What is a disease?

A disease is a particular abnormal condition, a disorder of a structure or function, that affects part or all of an organism. Disease is often construed as a medical condition associated with specific symptoms and signs.

In humans, “disease” is often used more broadly to refer to any condition that causes pain, dysfunction, distress, social problems, or death to the person afflicted. In this broader sense, it sometimes includes injuries, disabilities, disorders, syndromes, infection….

Trauma

Injury or damage to a biological organism caused by physical harm from an external source

IS A DISEASE

What’s the big deal?
Unintentional injuries

- More than 9000 children die each year
- More than 225,000 children are hospitalized annually
- Nearly 9 million children treated in Emergency Departments for injuries

Injuries Cost the U.S. $671 Billion in 2013

Over two-thirds of these costs were due to nonfatal injuries

Nonfatal Injury $457 Billion

Fatal Injury $114 Billion

Fatal Injuries Cost the U.S. $214 Billion

134 Billion Filet – o – Fish at 2 for $5

56 Billion Chipotle bowl and chips
Unintentional injuries

- Burden of injury
- Cost to society
- Existing evidence-based prevention programs and policies
- Feasibility of action
- Potential for prevention that is demonstrable and measurable
- Stakeholder/partner support for prevention efforts
**YPOLL — Years of potential life lost**

- Estimates an average number of years a person would have lived if he or she did not die prematurely.
- In the US: Unintentional injuries account for 42% of all YPLL in the age group of 1-19.
- Unintentional YPLL is:
  - 5x higher than rate of cancer
  - 13x higher than the rate for heart disease
  - 31x higher than the rate for influenza & pneumonia

**Unintentional injuries**

**PREDICTABLE and PREVENTABLE**

**Who’s at risk?**

- Gender
- Race/Ethnicity
- Age
- Socioeconomic status
- Geography
Who's at risk for unintentional injuries?

<table>
<thead>
<tr>
<th>Factors</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male death rates 2x females</td>
</tr>
<tr>
<td></td>
<td>Male age 15-19 years have the highest rate of ED visits</td>
</tr>
<tr>
<td>Race</td>
<td>Highest in American Indians, Alaska Natives</td>
</tr>
<tr>
<td></td>
<td>Lowest for Asians or Pacific Islanders</td>
</tr>
<tr>
<td></td>
<td>Same for whites and African Americans [except for drowning]</td>
</tr>
<tr>
<td>Age</td>
<td>Age related injuries [suffocation, drowning, MVC]</td>
</tr>
<tr>
<td>Socioeconomic status</td>
<td>Lower income households</td>
</tr>
<tr>
<td></td>
<td>Lower maternal age, increase number of persons in household, lower maternal education, increase number of children &lt;16</td>
</tr>
<tr>
<td>Geography</td>
<td>Lowest injury rate in the Northeast</td>
</tr>
</tbody>
</table>

Preventing the disease of trauma

- Injuries are predictable events
- Predictable events are preventable
- Influenza → The Flu shot
- Measles, mumps, rubella → MMR
- Trauma → injury prevention

Injury Prevention: 3 Es

Education
- Inform the public of potential risks and safety options [foundation]

Enforcement
- Use the legal system to influence behavior

Engineering
- Environmental & product designs that reduce or minimize burned of injury

WHAT CAN WE DO?

South Texas Injury Patterns

<table>
<thead>
<tr>
<th>&lt;1</th>
<th>1-4</th>
<th>5-9</th>
<th>10-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Burns</td>
<td>MVC</td>
<td>MVC</td>
</tr>
<tr>
<td>MVC</td>
<td>Falls</td>
<td>Falls</td>
<td>Sports injuries</td>
</tr>
<tr>
<td>Burns</td>
<td>MVC</td>
<td>Burns</td>
<td>Falls</td>
</tr>
<tr>
<td>Child Abuse</td>
<td>Pedestrian</td>
<td>Hit by objects</td>
<td>Burns</td>
</tr>
<tr>
<td>Hit by objects</td>
<td>Hit by objects</td>
<td>Pedestrian</td>
<td>Off-road vehicles</td>
</tr>
</tbody>
</table>
APRIL POOLS DAY
- EDUCATION
- COMMUNITY PARTNERSHIP

Child Passenger Safety
- Education
- Community outreach
  - Booster seat distribution in high risk zip codes quarterly
  - Distribution of new carseats/booster seats to families after car crash
- Partner with community leaders

Distracted driving
- Drive Now Text L8R Campaign
- EDUCATION
- PLEDGE
- DRIVING STIMULATOR

Sports Injuries - Concussion
- Education
- ImPACT
- HEADS UP APP

Effective Injury Prevention
- Target the community
- Work upstream
- Choose existing programs that work
- Always partner with other organizations
- Embrace the media
- Be politically savvy
- Do not forget the data
Unintentional injuries

PREDICTABLE

and

PREVENTABLE