempts in SOS group**
 - Not due to self-reported increased help-seeking

■ Other Programs

- **Zuni American Indian Life Skills** - Coping skills tailored to culture/heritage; Decreased hopelessness (Laframboise et al., 2008)
- **Reconnecting Youth** –youth at risk for school drop out; increased school performance, decreased drug involvement (Eggert 1995) – not replicated
- **Sources of Strength** - trained peer leaders increased school-wide (universal) help-seeking norms (LoMurray, 2005; Wyman 2010)

Can Suicide Prevention Paradigm be Expanded to Include 'Upstream' Approaches?

Suicide Rate by Age (1999-2009)



Evidence that Strengthening Early-Life Self-Regulation Reduces Suicidal Behavior: *Good Behavior Game*

- **Good Behavior Game (GBG)** implemented in 1st-2nd grade classrooms in urban, low income schools (Baltimore) – training classroom teachers to promote positive classroom behaviors through peer group reinforcement (Kellam et al., 2008)
- Follow-up of GBG classrooms vs. controls at ages 19 – 21:
 - **Reduced by one-half rates of suicidal ideation and attempts occurring by ages 19-21 based on self-reports** (Wilcox et al., 2008)
 - GBG reduced substance use, antisocial behavior, high-risk sex behaviors (Kellam et al., 2008),
 - Greatest impact of GBG on behavior for children with highest aggressive-disruptive behavior in grade 1
 - In a second cohort – with less rigorous implementation, Impact of GBG was non-significant but directionally similar in reducing suicidal behavior. Evaluations of GBG in other settings support promise of the approach (van Lier et al., 2005)
- **Seminal finding of GBG show potential for reducing suicidal behaviors through ‘upstream’ interventions to prevent cascading risk factors**

Prevention Programs in Childhood May Reduce Suicide Rates Across the Life-Span

- **Childhood is key 'prevention window' period** (Nat Acad Science; O'Connell et al., 2009):
 - ~50% of mental health disorders have onset by age 14
 - Median age of first diagnosis of depression is 15 years
 - Early adolescent substance -> adult abuse/dependence
- **Mental, emotional and behavioral (MEB) problems can be prevented**; many risk factors for suicide
- **Suicide attempt rates highest in adolescence**
 - A suicide attempt increases future risk of dying by suicide

***Reducing MEB problems, suicide attempts, and increasing protective processes, can contribute to reducing suicides across the life-span**

***Promising programs targeting high-risk and lower-risk youth – need to evaluate and identify how to implement programs effectively**

Youth Suicide Prevention and Intervention in Colorado



ICRC-S Webinar

03.13.13

Jarrod Hindman, MS

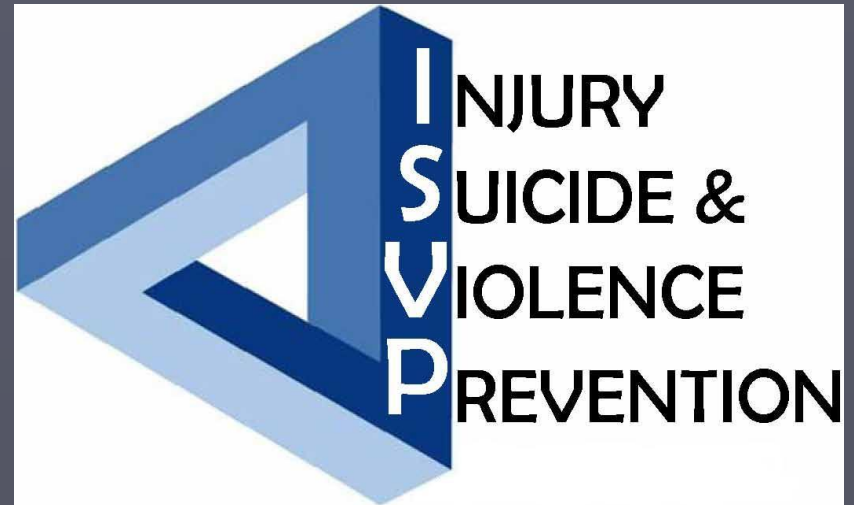
(jarrod.hindman@state.co.us; 303.692.2539)

Office of Suicide Prevention



Linking Communities, Building Awareness,
Preventing Suicide

www.coosp.org



Department of Public Health and Environment



House Bill 00-1432

- ▶ Directed the Colorado Department of Public Health and Environment to set up the office of Suicide Prevention to act as the state coordinator for suicide prevention programs throughout Colorado. The Office of Suicide Prevention was created through legislative action in June 2000.
- ▶ Allocated \$157,830 to fund the OSP
- ▶ Fiscal year 2013 - \$384,348

Office of Suicide Prevention

www.coosp.org

- ▶ Mission – To serve as the lead entity for statewide suicide prevention and intervention efforts, collaborating with Colorado communities to reduce the number of suicide deaths and attempts in the state.

- ▶ OSP Activities

- Community grant making
- HB 2012-1140
- Children’s Hospital Means Restriction Education
- Bridging the Divide: Suicide Awareness and Prevention Summit
- Public information and education campaigns, clearinghouse, & presentations
- Man Therapy – www.mantherapy.org
- 1.800.273.TALK (8255)
- Suicide Prevention Coalition of Colorado

Office of Suicide Prevention

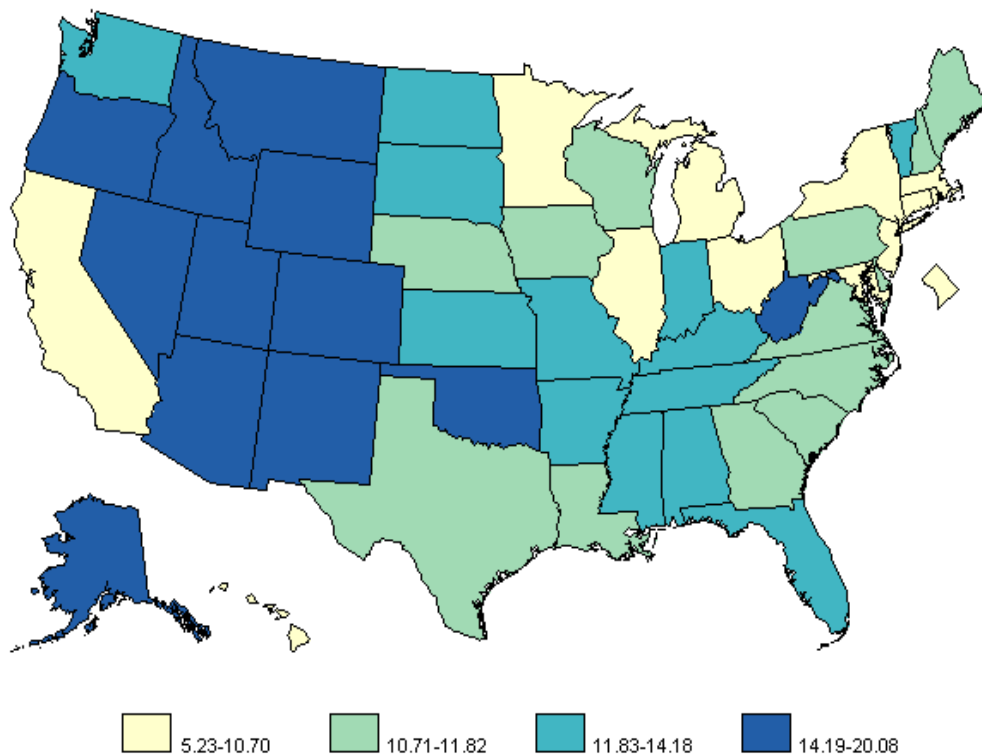


Linking Communities - Building Awareness
Preventing Suicide

www.coosp.org

2000-2006, United States

Age-adjusted Death Rates per 100,000 Population
All Injury, Suicide, All Races, All Ethnicities, Both Sexes, All Ages
Annualized Age-adjusted Rate for United States: 10.81



The Top 10 (2010)

1. Wyoming (23.2)
2. Alaska
3. Montana
4. Nevada
5. New Mexico
6. Idaho
7. Oregon
8. Colorado (17.2)
9. South Dakota
10. Utah

US: 12.4/100,000

CDC WISQARS

Reports for All Ages include those of unknown age.

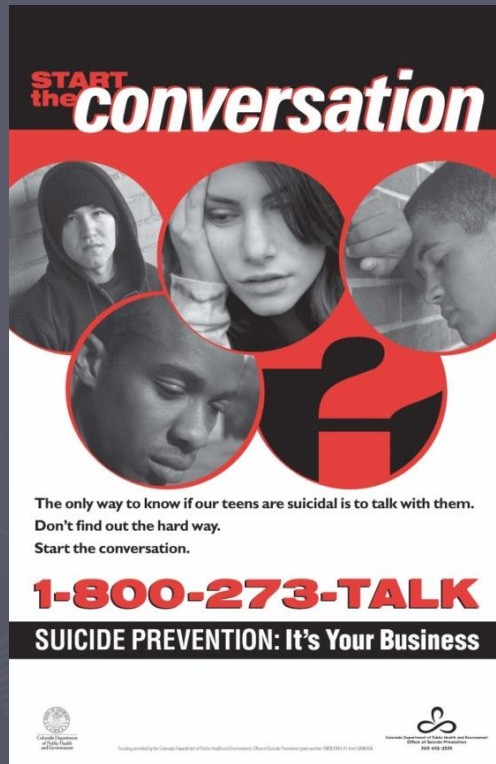
* Rates based on 20 or fewer deaths may be unstable. States with these rates are cross-hatched in the map (see legend above). Such rates have an asterisk.

The standard population for age-adjustment represents the year 2000, all races, both sexes.

Produced by: Office of Statistics & Programming, National Center for Injury Prevention & Control, CDC

Data Sources: NCHS National Vital Statistics System for numbers of deaths; US Census Bureau for population estimates.

Project Safety Net – 2006-2012 GLS/SAMHSA www.preventyouthsuicide.com



START the conversation

The only way to know if our teens are suicidal is to talk with them. Don't find out the hard way. Start the conversation.

1-800-273-TALK

SUICIDE PREVENTION: It's Your Business

Canadian Mental Health Association
1-800-273-8255



COMIENCE A dialogar ahora

La única manera de saber si nuestros jóvenes están pensando en suicidarse es hablando con ellos. No espere a que sea demasiado tarde. Comience a dialogar ahora.

1-800-273-8255

La prevención del suicidio: Es también su responsabilidad

Canadian Mental Health Association
1-800-273-8255

Partnering to create suicide-safe schools and communities by training adults who work with high risk youth:

- Juvenile Justice System
- Child Welfare System
- Hispanic/Latino(a) Youth
- LGBTQ Youth

Project Safety Net – 2006-2009

- 5 counties & CU Boulder – Juvenile Justice & Child Welfare

	ASIST	QPR	Total
Trainings	41	107	148
Participants	737	1,716	2,453
Male	115	418	21.7%
Female	494	1,061	63.4%

- Trainees showed improvement from pre to post test on knowledge, self-efficacy, and intentions to inquire and/or intervene
- At follow-up, trainees reported 774 total interventions

Project Safety Net – 2009-2012

- 22 counties (5 urban, 17 rural) – JJ, CW, Hispanic, LGBTQ

	ASIST	QPR	Total
Trainings	46	165	211
Participants	970	3,459	4,429
Male			1,020 (28.7%)
Female			2,517 (70.8%)
Transgender			14 (0.4%)

- Trainees showed improvement from pre to post test on knowledge, self-efficacy, & intentions to inquire/intervene
- At follow-up, trainees reported 242 total interventions w/ referrals

LGBTQ Youth Initiatives

- PSN – LGBTQ Brochure

Contact your local suicide prevention agency for more information on how you can prevent suicide in your community.

- Douglas County: Douglas County School District 303-387-0122
- El Paso County: Suicide Prevention Partnership of the Pikes Peak Region. 719-573-7447
- Jefferson, Gilpin, & Clear Creek Counties: Jefferson Center for Mental Health 303-425-0300
- Northeastern Colorado (Logan, Morgan, Kit Carson, Lincoln, Phillips, Sedgwick, Washington, & Yuma Counties): Rural Solutions 970-526-3616
- Pueblo County: Pueblo Suicide Prevention Center 719-564-6642
- Western Slope (Delta, Montrose, Gunnison, Hinsdale, Ouray, & San Miguel Counties): Midwestern Colorado Mental Health Center 970-252-3228
- Weld County: Dynamic Family Design 970-631-5092

For immediate assistance please call 1-800-273-8255 IN AN EMERGENCY CALL 9-1-1

If you, or someone you know is thinking about suicide and are not sure what to do, call the toll-free national suicide crisis hotline: 1-800-273-TALK (8255) Calls are confidential

NATIONAL SUICIDE PREVENTION LIFELINE 1-800-273-8255

LGBTQ Youth Crisis and Suicide Prevention Helpline

The Trevor Helpline is a free and confidential service that offers hope and someone to talk to, 24/7. The Trevor Helpline's trained counselors will listen and understand without judgment. If you or someone you know would like to talk to one of our highly trained counselors, dial 1-866-4-U-TREVOR.

THE TREVOR HELPLINE 866-4-U-TREVOR

A product of the Office of Suicide Prevention

Suicide Risk for Lesbian, Gay, Bisexual, and Questioning (LGBTQ) Youth: The Risks, The Facts, The Warning Signs & What You Can Do An informational brochure.

it's your BUSINESS

Office of Suicide Prevention Linking Communities, Building Awareness, Preventing Suicide www.osp.org

- Safe Talk / LGBTQ information session

- Jefferson Center for Mental Health & GLBT Community Center of Colorado
- 1/2 day information session + 1/2 day Safe Talk
- More than 300 trained to date

- Colorado Anti-Violence Project

- Office of Suicide Prevention & the Sexual Violence Prevention Program
- Film made by and for youth from throughout Colorado – being finalized now

Colorado's 10 Winnable Battles

1. Clean Air
2. Clean Water
3. Infectious Disease Prevention
4. Injury Prevention
5. **Mental Health & Substance Abuse**
6. Obesity
7. Oral Health
8. Safe Food
9. Tobacco
10. Unintended Pregnancy



Youth Suicide Prevention and Intervention Symposium

- 600 school personnel have attended 4 symposia
- State of the state
- Conducting risk assessments
- Postvention
- School-based programs and planning



CO House Bill 2012 - 1140

- 95 CDPHE licensed hospitals in CO
- Information and materials at time of discharge for patients and families
- Assessment of hospitals to identify current practices, gaps and needs



Fiscal Year 2014

- Means Restriction Education – Children’s Hospital



- New Hampshire Gun Shop Project – CO Pilot



Other CO Programs

- ▶ Second Wind Fund – thesecondwindfund.org
- ▶ Safe2Tell – 877.542.SAFE - safe2tell.org
- ▶ Yellow Ribbon - yellowribbon.org
- ▶ The FIRE Within – carsonjspencer.org/programs/firewithin
- ▶ Sources of Strength - sourcesofstrength.org
- ▶ Judy's House – judishouse.org



“We will have to repent in this generation not merely for the hateful words and actions of the bad people, but for the appalling silence of the good people.”

Dr. Martin Luther King, Jr.



Questions?



Thank You!

Please take a moment to take our webinar
evaluation:

<http://www.surveymonkey.com/s/icrcswebinar031313>

Save the date for our follow-up conference call:

March 20, 2013 from 2-3 PM ET on

[Click here to register](#)