



Live, Online Professional Development

# Cost Effectiveness of Injury Prevention Programs

Wednesday, December 8, 2010  
10:00 a.m. to 11:30 a.m.

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## Presenter



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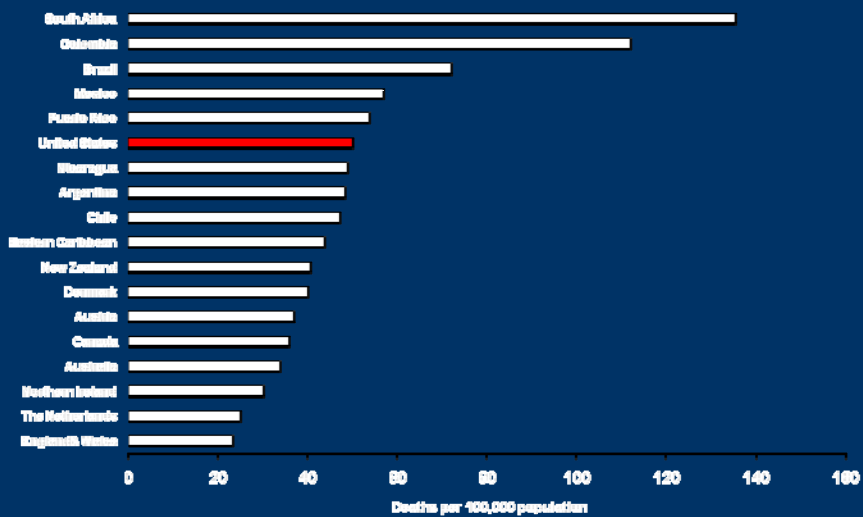
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# Dollars & Sense of Preventing Injury, Violence and Substance Abuse

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## Age-Adjusted Injury Death Rates



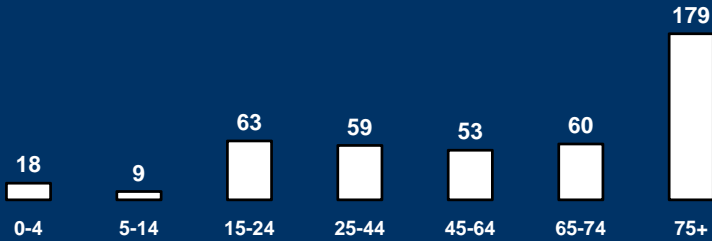
Source: Lois Fingerhut, NCHS, based on 2000-2004 data

## 10 Leading Causes of Death by Age Group, United States – 2006

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Congenital Anomalies 5,819	Unintentional Injury 1,816	Unintentional Injury 1,844	Unintentional Injury 1,214	Unintentional Injury 11,227	Unintentional Injury 14,864	Unintentional Injury 17,524	Malignant Neoplasms 50,334	Malignant Neoplasms 101,454	Heart Disease 510,542	Heart Disease 631,638
2	Short Gestation 4,841	Congenital Anomalies 515	Malignant Neoplasms 459	Malignant Neoplasms 448	Homicide 5,717	Suicide 4,985	Malignant Neoplasms 13,917	Heart Disease 38,095	Heart Disease 65,477	Malignant Neoplasms 387,515	Malignant Neoplasms 559,888
3	SIDS 2,323	Malignant Neoplasms 377	Congenital Anomalies 182	Homicide 241	Suicide 4,189	Homicide 4,725	Heart Disease 12,339	Unintentional Injury 19,675	Chronic Low Respiratory Disease 12,375	Cerebrovascular 117,010	Cerebrovascular 137,119
4	Maternal Pregnancy Comp. 1,883	Homicide 366	Homicide 149	Suicide 218	Malignant Neoplasms 1,564	Malignant Neoplasms 3,656	Suicide 8,591	Liver Disease 7,712	Unintentional Injury 11,446	Chronic Low Respiratory Disease 106,845	Chronic Low Respiratory Disease 124,583
5	Unintentional Injury 1,147	Heart Disease 161	Heart Disease 90	Heart Disease 163	Heart Disease 1,076	Heart Disease 3,307	HIV 4,010	Suicide 7,422	Diabetes Mellitus 1,432	Alzheimer's Disease 71,660	Unintentional Injury 121,299
6	Placenta Cord Membranes 1,149	Influenza & Pneumonia 125	Chronic Low Respiratory Disease 52	Congenital Anomalies 182	Congenital Anomalies 182	HIV 1,182	Homicide 3,029	Cerebrovascular 6,341	Cerebrovascular 10,518	Diabetes Mellitus 52,351	Diabetes Mellitus 72,449
7	Respiratory Disease 825	Septicemia 88	Cerebrovascular 45	Chronic Low Respiratory Disease 63	Cerebrovascular 210	Diabetes Mellitus 673	Liver Disease 2,551	Diabetes Mellitus 5,692	Liver Disease 7,217	Influenza & Pneumonia 49,346	Alzheimer's Disease 72,432
8	Bacterial Septis 807	Perinatal Period 65	Influenza & Pneumonia 40	Cerebrovascular 50	HIV 206	Cerebrovascular 527	Cerebrovascular 2,227	HIV 4,377	Suicide 4,992	Nephritis 37,377	Influenza & Pneumonia 56,326
9	Neonatal Hemorrhage 618	Benign Neoplasms 40	Septicemia 44	Septicemia 44	Influenza & Pneumonia 184	Congenital Anomalies 437	Diabetes Mellitus 2,094	Chronic Low Respiratory Disease 3,524	Nephritis 4,368	Unintentional Injury 38,689	Nephritis 45,344
10	Circulatory System Disease 543	Cerebrovascular 54	Benign Neoplasms 38	Benign Neoplasms 38	Complicated Pregnancy 179	Influenza & Pneumonia 335	Septicemia 870	Viral Hepatitis 2,911	Septicemia 4,032	Septicemia 26,201	Septicemia 34,234

Source: National Vital Statistics System, National Center for Health Statistics, CDC.  
Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

## Injury Death Rate by Age Group



- **Costs of injury & substance abuse**
- **Savings from prevention**

## **Why Cost Social Problems? Single Compact Metric**

- **Communication**
- **Problem size & risk assessment**
- **Advocacy**
- **Performance comparison**
- **Priority setting & resource allocation**
- **Program evaluation**

## **You are the Governor of PA**

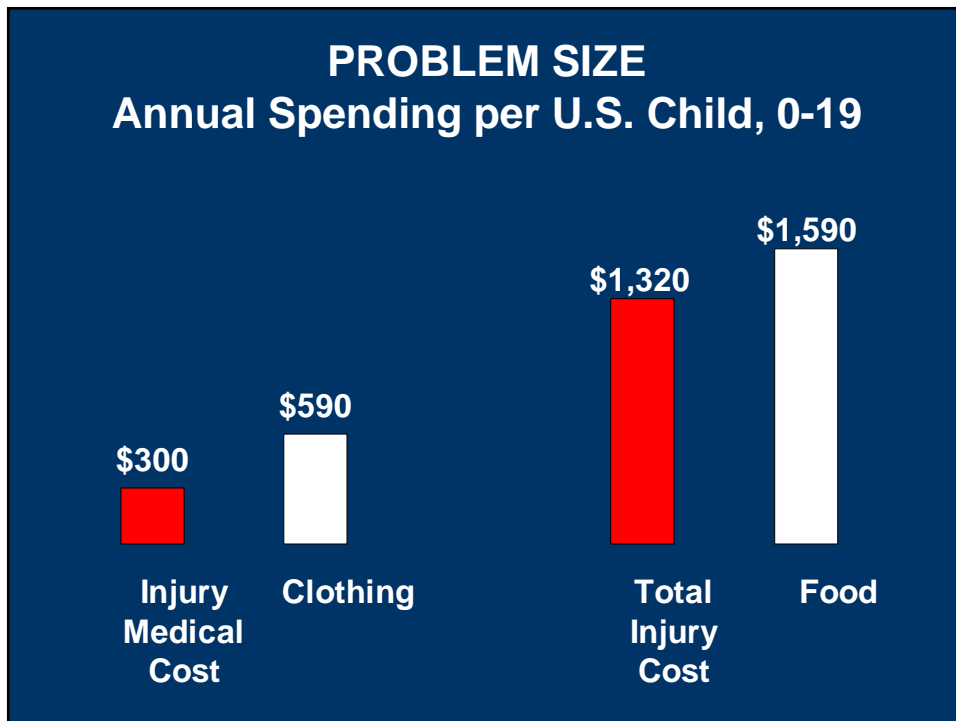
- **12.5 M residents in PA**
- **125K deaths/year**
- **Can I convince you to continue my \$2M childhood injury prevention program?**

- **We did a thorough evaluation. The results are highly significant statistically. Our program reduced deaths and hospital admissions due to injury by**

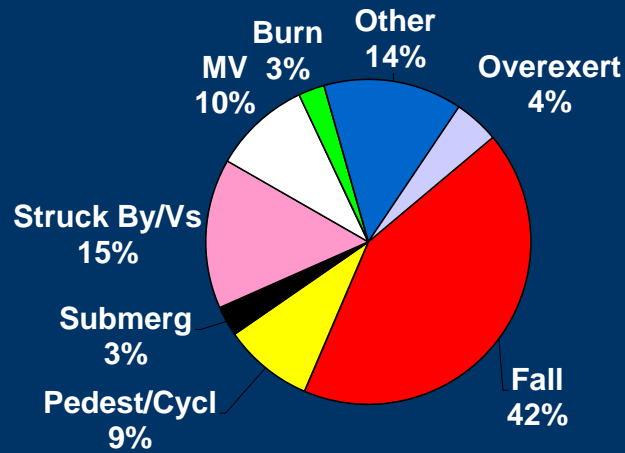
**1% !!!**

- **Our program prevented 76 child deaths and 1820 hospital admissions last year.**

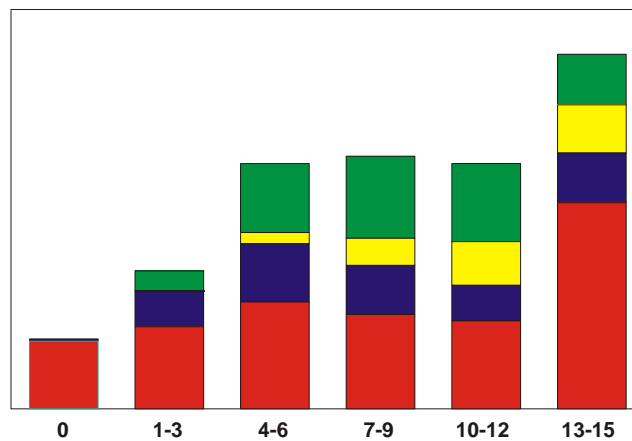
- **Our \$2 M program saved PA taxpayers \$106 M in medical payments and work losses last year. That's more than \$8 per PA resident.**



## RISK ASSESSMENT: Unintentional Injury Cost \$134 B in 2000, Ages 0-14

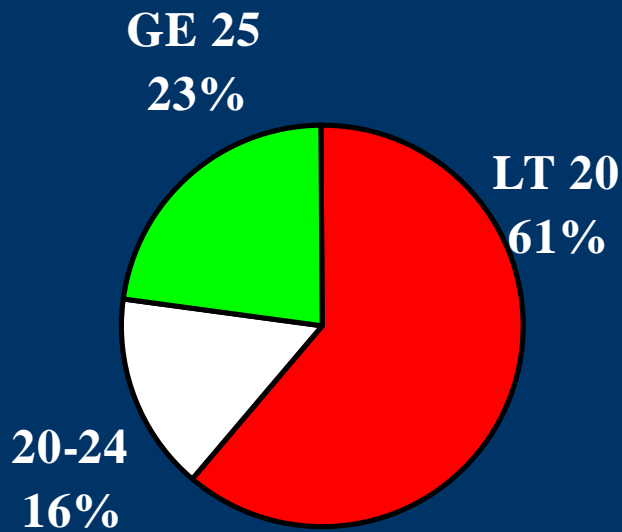


## Vehicular Injury Costs/1000 Kids by Age



■ Occupant 
 ■ Other NonOccupant 
 ■ Pedalcycle-MV 
 ■ NonMV Cycle

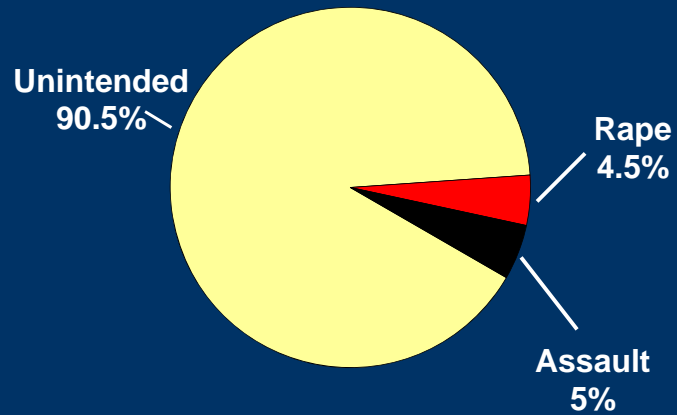
## Driver Age, Crashes w/Injured Teen Passengers



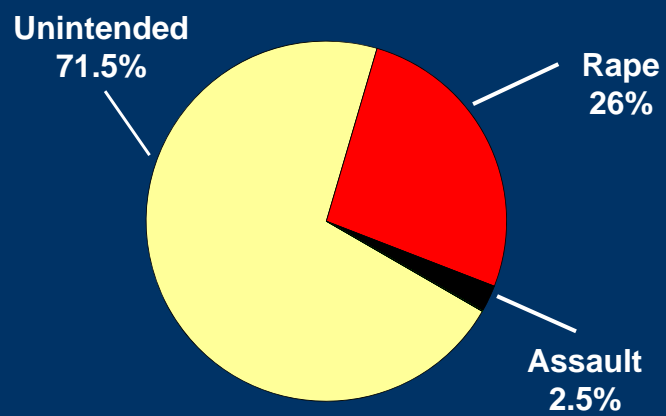
## Annual Poisoning Costs/Child



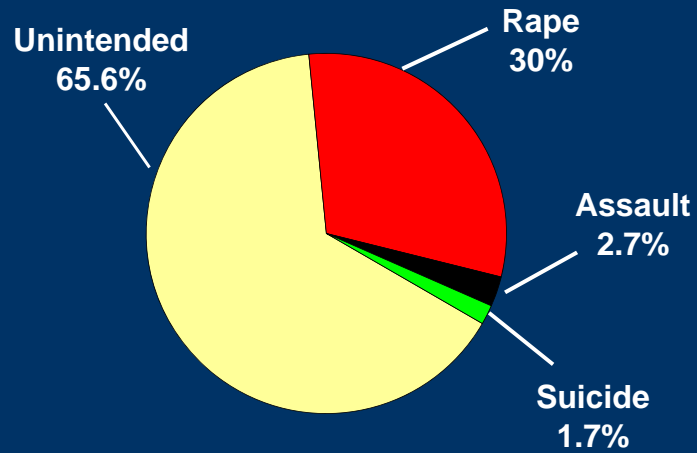
## Cost of Injuries, Ages 0-4 \$51 B, 2000



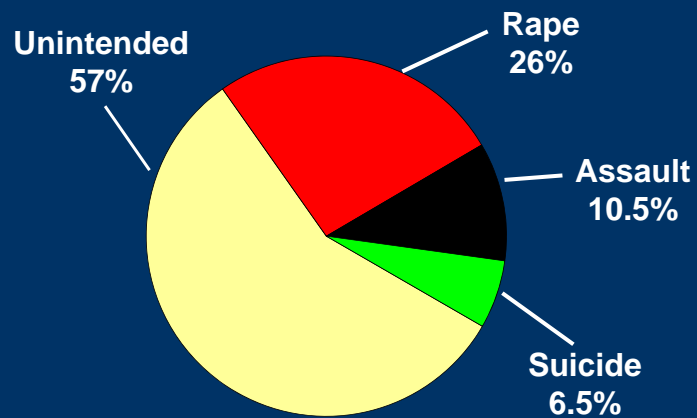
## Cost of Injuries, Ages 5-9 \$52 B, 2000



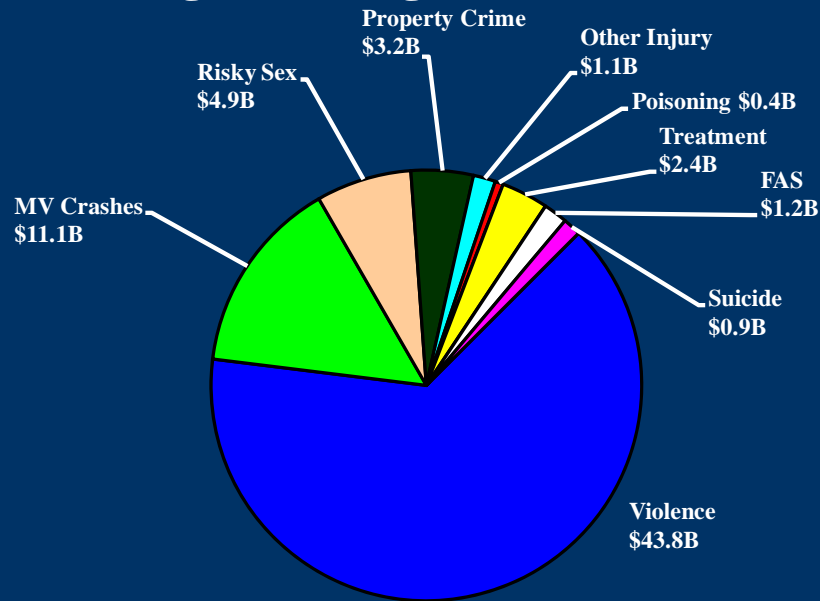
## Cost of Injuries, Ages 10-14 \$79 B, 2000



## Cost of Injuries, Ages 15-19 \$121 B, 2000



## Advocacy Underage Drinking Cost \$65 B in 2007



How can we make \$65 B  
comprehensible?



## Use A Yardstick

**\$65B**

**Underage  
drinking**

**\$70B**

**US Depts Justice  
& Education**

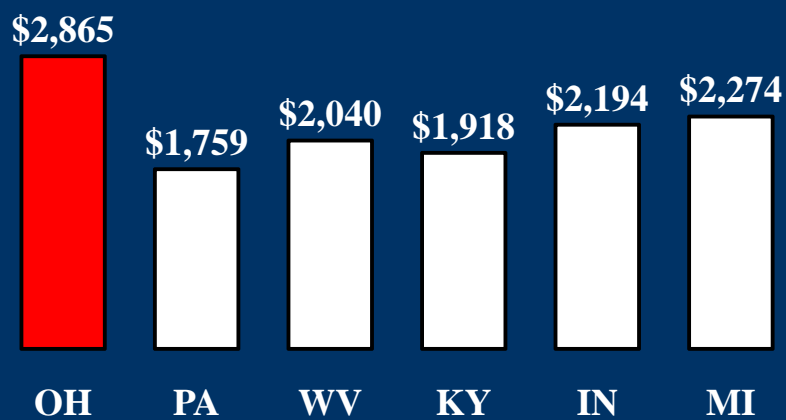
## Divide by a Sensible Exposure Measure

- **\$5100 Per Underage Drinker**
- **\$2280 Per Youth Ages 14-20**
- **\$3.30 Per Illegal Drink**

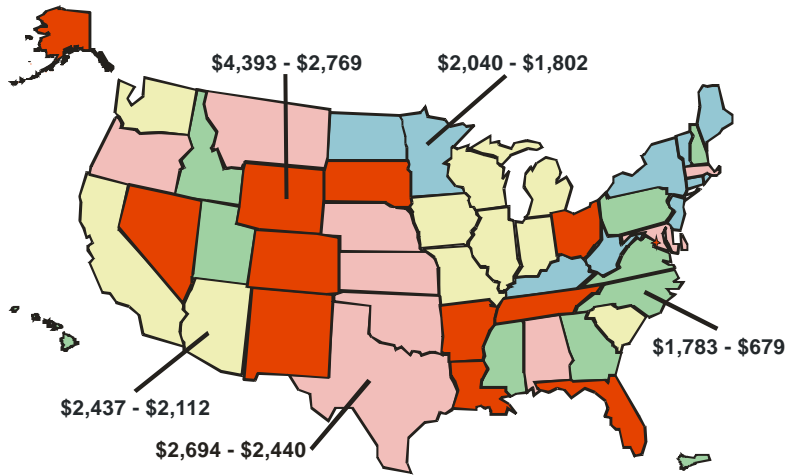
## Per Illegal Underage Drink



## Performance Comparison: \$/Youth



## Costs of Underage Drinking per Youth Ages 14-20



## Gunshot Cost Per Resident

**\$490**

**US**

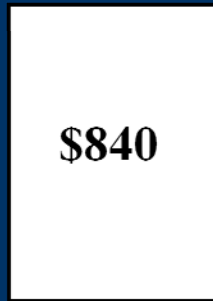
**\$180**

**Canada**

## Gunshot Costs Per Gun

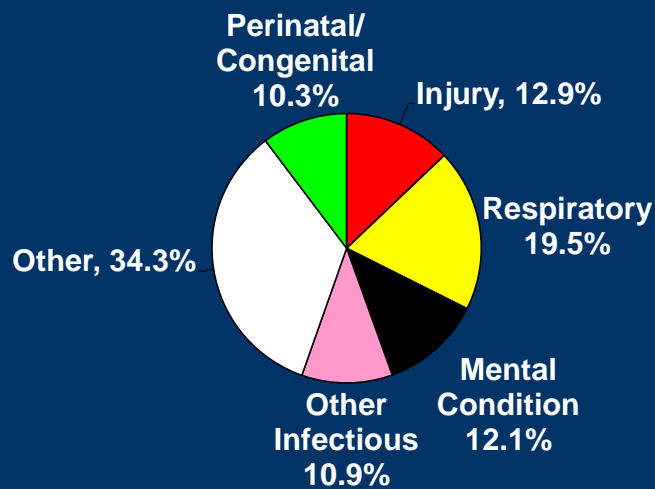


**US**



**Canada**

## BROAD PRIORITY SETTING Medical Spending, Ages 0-19, 2000



## Resource Allocation

### Leading Consumer products by % of nonfatal injury cost, US, 1995-1996

Rank	Age < 1	%	Age 1 - 4	%
1	Stairs or steps	15	Stairs or steps	8
2	Beds (not cribs)	11	Beds	7
3	Floors	9	Floors	7
4	Baby walkers	6	Tables	6
5	Tables	5	Doors	5
6	Baby strollers	4	High chairs & chairs	4
7	Sofas	4	Poisoning	3
8	Car seats	3	Bicycles	3

### Leading Consumer Products by % of Nonfatal Injury Cost, US, 1995-1996

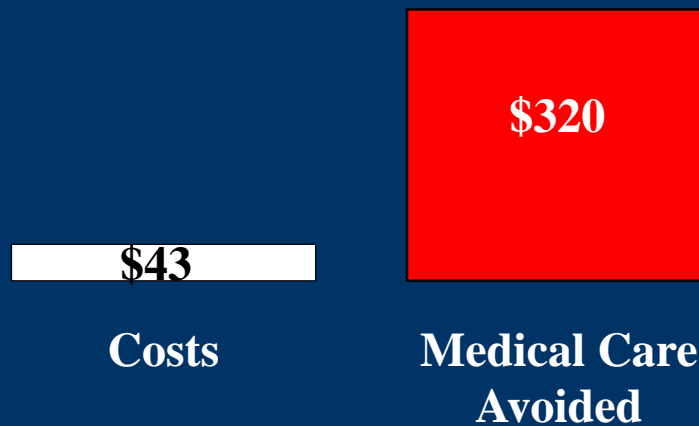
Rank	Ages 5 - 9	%
1	Bicycles	14
2	Monkey bars	6
3	Swings	4
4	Beds	4
5	Doors	4
6	Stairs or steps	4
7	In-line/rollerskating	4
8	Floors	4

## Leading Consumer Products by % of Nonfatal Injury Cost, US, 1995-1996

Rank	Age 10 – 14	%	Age 15 - 19	%
1	Bicycles	13	Basketball	15
2	Basketball	11	Football	11
3	Football	9	Bicycles (incl. mountain)	6
4	Baseball & softball	6	Baseball & softball	5
5	In-line/ rollerskating	5	Stairs or steps	4
6	Soccer	3	Soccer	4
7	Stairs or steps	3	Floors	2
8	Trampolines	2	In-line/ rollerskating	2

## Program Evaluation

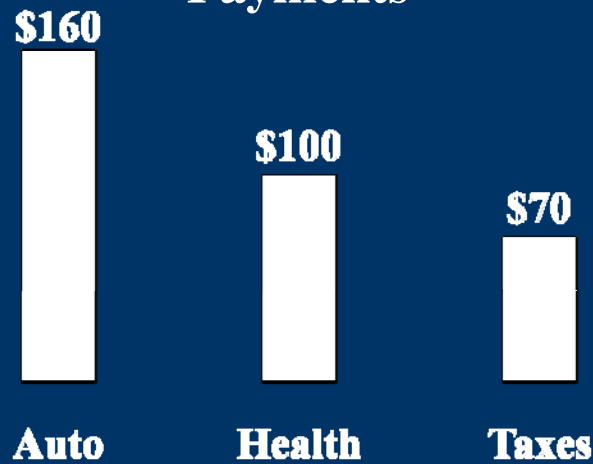
### A Poison Control Center Call



## Regional Trauma Care Raises Initial Care Costs by \$1,850/Admission, Saving \$5,100



## The Average Child Seat Saves \$330 in Insurance and Tax Payments



- **Costs are estimated from a perspective**

- **Society**
- **Government**
- **Insurers**
- **Employers**



- **Incidence-based costs**

- **Lifetime consequences of injuries in one year**
- **Measure savings from prevention**
- **Must be discounted to present value**

## • Discount Rate

### ▪ \$1 million in 20 years

2.5%                      \$625,000

7%                              \$275,000

## Burden Categories

### • ECONOMIC COSTS

#### ▪ Medical & mental health

#### ▪ Other resources/ Tangible

- Emergency services
- Victim services
- Legal/court/jail
- Insur Admin

#### • Property damage

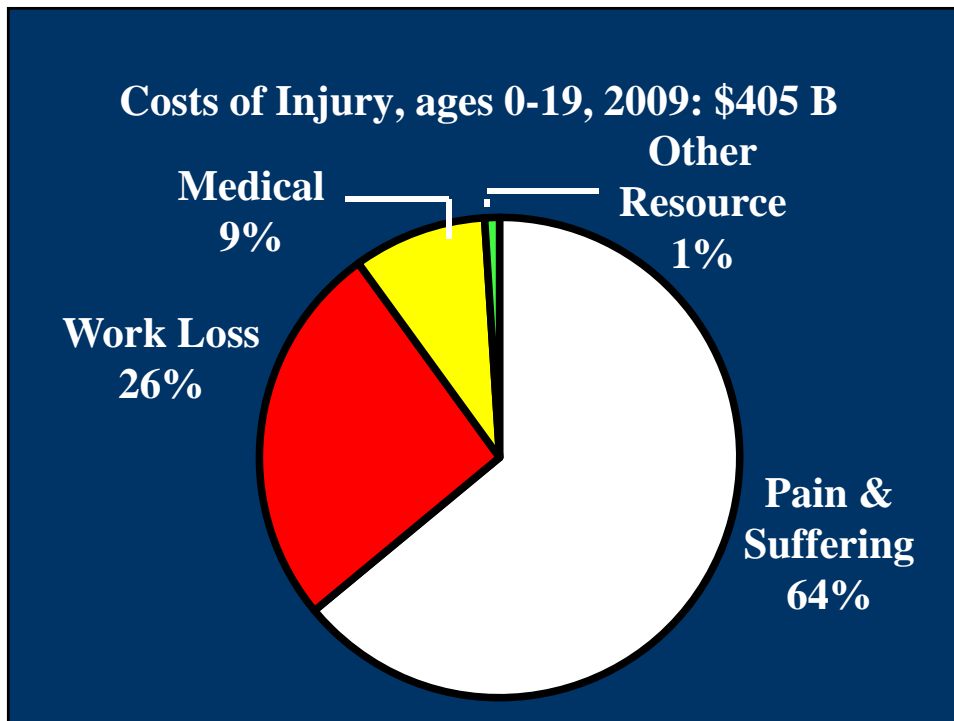
#### ▪ Work loss (productivity)

- Wage work
- Household work

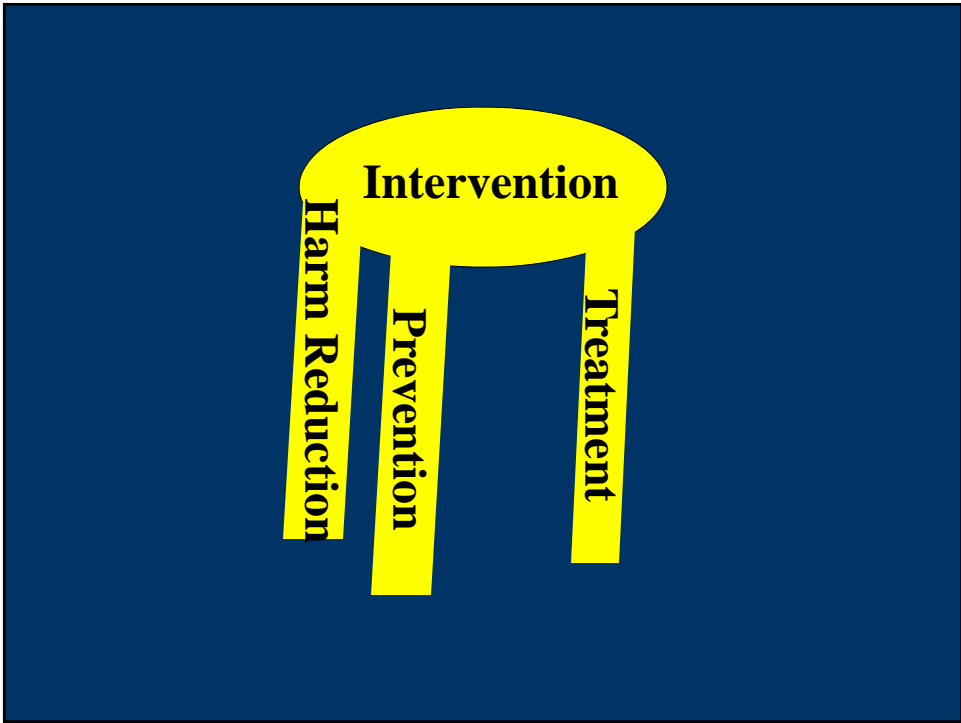
### • QUALITY OF LIFE

## Which Injury Cost Is Largest

- A. Medical cost
- B. Lifetime work loss
- C. Quality of Life
- D. Other resource costs including property damage



# COST EFFECTIVENESS



## 160 Interventions

	Youth	Adult	Youth & Adult	Total
Motor Vehicle	10	0	28	38
Impaired Driver	1	10	0	11
Open Flame/Burn	1	0	8	9
Violence	15	17	2	34
Other Injury	6	2	3	11
Substance Abuse	22	4	10	36
Tobacco	4	17	0	21
Total	59	50	51	160

## Data Sources

- **US & some international published and unpublished studies from 1987-2010**
  - Medline & Internet search
  - Bibliographic review
  - Contact with Federal agencies
- **Excluded analyses of occupational, air, rail, & water transport safety programs**

## Methods

- **Costs take society's viewpoint (everyone's costs count)**
- **Costs given in 2009 dollars**
- **Savings from demonstration programs reduced by 25% when scaled up**

## Methods

- **Serious study flaws were corrected when possible**
- **Studies were subjectively graded based on the rigor of program cost and effectiveness estimates**
- **Studies which showed reductions in fatalities, but ignored nonfatal injuries were excluded**

## Definitions: Costs and Savings

- *Cost per Unit*: cost of the intervention for a single individual
- *Total Benefits per Unit*: the amount the intervention saved by preventing injuries & other problems
- **Aggregate Benefit/Unit = Total Benefits - Cost**
- *Benefit Cost Ratio (BCR)*: savings from preventing injuries divided by cost of the intervention
- *Cost-effective*: the  $BCR > 1.0$   
Return on investment in the intervention exceeds amount invested

## Definitions: Costs and Savings

- *Cost per Quality Adjusted Life Year (Cost of intervention – medical & other resource savings)/ QALY*: A QALY is a health outcome measure that assigns a value of 1 to a year of perfect health & 0 to death. The QALY measure captures the work loss & quality of life savings
- *Cost-saving*:  $\text{cost}/\text{QALY} < 0$  which means that the cost of the intervention is less than the savings generated in medical and other resource costs

## Choosing Interventions

- We recommend interventions with a BCR <2 or cost/QALY > \$100,000 should rarely be implemented
- Some interventions with low BCRs may address unique component of injury problem
- Laws generally would have lower costs & higher BCRs from a government perspective

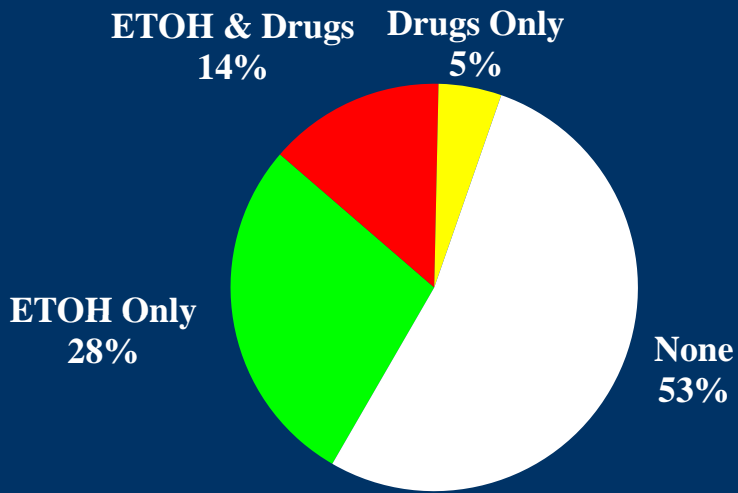
## Notable Newly Added Interventions

	BCR
20-Bed Domestic Violence Shelter	11
Speed Camera	19
Red Light Camera	4
Sprinklers in New Ranch House	6
Sprinklers in New Colonial or Town House	3
Mattress Flammability Standard	3
Baby Walker Redesign - Less Falls Down Stairs	46
Impact-Absorbing Playground Surfacing	2

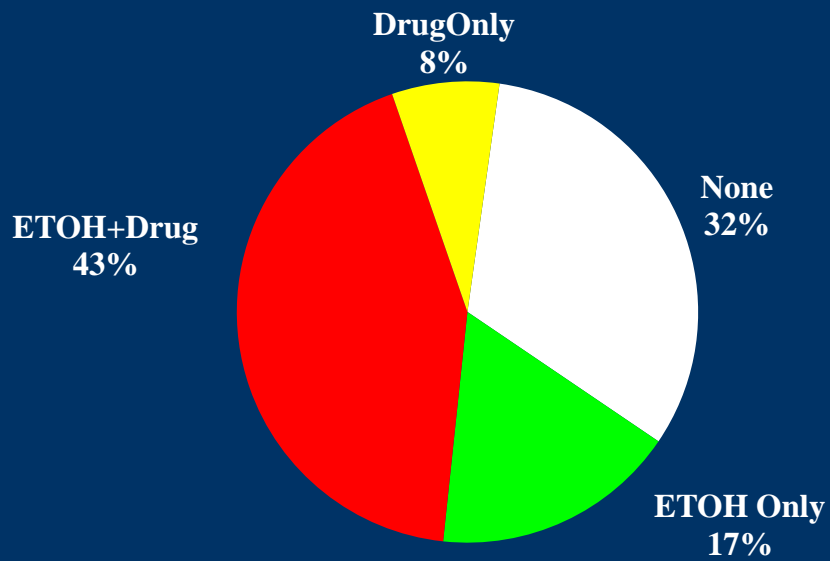


<b>NON-OFFENDER VIOLENCE PREVENTION</b>	<b>Cost/ child</b>	<b>BCR</b>
<b>Nurse-family partnership home visitation to 1<sup>st</sup> born</b>	<b>\$10,700</b>	<b>4.8</b>
<b>Parent-teacher training</b>	<b>\$4,600</b>	<b>3.9</b>
<b>Big brothers-big sisters mentoring</b>	<b>\$4,800</b>	<b>1.8</b>
<b>Head start + 12 home visits</b>	<b>\$20,000</b>	<b>4.9</b>

## Violence often is part of a problem complex Cost of Violence



## Cost of Youth Crime

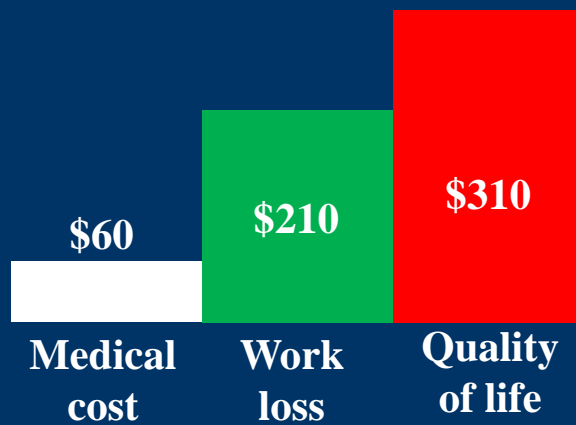


<b>JUVENILE VIOLENCE MEASURES</b>	<b>Other Impact</b>	<b>BCR</b>
<b>Treatment foster care</b>	<b>Y</b>	<b>65</b>
<b>Multisystemic therapy</b>	<b>Y</b>	<b>39</b>
<b>Functional family therapy</b>	<b>Y</b>	<b>32</b>
<b>Aggression replacement training</b>	<b>N</b>	<b>90</b>
<b>Adolescent diversion</b>	<b>N</b>	<b>39</b>
<b>Intensive probation supervision</b>	<b>N</b>	<b>4.4</b>
<b>Boot Camp</b>	<b>N</b>	<b>0.1</b>
<b>Scared Straight</b>	<b>N</b>	<b>0</b>

<b>ADULT VIOLENCE MEASURES</b>	<b>Other Impact</b>	<b>BCR</b>
<b>Moral reconnection therapy</b>	<b>Y</b>	<b>31</b>
<b>Job @ release</b>	<b>N</b>	<b>11</b>
<b>Drug Court</b>	<b>Y</b>	<b>4</b>
<b>In-prison SA treatment</b>	<b>Y</b>	<b>3</b>
<b>Optimized sentencing</b>	<b>N</b>	<b>2</b>
<b>In-prison voc educ</b>	<b>?</b>	<b>9</b>
<b>Money aid at release</b>	<b>N</b>	<b>3</b>
<b>Nonincarc intensive supervision</b>	<b>N</b>	<b>1.4</b>
<b>Community SA treatment</b>	<b>N</b>	<b>0</b>



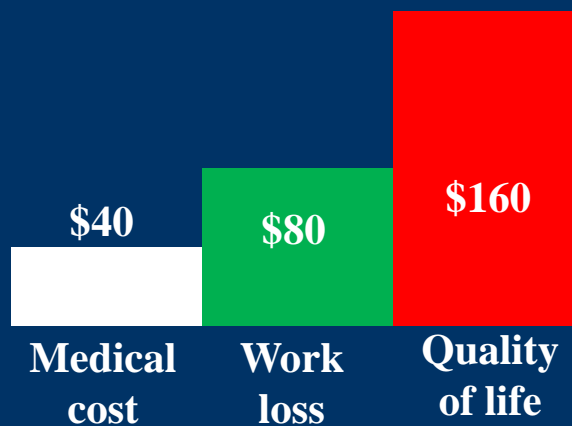
**A \$12 bike helmet for kids 0-4  
saves \$580 (BCR 48)**



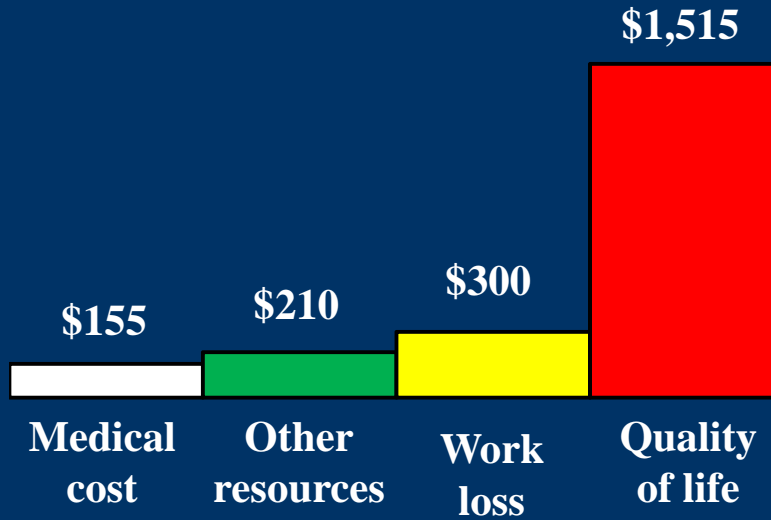
## A \$12 Bike Helmet for Kids 3-14 Saves Insurers \$41



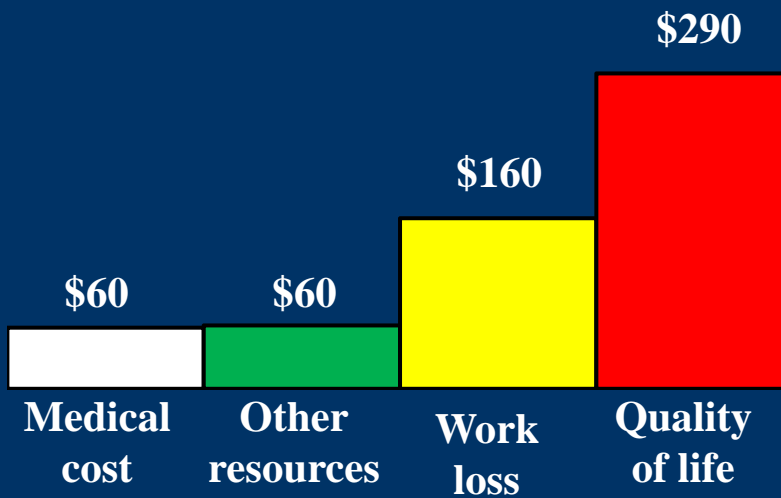
## A \$19 bike helmet for ages 15 & above saves \$280 (BCR 16)



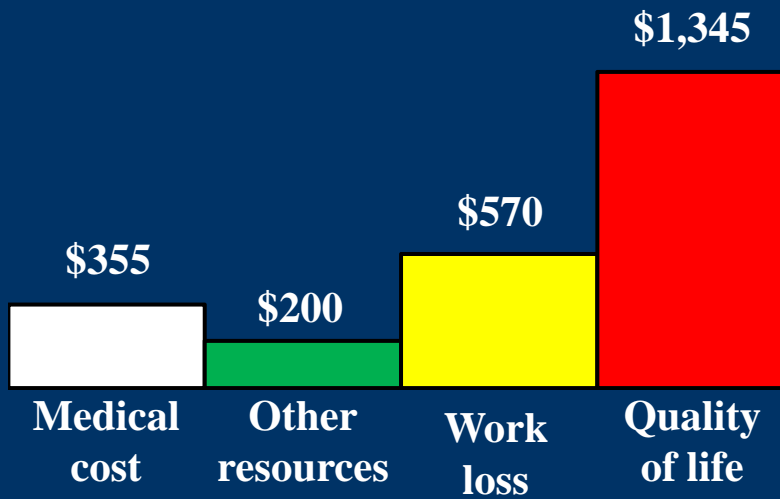
**A \$52 child seat saves \$2,180 (BCR 42)**



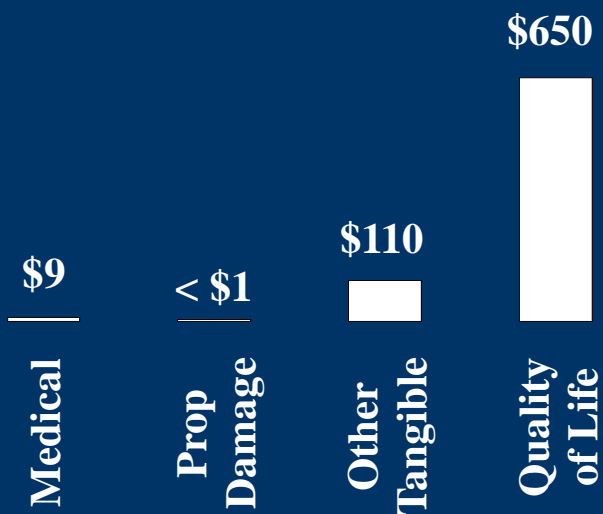
**Misuse Reduction (Latch System + Installation Checks) Saves \$570/seat & Costs \$7 (BCR 81)**



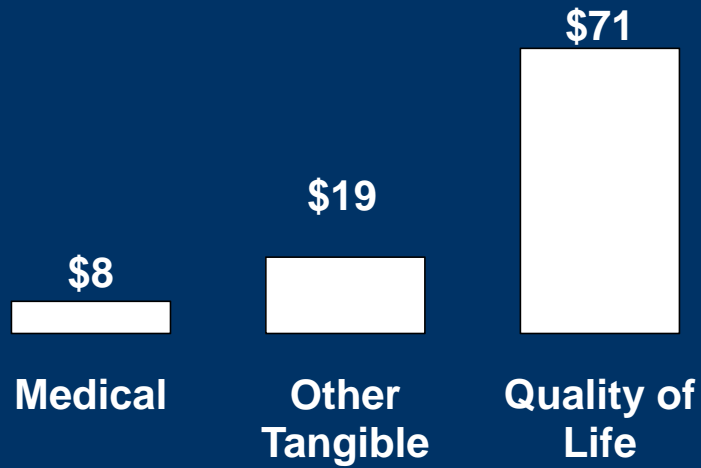
**A booster seat with back costs \$35  
and saves \$2,470 (BCR = 71)**



**Equipping A Home with Smoke Alarms +  
Maintenance Costs \$44 & Saves \$770 (BCR 18)**



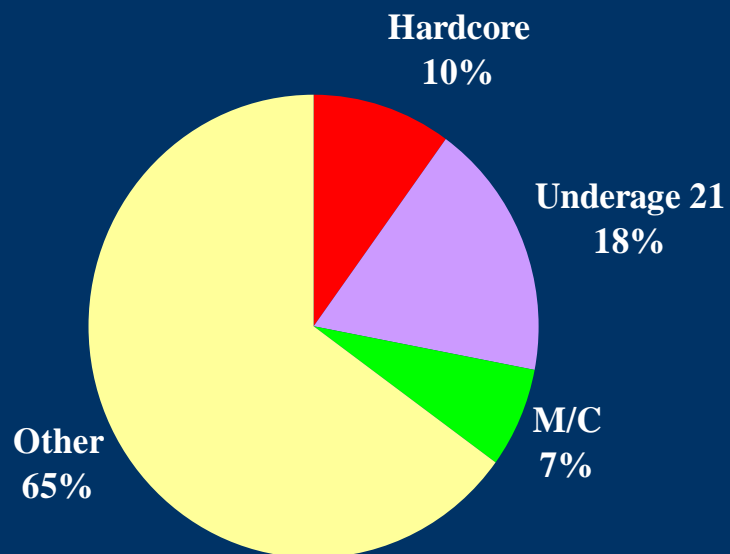
**American Academy of Pediatrics TIPP Sheet  
Counseling for Ages 0-4 Costs \$11/Visit  
& Saves \$100/Visit (BCR 9)**



## Program Selection

- No one intervention will reduce most problems more than 10%-15%
- Need a package of complementary interventions

## DWI Deaths

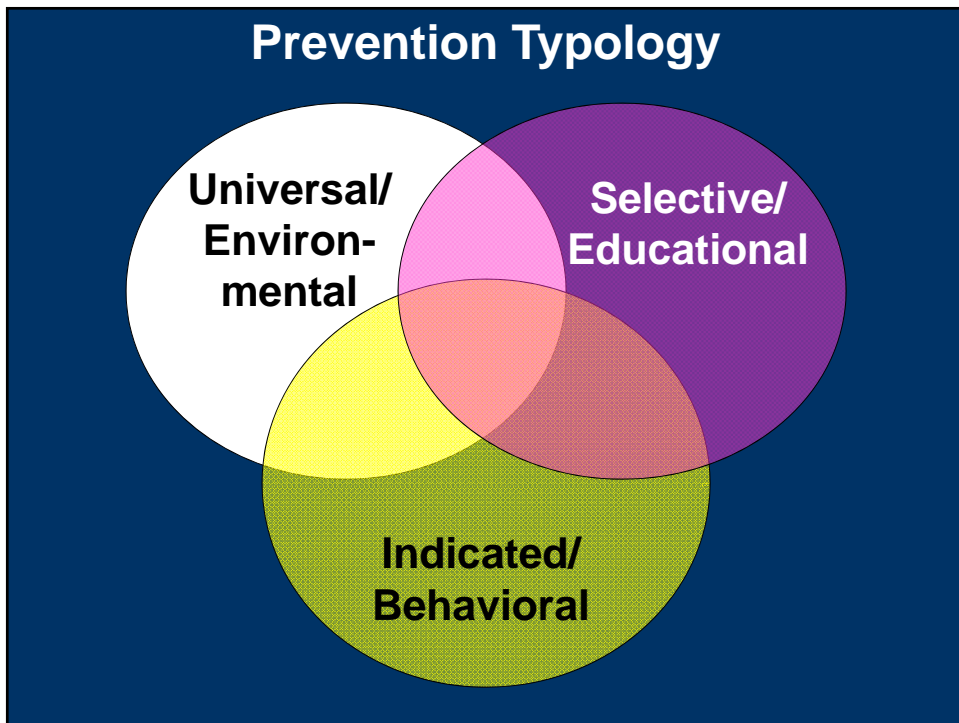


	<b>% Redux DWI Deaths</b>	<b>BCR</b>
<b>ALL DRIVERS</b>		
<b>Enforce SIP Laws</b>	<b>11%</b>	<b>71</b>
<b>Admin License Revoc</b>	<b>6.5%</b>	<b>17</b>
<b>.08 Max Driver BAC</b>	<b>7%</b>	<b>14</b>
<b>Intensive Breath Tests</b>	<b>15%</b>	<b>7</b>
<b>Server Training</b>	<b>17%</b>	<b>3.4</b>
<b>YOUTH</b>		
<b>0-Tolerance LT 21</b>	<b>4% (20%)</b>	<b>25</b>
<b>Grad License/Curfew</b>	<b>2% (5%)</b>	<b>8</b>
<b>21 MLDA</b>	<b>4% (19%)</b>	<b>3.6</b>



<b>RECIDIVISTS</b>	<b>% Redux DWI Deaths</b>	<b>BCR/ ROI</b>
<b>Ignition Interlock</b>	<b>7%</b>	<b>7</b>
<b>Impoundment</b>	<b>4%</b>	<b>5</b>
<b>Intensively Supervised Treatment</b>	<b>4%</b>	<b>4</b>
<b>House Arrest</b>	<b>3%</b>	<b>3</b>
<b>BROADER IMPACT</b>		
<b>Child Seat Law</b>	<b>LT 1%</b>	<b>42</b>
<b>M/C Helmet Law</b>	<b>2.5%</b>	<b>3</b>
<b>Primary Belt Law</b>	<b>10%</b>	<b>18</b>

<b>BROADER MEASURES</b>	<b>% Redux DWI Deaths</b>	<b>BCR/ ROI</b>
<b>Regional Trauma System</b>	<b>14%</b>	<b>2.7</b>
<b>Brief ETOH Intervention</b>	<b>6%</b>	<b>31</b>
<b>20% Tax on ETOH</b>	<b>4%</b>	<b>9</b>
<b>30% Tax on ETOH</b>	<b>6%</b>	<b>6</b>



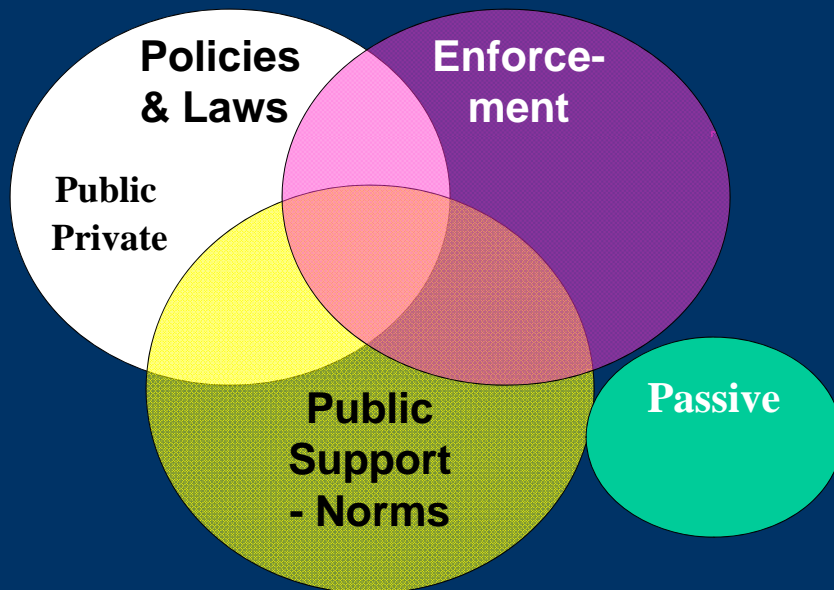
<b>BCRs for School-Based Programs (T=tobacco, V=Violence)</b>				
<b>PROGRAM</b>	<b>Cost/ Kid</b>	<b>MJ redux</b>	<b>Alc redux</b>	<b>BCR</b>
<b>All Stars T</b>	<b>\$170</b>	<b>6%</b>	<b>7%</b>	<b>36</b>
<b>Keepin' It Real T</b>	<b>\$160</b>	<b>5%</b>	<b>11%</b>	<b>28</b>
<b>Life Skills Training T</b>	<b>\$270</b>	<b>3%</b>	<b>1%</b>	<b>22</b>
<b>Project Northland T</b>	<b>\$490</b>	<b>7%</b>	<b>7%</b>	<b>19</b>
<b>Project Star Midwest Prev Pgm T</b>	<b>\$490</b>	<b>7%</b>	<b>3%</b>	<b>11</b>
<b>Project Alert</b>	<b>\$140</b>	<b>4%</b>	<b>0%</b>	<b>4</b>

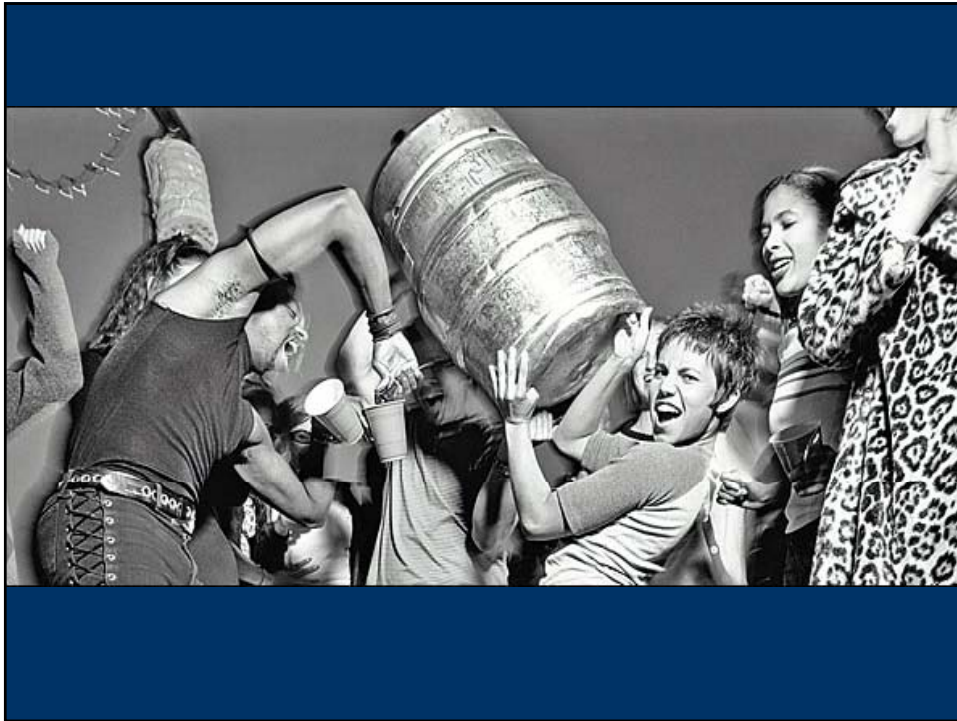
<b>BCRs for Youth Development Programs</b>				
<b>PROGRAM</b>	<b>Cost/ Kid</b>	<b>MJ redux</b>	<b>Alc redux</b>	<b>BCR</b>
<b>Family Matters T</b>	<b>\$190</b>	<b>?</b>	<b>7%</b>	<b>32</b>
<b>FamilyStrengtheningT</b>	<b>\$1100</b>	<b>15%</b>	<b>18%</b>	<b>11</b>
<b>AdolescentTransitionsT</b>	<b>\$1500</b>	<b>?</b>	<b>14%</b>	<b>8</b>
<b>SocialCompetncPromo</b>	<b>\$430</b>	<b>?</b>	<b>11%</b>	<b>6</b>
<b>SOAR V Dropout</b>	<b>\$3700</b>	<b>2%</b>		<b>6</b>
<b>Child Development Pjt</b>	<b>\$280</b>	<b>4%</b>	<b>4.5%</b>	<b>5</b>
<b>Guiding Good Choices (Prep f/Drug-FreeYrs) V</b>	<b>\$870</b>	<b>9% (0%)</b>	<b>8%</b>	<b>3</b>

## Lower Return on Investment

- **Project TND (Toward No Drugs) 0%, D**
- **STARS for families 8% binge**
- **CASASTart costs more than it saves**
- **Across Ages – razor-thin savings**

## Environmental Prevention





<b>BCRs for Environmental Interventions (costs &amp; benefits computed comparably)</b>	
	<b>BCR</b>
<b>20% Alcohol Tax</b>	<b>9</b>
<b>30% Alcohol Tax</b>	<b>6</b>
<b>Reduce Outlet Density by 10%</b>	<b>9</b>
<b>Restrict Alcohol Sales Hours/Days</b>	<b>9</b>
<b>TV Alcohol Advertising Ban</b>	<b>9</b>
<b>21-Minimum Drinking Age</b>	<b>4</b>
<b>Enforce Serving Intoxicated Patrons Law</b>	<b>71</b>
<b>Mandatory Server Training</b>	<b>3</b>

## **BCRs for Workplace Programs, Often Oriented to Young Workers**

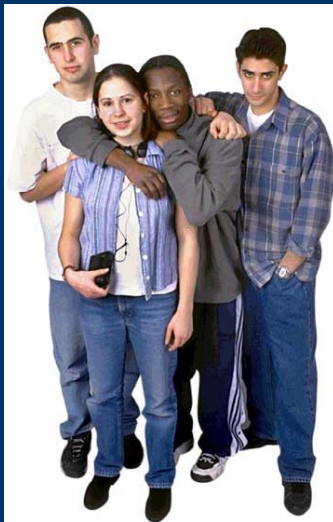
<b>Prime Life</b>	<b>22</b>
<b>Team Resilience, Restaurant Sector</b>	<b>15</b>
<b>Team Awareness, Retail Sector</b>	<b>8</b>
<b>Workplace Peer Support &amp; AOD Testing</b>	<b>24</b>

- Evaluations often do not assess some impacts, notably for midnight driving curfew, 0-tolerance, .08, family programs**

## Program Selection Criteria

- Return on investment
- Aggregate benefits
- Affordability
- Local priorities & problems
- Appropriateness for the target population
- Political feasibility
- Government savings
- Immediacy of the impacts (weeks versus years)
- Intervention overlap
- Unevaluated spillover effects

## 21 Minimum Drinking Age

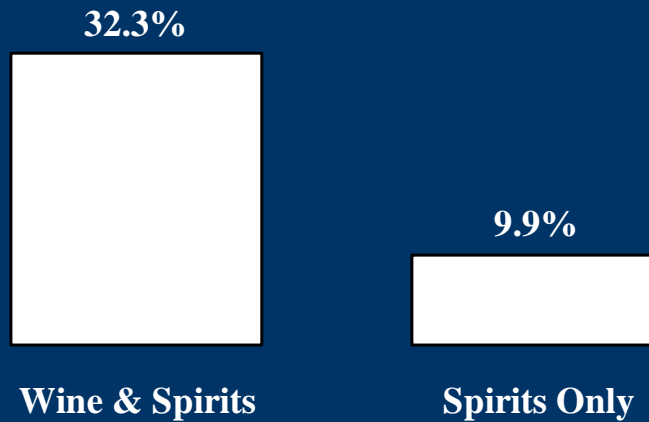


## **21 Minimum Drinking Age**

- **Reduces % of youth who drink & binge**
- **Raises age of initiation which lowers the risk of alcoholism in adulthood**
- **Reduces youth DWI deaths by 19%**
- **Reduces alcohol-involved youth suicides by 27%**

- **Confuses college presidents**

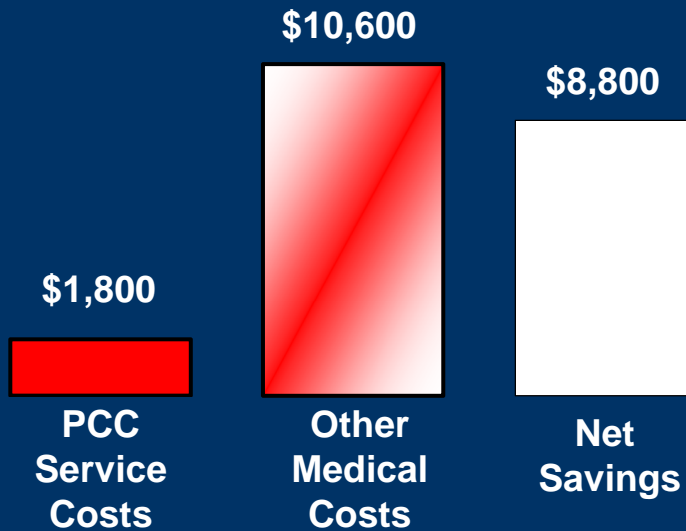
## **Retail Alcohol Monopolies (State Stores) Reduce Underage Drinking**



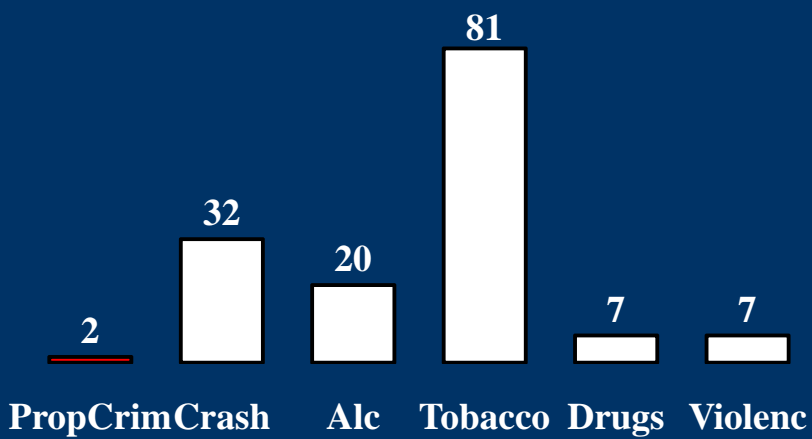
## **If Sell Off Retail Spirits Monopolies in VA or WA**

- **Spirits consumption rises 21%**
- **Total consumption rises 6-7%**
- **State loses \$200-300M/year in revenue net of taxes on added sales**
- **The real price is a crime wave**
- **State pays \$50 million/year for added harm; 225 residents die/year**
- **Industry's slides are bogus; label 6 states w/o retail monopolies as control states**

43 human exposure calls from rural areas prevent one hospital admission (Medical ROI 5.9)



BCR for State to break even on its investment



- **Laws that interfere with personal freedom would have much higher BCRs if looked at governmental perspective only**
- **The job of the State is to protect and enhance the welfare of its citizens**
- **Like medical care, preventive health & safety efforts are designed to save lives & increase quality of life**
- **The savings to citizens & employers count**

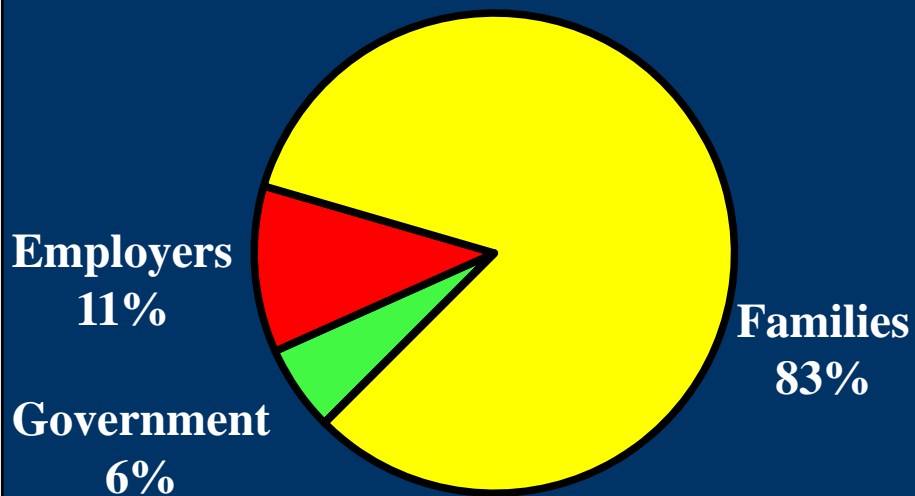
## **Costs to Government**

- **Medicaid, CHIP, Medicare, etc. – 6% state**
- **Income taxes – perhaps 4% of wages**
- **Welfare; lost sales taxes**
- **Victim assistance**
- **Police, fire, EMS, road cleanup & repair**
- **Adjudication & sanctioning; CPS**
- **Education system (special ed, truancy)**
- **State as employer**

## If target intervention to Medicaid recipients

- 25%-50% of medical care savings go to the state

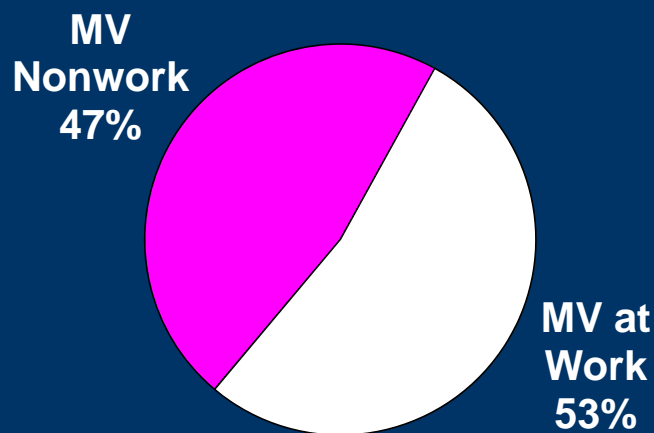
## Who pays the annual \$500B crash bill?



## Costs to Government as Employer

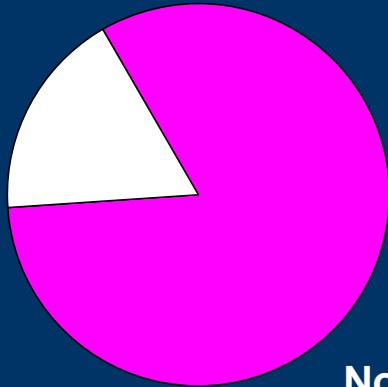
- Workers' Comp, health insurance, sick leave
- Disability & life insurance
- Liability if an on-the-job employee harms others
- Investigation of on-the-job incidents
- Distraction
- Work disruption, juggling schedules, hiring
- Employees who abuse drugs & alcohol are less productive

## Crashes Cost Employers \$62 Billion/Year



## Fringe Benefit Payments

MV at  
Work  
18%



MV  
Nonwork  
82%

## Crash Injuries/1000 Working Adults/Year (Including Dependents)

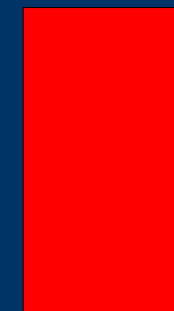
Main Reason =  
Exposure: Most Miles  
Are Driven Outside  
Work

3



While Working

38



Not at Work

**Where does that \$62 billion  
come from?**

**Profits  
Price Increases**

### **Online Resources**

- ROI fact sheets, costs of child abuse & neglect by state at [http://www.childreussafetynetwork.org/publications\\_resources/showPubByTopic.asp?pkTopicID=10](http://www.childreussafetynetwork.org/publications_resources/showPubByTopic.asp?pkTopicID=10)
- Underage drinking by State (+DC, PR) – [www.udetc.org/factsheets](http://www.udetc.org/factsheets)
- Hospitalized injury by cause & age group in 38 states, 2007; impaired driving in 50 + DC – [www.hsc.wvu.edu/icrc/AHRQFORM.asp](http://www.hsc.wvu.edu/icrc/AHRQFORM.asp)
- Report on SA prevention ROI -- <http://store.samhsa.gov/product/SMA07-4298>
- Crime costs by state, total or alcohol & drug involved : e-mail [taylor@pire.org](mailto:taylor@pire.org) (also use that address for problems or free technical assistance. Dexter Taylor, PhD, 301-755-2796)

## References: Injury Costs & Prevention Savings

- **The Cost of Child and Adolescent Injuries and The Savings from Prevention, T Miller, E Finkelstein, E Zaloshnja, D Hendrie. In K Liller (ed.), *Injury Prevention for Children and Adolescents: Research, Practice, and Advocacy*, Washington DC: American Public Health Association, 15-64, 2005.**
- **Incidence and Economic Burden of Injuries in the United States, 2000, with E Finkelstein, P Corso, T Miller, I Fiebelkorn, E Zaloshnja, B Lawrence. New York City: Oxford University Press, 2006.**
- **Cost-Outcome Analysis in Injury Prevention and Control: 84 Estimates for the United States, T Miller, D Levy, *Medical Care*, 38:6, 562-582, 2000.**

## SUMMARY

- **Injury is the leading child health risk**
- **Prevention yields large savings for taxpayers**
- **Unrealistic to expect State gov't savings**
- **Targeting to Medicaid population can help**
- **Laws & enforcement often save the State \$**
- **People do not understand big numbers**
- **Select costs to suit the audience**
- **You cannot spend some savings**
- **Put a face with the \$**