Suicide Among Older Adults

Holly C. Wilcox, PhD
Department of Mental Health, Johns Hopkins Bloomberg School of Public Health
Department Of Psychiatry, Johns Hopkins Hospital
Outline

• Recent data and trends in older adult suicide
• Risk and protective factors
• Prevention approaches
Epidemiology
Leading causes of death for selected age groups – United States. 2017

<table>
<thead>
<tr>
<th>10 Leading Causes of Death by Age Group, United States - 2017</th>
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<table>
<thead>
<tr>
<th>Rank</th>
<th>Age Groups</th>
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<td>1</td>
<td>Congenital Anomalies 4,580</td>
<td>Heart Disease: 847,457</td>
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<td>Unintentional Injury 1,267</td>
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<td>Short Gestation 3,749</td>
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<td>Congenital Anomalies 188</td>
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<td>4</td>
<td>SIDS 1,863</td>
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<td>Homicide 303</td>
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<td>Homicide 154</td>
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<td>Heart Disease 127</td>
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<td>Heart Disease 75</td>
<td>Heart Disease: 847,457</td>
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<td>6</td>
<td>Placenta Cord Abnormalities 843</td>
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<td>Influenza &amp; Pneumonia 104</td>
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<td>Influenza &amp; Pneumonia 62</td>
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<td>Septicemia 48</td>
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<td>Septicemia 39</td>
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<td>Septicemia 56</td>
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<td>8</td>
<td>Respiratory Distress Syndrome 440</td>
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<td>Septicemia 51</td>
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<td></td>
<td>Septicemia 48</td>
<td>Heart Disease: 847,457</td>
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<td>9</td>
<td>Neonatal Hemorrhage 379</td>
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<td>Perinatal Period 42</td>
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<td>Preterm Neonatal (31)</td>
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Suicidal rates among males by age group -- United States, 1999 and 2017

Suicidal rates females by age group -- United States, 1999 and 2017

Self-inflicted injury among all persons by age and sex--United States, 2016

Source: CDC WISQARS NEISS
Method used in suicide

- **65+**
  - Firearm: 11%
  - Poison: 2%
  - Suffocation: 14%
  - Cut/pierce: 73%

- **All Ages**
  - Firearm: 16%
  - Poisoning: 60%
  - Suffocation: 27.7%
  - Cut/pierce: 13.9%
  - Other: 50.6%
Middle-aged white mortality has skyrocketed

Overdose, suicide and alcohol-related deaths per 100,000 for white non-Hispanics ages 50 to 54, by gender and education

**HIGH SCHOOL DEGREE OR LESS**
- **196** Men, up 130% from 1998 to 2015
- **115** Women, up 381%

**FOUR-YEAR COLLEGE DEGREE OR MORE**
- **47** Men, up 44%
- **26** Women, up 70%

Suicide rates among all persons by age and sex--United States, 2017

The total cost of suicides and suicide attempts in 2013 was $93.5 billion
The average cost of one suicide was $1,329,553

Source: CDC vital statistics
Risk and Protective Factors
Risk and Protective factors

- Psychiatric Illness
  - 85/90%, depression most common

- Social Disconnectedness
  - Living alone, loss of spouse, loneliness, social discord, low social support,

- Physical Illness and Pain
  - More frail

- Functional Impairment

- Cognitive and Neurobiological Processes

- Personality and Cultural Factors

Van Orden & Conwell, 2011
The Interpersonal Theory of Suicide Applied to Late Life

Van Orden & Conwell, 2011
47,173 Suicide Decedents in the United States (2017)

- **Firearm Deaths**: 22,938
- **Motor Vehicle CO Poisoning Deaths**: ~791
- **Jail and Prison Inmates**: ~500
- **Military**: 479
- **Military Veterans**: 8,993
- **Accessed healthcare within 30 days of death**: ~20,000
- **Seen in Emergency Department for suicide attempt in past year**: ~10,110

**Data Sources:**
1. CDC WISQARS 2016
2. CDC WONDER 2014
3. Bureau of Justice Statistics 2013
4. DoDSER CY 2015 Report
5. Luoma et al., 2002; Ahmedani et al, 2014
6. Department of Veterans Affairs 2016
7. CDC WISQARS 2015 & Owens et al, 2002
Gotland, Sweden
Professional Awareness

Up to 66% of suicide decedents see their primary care doctor within a month of their death

- Programs aimed at educating primary care physicians can **improve detection and treatment** of depression but some studies have not had an impact

- Some programs have increased prescription rates for antidepressants and reduced suicide rates

Luoma et al., 2002; Andersen et al., 2000
Gotland study

- Swedish Committee for the Prevention and Treatment of Depression in 1983
- Training program for GPs on the island
- Decrease in suicides (by 60%) and inpatient depression care compared to the rest of Sweden
- Increase in use of antidepressants
- Decrease in use of tranquilizers
- Impact in Older Male (60+) and women
- Long term follow-up (1988) showed suicide rates returned to baseline
Professional Awareness

Island of Gotland, Sweden instituted an educational program for all general practitioners

GP identified more patients with major depression and treated them more accurately

Suicide Rates in:

<table>
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<tr>
<th>Year</th>
<th>n</th>
<th>per 100,00</th>
<th>n</th>
<th>per 100,000</th>
<th>$x^2$</th>
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<td>2124</td>
<td>25.5</td>
<td>11</td>
<td>19.7</td>
<td>0.73</td>
<td>NS</td>
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<td>1983</td>
<td>2087</td>
<td>25.1</td>
<td>14</td>
<td>25.0</td>
<td>0.00</td>
<td>NS</td>
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<tr>
<td>1984</td>
<td>2208</td>
<td>26.5</td>
<td>8</td>
<td>14.3</td>
<td>3.17</td>
<td>NS</td>
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<tr>
<td>1985</td>
<td>2068</td>
<td>24.8</td>
<td>4</td>
<td>7.1</td>
<td>7.06</td>
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New York and Pennsylvania, USA

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Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT)

Aimed to prevent suicide among older primary care patients by reducing suicidal ideation, depression, and risk of death.

The intervention components are
(1) recognition of depression and suicidal ideation by primary care physicians,
(2) application of a treatment algorithm for geriatric depression in the primary care setting, and
(3) treatment management by health specialists (e.g., nurses, social workers, psychologists).
Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT)

- The study randomized 20 primary care practices from New York City, Philadelphia, and Pittsburgh regions into intervention or usual care.
  - n=1238 subjects including 598 with a depression diagnosis and 640 with no depression diagnosis.
- Compared with patients receiving usual care, those receiving the intervention had a higher likelihood of receiving antidepressants and/or psychotherapy (84.9%-89% versus 49%-62%) and had a 2.2 times greater decline in suicidal ideation over 24 months.
Padua, Italy

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Tele-Help/Tele-Check

Method
• Alarm system activated when help was needed
• Contact by phone twice weekly
• Personal contact if needed
• Participants: 18,600 older adults (84% women)

Result
• Over 11 years 6 persons died by suicide (expected: 20.9). 28% reduction.
• Less doctor appointments
• Scientific effect but only for women

DeLeo et al., 2002
Peer-to-Peer Programs to Prevent Suicide

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Peer Support

Peer support interventions are one possible solution to the problem of under-engagement in mental health services.

Goetter et al., 2017

Peer health workers have shown promise in working with marginalized or other hard-to-reach groups who face complex barriers to good healthcare.
Peer Support

• Definition:
  Practical, social, and emotional support from a person with shared affiliation, lived experiences, or situations.

Peer-to-peer providers:
  – Connect peers to needed resources
  – Foster and build connectedness
  – Assist peers in developing social skills
  – Serve as role models
  – Combat stigma
Peer-to-Peer (P2P) Studies with Relevance to Suicide Prevention

There are four types of P2P approaches:
• P2P approaches to enhance/augment other mental health services
• Peer support programs with linkage to mental health services as needed
• Peer-led self-management programs
• Peer-led psychotherapy-based approaches
P2P to enhance/augment other mental health services

- Over a 6 month follow-up, peer support specialists increased satisfaction with care and reduced depressive and anxiety symptoms among veterans discharged from inpatient treatment for depression.
  » Pfeiffer et al., 2016

- Veterans receiving intensive case management from peer specialists improved significantly more than those receiving usual care on knowledge, skills, attitudes and confidence in managing their health and treatment.
  » Chinman et al., 2015
And still more

• Veteran-led groups complementary to or embedded in the mental healthcare system had better outcomes on **empowerment, confidence, functioning, and alcohol use** among participating veterans than those not receiving care.
  
  » Resnick & Rosenheck, 2008

• Peer-to-peer outreach by phone **reduced the rate of drop-out and increased the number of psychotherapy sessions** received by veterans in a community-based clinic.
  
  » Goetter et al., 2017
Peer-led self-management programs

- Aim to improve individuals’ ability to manage their illness.
  - Six studies have demonstrated improved capacity to manage illness (increased primary care visits, physical activity, medication adherence...), confidence, hopefulness for recovery, awareness of warning signs, use of wellness tools and crisis plans, connection to others; and fewer pain symptoms, lowered use of alcohol...
Peer-led psychotherapy-based approaches

• Four studies have examined the impact of training peers to deliver and support psychotherapy services and have demonstrated:
  – **Symptom reductions and completion rates comparable to professional and computerized CBT interventions**
    » Nelson et al., 2014
  – **Improved mood, decreased anxiety and depression, gained skills in problem-solving, stress reduction and anger management, and reduced stigma; substance-use abstinence**
    » Pratt et al., 2015; Smith et al., 2016; Lattie et al., 2017
What does the P2P data tell us?

• Trained peer-to-peer providers can be effective in engaging people into care and reducing psychiatric symptoms.

• Peer-to-peer providers can be trained to mentor, help navigate, connect, advocate, coach, advise, assist, educate…peers in need
Limitations to what we do know; What don’t we yet know?

- Research to date limits our conclusions as comparison groups are rarely used.
- Findings are based on small sample sizes.
- Impacts on those at risk for suicide have not been evaluated.
- Training is essential; issues of credentialing, needs for supervision, etc. need more study.
- Role clarity is key to success.
Summary

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Summary

- The elderly, particularly the oldest old men, have high suicide rates.
- Recent slight reduction in suicide rate in older men
- Older people use very determined methods (firearms).
Summary

- One of the strongest predictors of elderly suicide is depression
  - often not identified & not treated.

- Mental and physical disorders, stressful life events can increase risk of suicide in older adults.

- Prevention is possible but should be focused at early stages of suicidal behavior.
Thank you!

hwilcox@jhsph.edu