Violence Across the Life Span

Effects and Prevention
Head2Toe Conference
April 7, 2015
How do we know that violence begets violence?

• The question that launched the Adverse Childhood Experiences Study

• Subsequent research (over 60 papers published by Felitti, Anda and their co-researchers) has confirmed the original findings

• An understanding of the impact of early childhood adverse experiences has changed the landscape for pediatricians, child welfare agencies, behavioral health providers, educators, and public health agencies.
Adverse Childhood Experiences (ACEs) Study

Prospective Cohort Study

• Collaboration between Centers for Disease Control & Prevention and Kaiser Permanente Health Appraisal Clinic

• Of 26,000 eligible HMO member-patients, 17,421 enrolled in study between 1995 and 1997

• Study included a comprehensive medical evaluation, physical exam, labs, and confidential survey questionnaire

• On-going tracking of medical status of study participants; 15 years average follow up

• Continuous studies (BRFSS, other longitudinal studies).

Source: Adverse Childhood Experiences Study, CDC Website: http://www.cdc.gov/ace/index.htm
What are Adverse Childhood Experiences?

Neglect: Physical Emotional

Abuse: Physical Emotional Sexual

Household Dysfunction:
- Parental Mental Illness
- Parental Substance Abuse
- Battered Mother
- Parental Discord
- Parent Incarcerated

How do ACES cause disease and injury?

Stressors that impact the developing brain:

- Household Dysfunction:
  - Battered mother
  - Substance Abuse
  - Mental Illness
  - Criminal Behavior
  - Parental Discord

- Neglect:
  - Physical
  - Emotional

- Abuse:
  - Physical
  - Psychological
  - Sexual
ACEs HAVE MANY IMPACTS THROUGHOUT THE LIFESPAN

CRITICAL & SENSITIVE DEVELOPMENTAL PERIODS
day childhood, ages 7-9, pre-puberty, aging into adulthood

ADVERSE CHILDHOOD EXPERIENCE
MORE CATEGORIES – GREATER IMPACT
Physical Abuse, Sexual Abuse
Emotional Abuse, Neglect
Witnessing Domestic Violence
Depression/Mental Illness in Home
Incarcerated Family Member
Substance Abuse in Home
Loss of a Parent

GENETICS
Including gender –
Remember that experience
triggers gene expression
(Epigenetics)

BRAIN DEVELOPMENT
Electrical, Chemical, Cellular Mass

ADAPTATION
Hard-Wired Into Biology

CHRONIC DISEASE

PSYCHIATRIC DISORDERS

IMPARED COGNITION

WORK/SCHOOL
Attendance, Behavior, Performance

OBESITY

ALCOHOL, TOBACCO, DRUGS

RISKY SEX

CRIME

POVERTY

INTERGENERATIONAL TRANSMISSION, DISPARITY
Study Results: ACEs Scoring

- Study participants were given an ACE score. Each category of abuse counted as one; the total count of the number of ACES they reported = their ACE score.
- Two-thirds reported at least one ACE;
- 87% of that group experienced 2 or more;
- More than 1:5 reported $\geq 3$ ACEs.
Results: Key Findings

- ACE Categories are equal in impact
- Women are 50% more likely than men to report ≥ 5 ACEs
- There is a dose-response relationship between childhood trauma and poor health outcomes
Study Results: Adverse Childhood Experiences Are Common

<table>
<thead>
<tr>
<th>Household Dysfunction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental substance abuse</td>
<td>27%</td>
</tr>
<tr>
<td>Parental separation/divorce</td>
<td>23%</td>
</tr>
<tr>
<td>Mental illness</td>
<td>17%</td>
</tr>
<tr>
<td>Battered mother</td>
<td>13%</td>
</tr>
<tr>
<td>Criminal behavior</td>
<td>6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abuse</th>
<th></th>
<th>Neglect</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological</td>
<td>11%</td>
<td>Emotional</td>
<td>15%</td>
</tr>
<tr>
<td>Physical</td>
<td>28%</td>
<td>Physical</td>
<td>10%</td>
</tr>
<tr>
<td>Sexual</td>
<td>21%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Anda, RF www.RobertAndaMD.com
Findings suggest certain childhood experiences are important risk factors for the leading causes of illness and death, as well as poor quality of life.

## ACE STUDY Results

As ACE score goes up, so do risks for:

### Health-risk Behaviors
- Sexual promiscuity
- Sexual perpetration
- Alcohol abuse
- Illicit/injected drug use
- Smoking

### Mental health and well-being
- Depression, post-traumatic stress disorder (PTSD)
- Aggression
- Anxiety
- Somatic complaints
- Attempted suicide
- Social ostracism
- Anxiety
- Academic achievement
- Re-victimization
- Unwanted pregnancy
- Job problems; lost time from work

### Disease and Injury
- STDs, including HIV
- Gynecological problems
- Heart disease
- Diabetes
- Stroke
- Cancer
- Suicide

Prevalence of Child Abuse by Frequency of Witnessing Domestic Violence

Source: Anda, RF www.RobertAndaMD.com
ACE Score and the Risk of Being a Victim of Domestic Violence

Source: Anda, RA. www.RobertAndaMD.com
The ACE Score and the Prevalence of Attempted Suicide

Source: Anda, RF www.RobertAndaMD.com
Lifetime Costs of Childhood Maltreatment

- The estimated average lifetime cost per victim of nonfatal child maltreatment includes:
  - $32,648 in childhood health care costs
  - $10,530 in adult medical costs
  - $144,360 in productivity losses
  - $7,728 in child welfare costs
  - $6,747 in criminal justice costs
  - $7,999 in special education costs

- The estimated average lifetime cost per death includes:
  - $14,100 in medical costs
  - $1,258,800 in productivity losses

Source: Centers for Disease Control and Prevention, http://www.cdc.gov/media/releases/2012/p0201_child_abuse.html
Implications: Injury Prevention

- If we can prevent ACEs, we can make a significant impact on reducing injury, influencing various other public health indicators, reducing risky behaviors, and decreasing need for social service systems and treatment.

- Knowledge about the co-occurrence of ACEs can help mitigate exposure to additional adverse childhood experiences and improve the effectiveness of prevention services.
Implications: Prevention and Treatment

- Specific interventions targeted at parents who have ACEs can help prevent the transmission of ACEs to their children and stop the intergenerational cycle of adverse childhood experiences.

- Children experiencing toxic stress – and adults who still suffer the effects of ACEs – need appropriate support to process those experiences.
Violence-Related Morbidity and Mortality in New Mexico Across the Age Spectrum
## Top 8 Leading Causes of Death, New Mexico, 2013 and U.S., 2010

<table>
<thead>
<tr>
<th>New Mexico</th>
<th>Rank</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>1</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>2</td>
<td>Cancer</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>3</td>
<td>Chronic lower respiratory diseases</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases</td>
<td>4</td>
<td>Cerebrovascular diseases</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>5</td>
<td>Unintentional injuries</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>6</td>
<td>Alzheimer's disease</td>
</tr>
<tr>
<td>Chronic liver disease and cirrhosis</td>
<td>7</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>Intentional self-harm (suicide)</td>
<td>8</td>
<td>Nephritis, nephrotic syndrome &amp; nephrosis</td>
</tr>
</tbody>
</table>

Sources -
New Mexico: Vital Records and Health Statistics
United States: National Center for Health Statistics
# Childhood Injuries Leading to Death, NM 2009-2013

## Age Groups

<table>
<thead>
<tr>
<th>Rank</th>
<th>0-4</th>
<th>5-9</th>
<th>10-14</th>
<th>15-19</th>
<th>20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Unintentional Drowning 5</td>
<td>Unintentional Drowning 10</td>
<td>Homicide 4</td>
<td>Suicide 16</td>
<td>Suicide 122</td>
</tr>
<tr>
<td>3</td>
<td>Motor Vehicle Traffic 4</td>
<td>Motor Vehicle non-Traffic 8</td>
<td>Other Transport 3</td>
<td>Homicide 5</td>
<td>Homicide 55</td>
</tr>
<tr>
<td>4</td>
<td>Homicide 2</td>
<td>Unintentional Suffocation 5</td>
<td>MV non-Traffic Unintentional Fire/burn &amp; Fall 2 each</td>
<td>Unintentional Drowning 4</td>
<td>Unintentional Poisoning 52</td>
</tr>
<tr>
<td>5</td>
<td>Unintentional Fire/burn 4</td>
<td>Homicide 4</td>
<td>Unintentional Poisoning 3</td>
<td>Unintentional Drowning 11</td>
<td>Unintentional Drowning &amp; Fall 8 each</td>
</tr>
</tbody>
</table>

Source: NM Department of Health Bureau of Vital Records and Health Statistics.
# Childhood Injuries Leading to Hospitalizations, NM 2013

<table>
<thead>
<tr>
<th>Rank</th>
<th>&lt;1</th>
<th>1-4</th>
<th>5-9</th>
<th>10-14</th>
<th>15-19</th>
<th>20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assault 21</td>
<td>Unintentional Fall 45</td>
<td>Unintentional Fall 59</td>
<td>Unintentional Fall 31</td>
<td>Suicide 91</td>
<td>Suicide 118</td>
</tr>
<tr>
<td>2</td>
<td>Unintentional Fall 15</td>
<td>Unintentional Poisoning 35</td>
<td>Motor Vehicle Traffic 19</td>
<td>Suicide 29</td>
<td>Motor Vehicle Traffic 67</td>
<td>Motor Vehicle Traffic 87</td>
</tr>
<tr>
<td>3</td>
<td>Unintentional Poisoning 8</td>
<td>Unintentional Other Specified 17</td>
<td>Other Transportation 12</td>
<td>Motor Vehicle Traffic 22</td>
<td>Unintentional Fall 36</td>
<td>Assault 56</td>
</tr>
<tr>
<td>4</td>
<td>Unintentional Other Specified 2</td>
<td>Motor Vehicle Traffic 16</td>
<td>Unintentional Other Specified 11</td>
<td>Other Transportation 13</td>
<td>Assault 22</td>
<td>Unintentional Poisoning 33</td>
</tr>
<tr>
<td>5</td>
<td>Unintentional Struck by, against 1</td>
<td>Assault 13</td>
<td>Unintentional Struck by, against 7</td>
<td>Unintentional Other Specified 12</td>
<td>Unintentional Poisoning 19</td>
<td>Unintentional Fall 32</td>
</tr>
</tbody>
</table>

Source: NM Department of Health – Health Systems Program.
Suicide by sex and age group, NM residents, 2009-2013

Sources: New Mexico Bureau of Vital Records and Health Statistics; New Mexico Violent Death Reporting System
Homicide by year, New Mexico and the United States, 1999-2013

Source: NM IBIS
Child Abuse and Neglect, July 2013-June 2014, NM

• NM CYFD received 21,129 reports of child abuse or neglect during FY 2014, 2,950 more than in FY 2013.

• These reports resulted in 2,208 substantiated reports of physical abuse, 210 substantiated cases of sexual abuse and 7,720 substantiated cases of physical neglect.

• Allegations of physical neglect have been rising steadily since FY 2010.

Source: CYFD 360 Yearly Report State Fiscal Year 2014
In 2011, 707,212 young people ages 10 to 24 were treated in emergency departments for injuries sustained from physical assaults.

In 2011, of a nationally-representative sample of students in grades 9-12, 3.9% reported being in a physical fight one or more times in the previous 12 months that resulted in injuries that had to be treated by a doctor or nurse.

The Impact of ACEs on Adolescent Violence

- More than 1 in 4 youth (28.9%) reported at least 1 adverse childhood experience.

- The most commonly reported adverse experience was alcohol abuse by a household family member that caused problems.

- Each type of adverse childhood experience was significantly associated with adolescent interpersonal violence perpetration (delinquency, bullying, physical fighting, dating violence, weapon-carrying on school property) and self-directed violence (self-mutilatory behavior, suicidal ideation, and suicide attempt).

- For each additional type of adverse event reported by youth, the risk of violence perpetration increased 35% to 144%.

What We Know about Bullying

• Bullying includes making threats, spreading rumors, attacking someone physically or verbally, and excluding someone from a group on purpose.

• Bullying can occur in-person or through technology.

• Bullying has serious and lasting negative effects on the mental health and overall well-being of youth involved in bullying in any way.

• Even youth who have observed but not participated in bullying behavior report significantly more feelings of helplessness and less sense of connectedness with responsible adults (parents/schools).

Outcomes of Bullying

- Outcomes of bullying (for youth who bully others, youth who are bullied, and youth who both are bullied and bully others) may include:
  - depression
  - anxiety
  - substance abuse
  - involvement in interpersonal violence or sexual violence
  - poor social functioning
  - poor school performance and attendance

- Youth who report frequently bullying others and youth who report being frequently bullied are at increased risk for suicide-related behavior.

Sexual Violence Experiences of NM High School Females by Sexual Orientation

Data source: 2013 New Mexico Youth Risk and Resiliency Survey (YRRS) and National Youth Risk Behavior Survey (YRBS, Centers for Disease Control and Prevention)
Sexual Violence Experiences of NM High School Males by Sexual Orientation

Data source: 2013 New Mexico Youth Risk and Resiliency Survey (YRRS) and National Youth Risk Behavior Survey (YRBS, Centers for Disease Control and Prevention)
Sexual Violence, NM

- There were 4,058 sexual assaults involving 4,220 survivors reported to law enforcement in 2013.

- The Interpersonal Violence Data Central Repository estimates that there were 5,618 adult female and 3,100 adult male completed or attempted rapes in 2013.

- Only 17% of rapes are reported to police.

- About half of rape offenders are violating a restraining order when they commit the sexual assault.

Source: Nm Interpersonal Violence Data Central Repository: Sex Crimes in New Mexico XII, November 2014.
Domestic Violence, NM

- In 2013, domestic violence was responsible for 18,954 responses by law enforcement.
- Sixty-two percent of these incidents involved a weapon, 34% involved alcohol or drugs; 43% involved injury to the victim.
- 6,825 children were present at these incidents.

Elder Abuse Incidence, U.S.

- Adults aged 65 and older comprise 14.1% of the U.S. population (44,574,166/316,1288,839).
- The most recent major studies on incidence reported that 7.6%–10% of study participants experienced abuse in the prior year.
- One study estimated that only 1 in 14 cases of elder abuse ever comes to the attention of authorities.

Sources: U.S. Census 2013 estimates; National Center on Elder Abuse, Administration on Aging
Elder Abuse in New Mexico

- New Mexico Adult Protective Services received 11,804 reports and investigated 6,665 cases of suspected adult abuse, neglect, or exploitation in FY 2014. Sixty-four percent (64%) of victims were over the age of 60 and 26% were age 80 or older.

- In New Mexico last fiscal year, the most frequently reported and substantiated problem was self-neglect (53%) and caregiver neglect (25%), followed by exploitation (13%) and abuse (9%). Older adults and adults with disabilities, who cannot manage their own affairs, are highly vulnerable to abuse, neglect, and exploitation.

Source: New Mexico Aging and Long-Term Services Department: Adult Abuse Awareness
Conclusions

• New Mexicans suffer higher rates of injuries and deaths from violence than the U.S.

• Our goal: safe, stable, nurturing environments for all children in New Mexico.

• Schools have a role to play in recognizing signs of family dysfunction and abuse, and in Violence prevention education for all students, K-12.

• The Suicide Child Fatality review has recommended that all school personnel have access to training in suicide prevention.
Questions?

Please contact Robin Swift, Office of Injury Prevention, for more information

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