Gun Violence: A Public Health Issue

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Gun Violence in the United States
A Major Health Threat

• Nearly 1 million homicides since 1950

• Homicide is #3 leading cause of death for those under 35 (2010)
  • #1 leading cause of death for African Americans under 35 (2007)

• 68% of homicides are with a gun in 2011

• Over 136,000 gun assaults in 2011

• Compared to other 1st world countries, US has...
  • Average rates of robbery, burglary, assault
  • Very high rates of gun assault, gun homicide, gun suicide
Gun Violence in the United States
Impact on Our Communities

• Exposure to violence linked to chronic health conditions, including:
  • Asthma, Stroke, Heart Disease, Cancer, Diabetes, and more

• Mental health effects – PTSD, stress, anxiety, depression

• Decreased investment in community

• Disrupted social networks

• Negative educational effects – test scores, focus,

  Total cost per shooting = $1 million (Ludwig 2010)
  Total cost per homicide = $17.25 million (DeLisi 2010)
VIOLENCE IS A CONTAGIOUS PROCESS
Clustering

Cholera in Bangladesh

Homicides in Chicago

1983-2003

2010
Spread - Time

Homicides in United States (1950-2000)

Influenza Deaths in United States (1957-1958)

FBI UCR data
Spread - Geography

Gun Violence in Newark

Plague in Europe

Zeoli 2012
Transmission of Violent Behavior
(Meltzoff & Moore 1977)
Estimated 30% of Children Abused Become Child Abusers

- Child Abuse Victims
  - 30% Abuse their children

Kaufman 1987
Community Violence Increases Post War (WW1 & WW2)

(Archer & Gardner 1976)
Chronic Exposure to Community Violence Associated with $30\times$ Risk of Perpetrating Violence

Spano, Rivera, & Bolland 2010
Violence

Gang violence
Community violence
Genocide
Child abuse
Urban crime
Ethnic-religious conflict
Civil war
War
Family violence
Transmission of violence

Exposure to Violence

O, V

P

Violence
Methods of Transmission

ViD
Visual violence transmission

Intake → Processing → Disease

Modulating factors: Age, prior immunity, type of exposure, dose, context, others
Epidemic Approach - Cure Violence

- Interrupt Transmission
- Identify and change the thinking of highest potential transmitters
- Change Community Norms

→ Stop violent events before they happen
→ Reduce number of violent individuals
→ Create social pressure to stop violence

→ Reduced Violence
Change Behavior
<table>
<thead>
<tr>
<th>City</th>
<th># of Communities Evaluated</th>
<th>Reduction in Shootings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago (2000-2008)</td>
<td>7</td>
<td>-41% to -73%</td>
</tr>
<tr>
<td>Baltimore (2007-2010)</td>
<td>4</td>
<td>-34% to -44%</td>
</tr>
<tr>
<td>New York (2009-2011)</td>
<td>1</td>
<td>-20%</td>
</tr>
</tbody>
</table>
Public Health – Approaches to Prevention of Gun Violence

GENERAL ROLES

• Define the Problem
  • Health problem

• Identify Risk and Protective Factors
  • Identify and treat highest risk
  • Detect and mediate conflicts
  • Laws and policies

• Develop and Test Prevention Strategies
  • Health-based solutions needed
  • Community focus
  • Prevention focus
  • Norm and behavior change

• Ensure Adoption of Effective Programs
  • Use of science to prove what works
  • Community change
ROLES for Health and Public Health Professionals

State, County, and City Health Departments

• Implement epidemic control programs to prevent the spread of violence
  • Example – Safe Streets, Baltimore, MD

• Analysis of injury data to provide public health information related to violence
ROLES for Health and Public Health Professionals

Hospitals – (especially those with trauma services)

- Prevent retaliations and relapse by providing treatment for mental trauma suffered by victims of violence
ROLES for Health and Public Health Professionals

**Doctors, Nurses, and Other Health Professionals**

- Implement methods of detecting those at high risk of perpetrating violence and appropriately refer them for behavior change treatment
ROLES for Health and Public Health Professionals

Universities and Schools of Public Health

• Conduct research on the magnitude and impact of violence

• Conduct research on public health methods to prevent violence – changing behaviors, changing norms, and mediating conflicts

• Develop curriculum and offer classes on violence, behavior change, norm change, and mediation
ROLES for Health and Public Health Professionals

Communities Affected by Violence

• Deploy community health workers with the responsibility to address violence

• Link to health departments and other government agencies to manage programs that treat violence as a health issue
ROLES for Health and Public Health Professionals

**Media**

- Use the language of violence as an epidemic – crime waves, hot spots, violence norms, etc.
- Describe successes of programs that treat violence as a disease.
Behavioral health professionals

• Interact more with the criminal justice system at multiple points – parole, probation, prison – in order to identify and treat those traumatized by exposure to violence.
FIRST STEPS for All Health and Public Health Professionals

• Learn more about violence as a disease
• Learn about the next steps you can take

RESOURCES:
• CureViolence.org
• NNHVIP.org
• PreventionInstitute.org/UNITY

And many more
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CureViolence.org