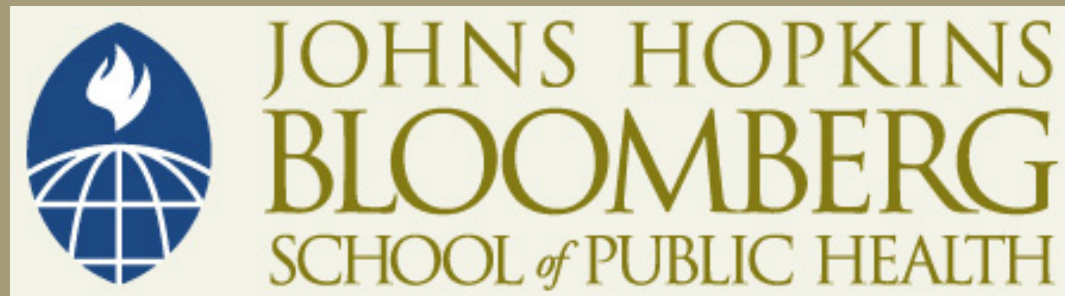


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JOHNS HOPKINS  
BLOOMBERG  
SCHOOL *of* PUBLIC HEALTH

## *Section C*

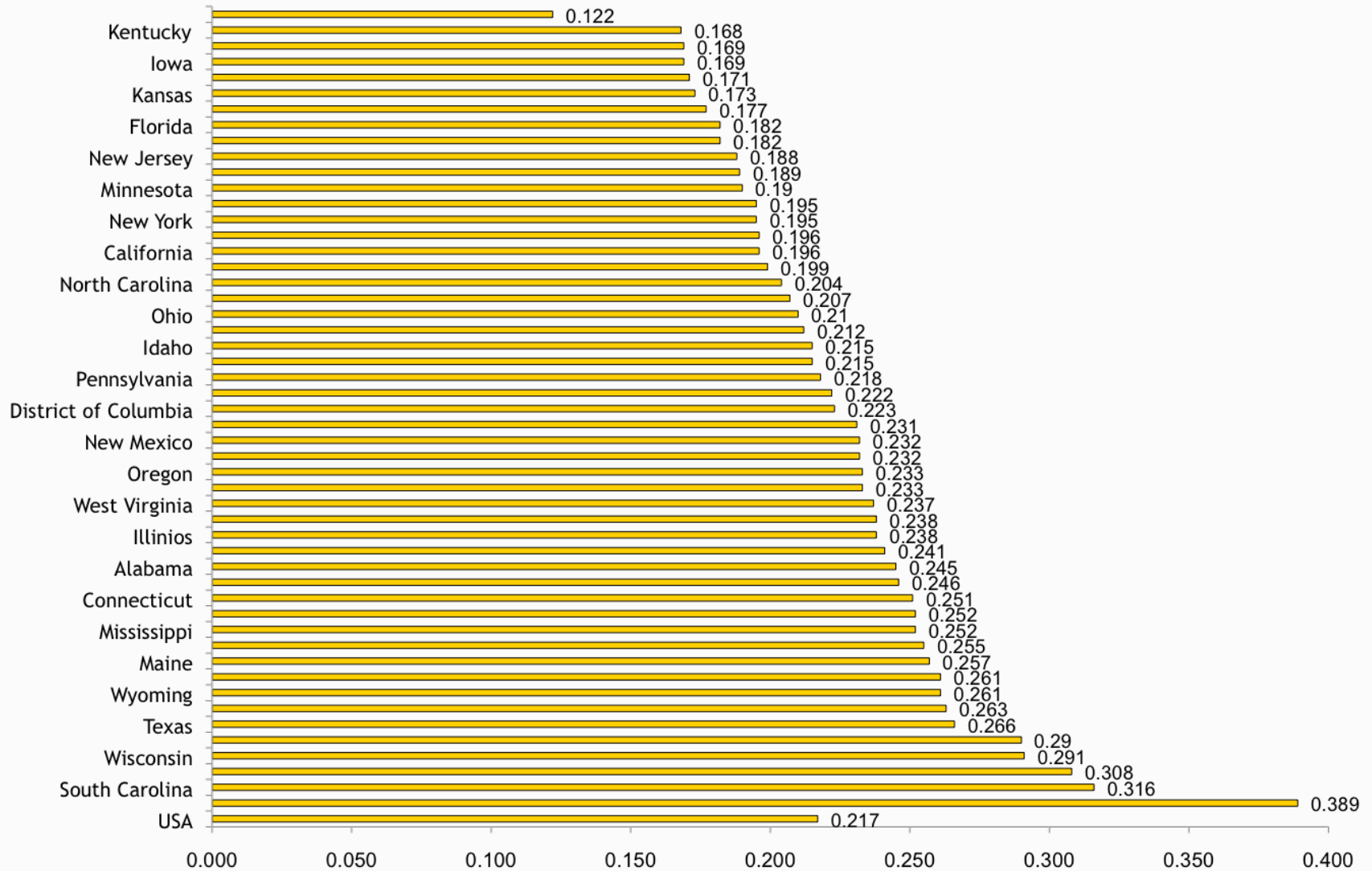
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Case Studies and the Need for Local Data

## *Alcohol and Injuries*

- Is it a problem in my country or area?
- Application of alcohol studies
  - Document the problem
  - Demonstrate importance to policy makers

# Proportion of Drivers in Fatal Crashes by State in 2007 with BACs .08+

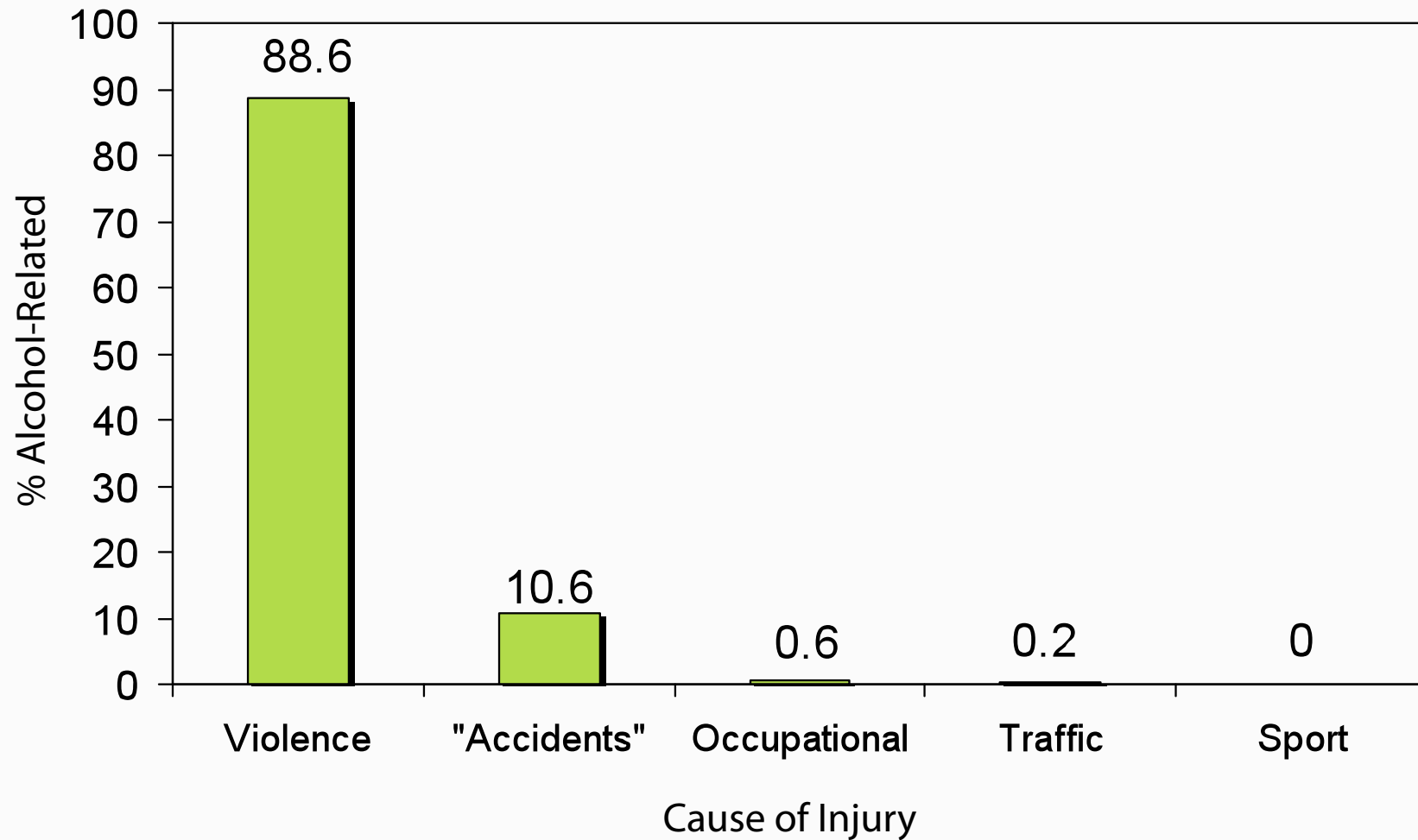


## Maryland Trauma Registry Data FY 1995-2001

<b>Cause of Injury</b>	<b>n</b>	<b>%</b>	<b>Mean BAC (mg/dl)</b>	<b>BAC Range (mg/dl)</b>
Fall	160	46	217	23-439
Pedestrian	25	7	208	22-365
MVC	107	31	167	20-379
All other	55	16	166	21-348

## Alcohol-Relatedness per Cause Category Injuries

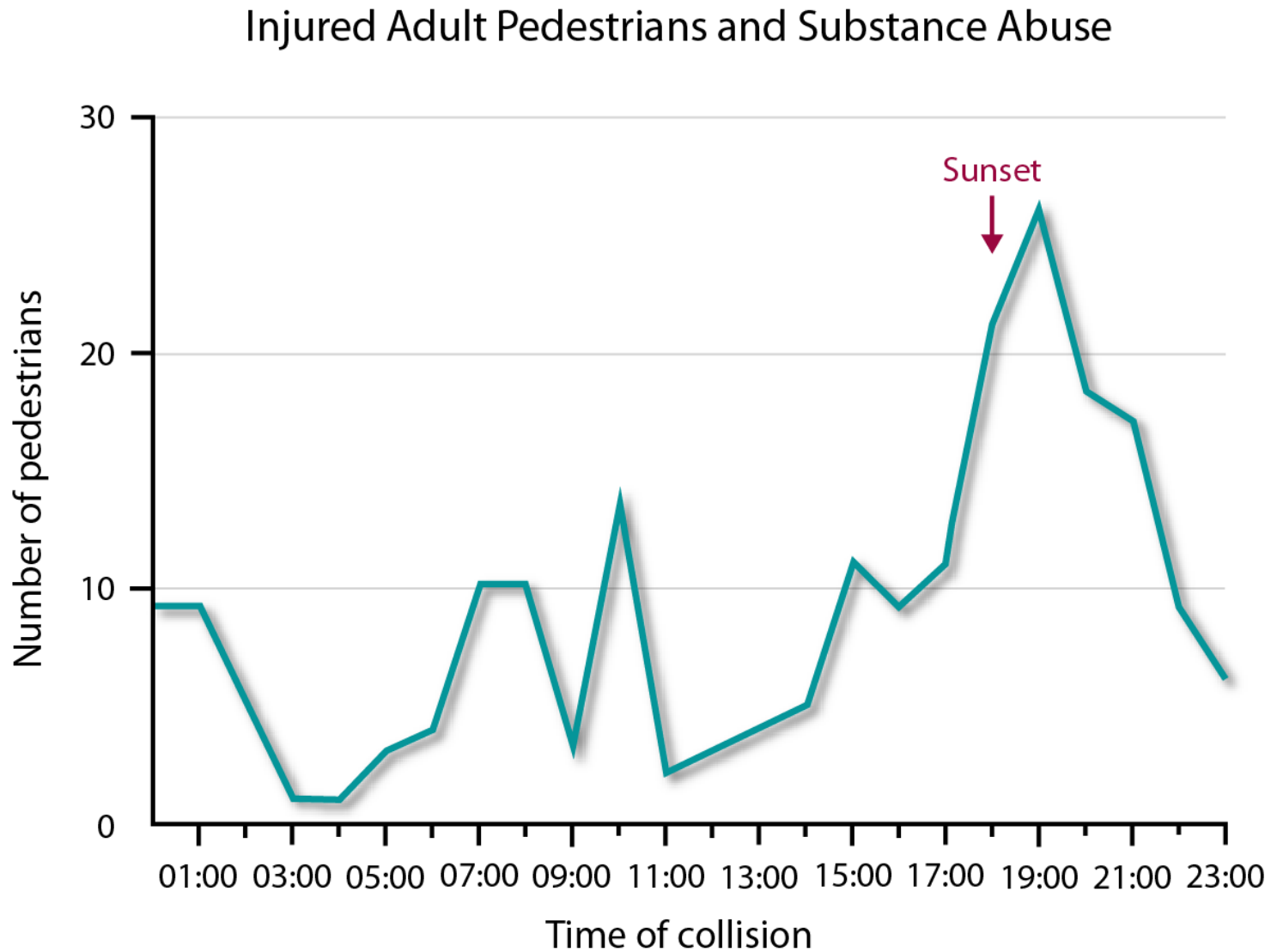
- Data from farms in the Western Cape



## *Injured Adult Pedestrians and Substance Abuse*

- The MVAPed study documented the transient increase in pedestrian collisions one hour after sunset

# Injured Adult Pedestrians and Substance Abuse



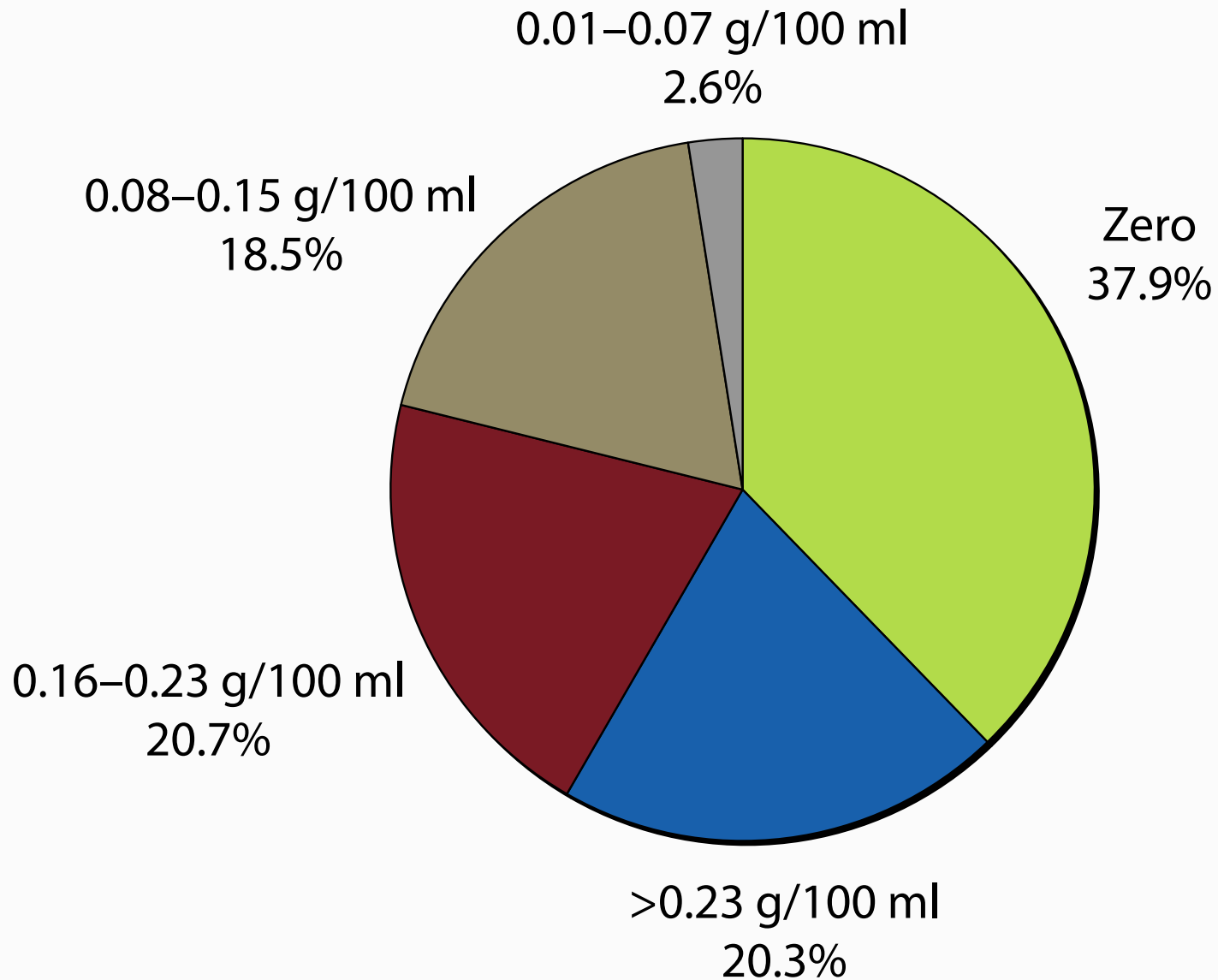
Adapted by CTLT from Peden, M. (December 1999). Injured adult pedestrians and the substances they abuse. *Trauma Review*, 6, 3.



## *Saturday Injuries and BAC*

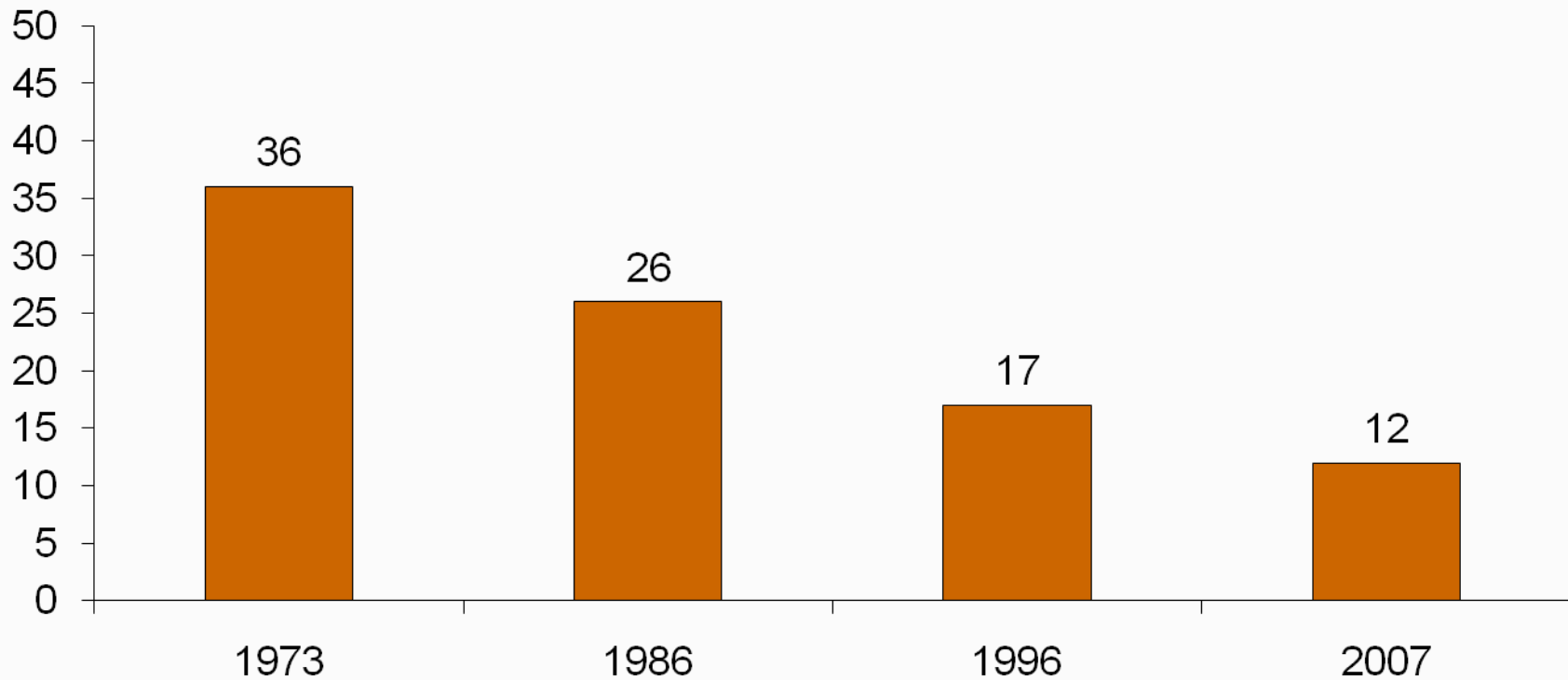
- Virtually all pedestrians injured on Saturdays were drunk at the time and had extremely high BACs

## Saturday Injuries and BAC



## Percent of US Drivers on the Road with Positive BAC Levels

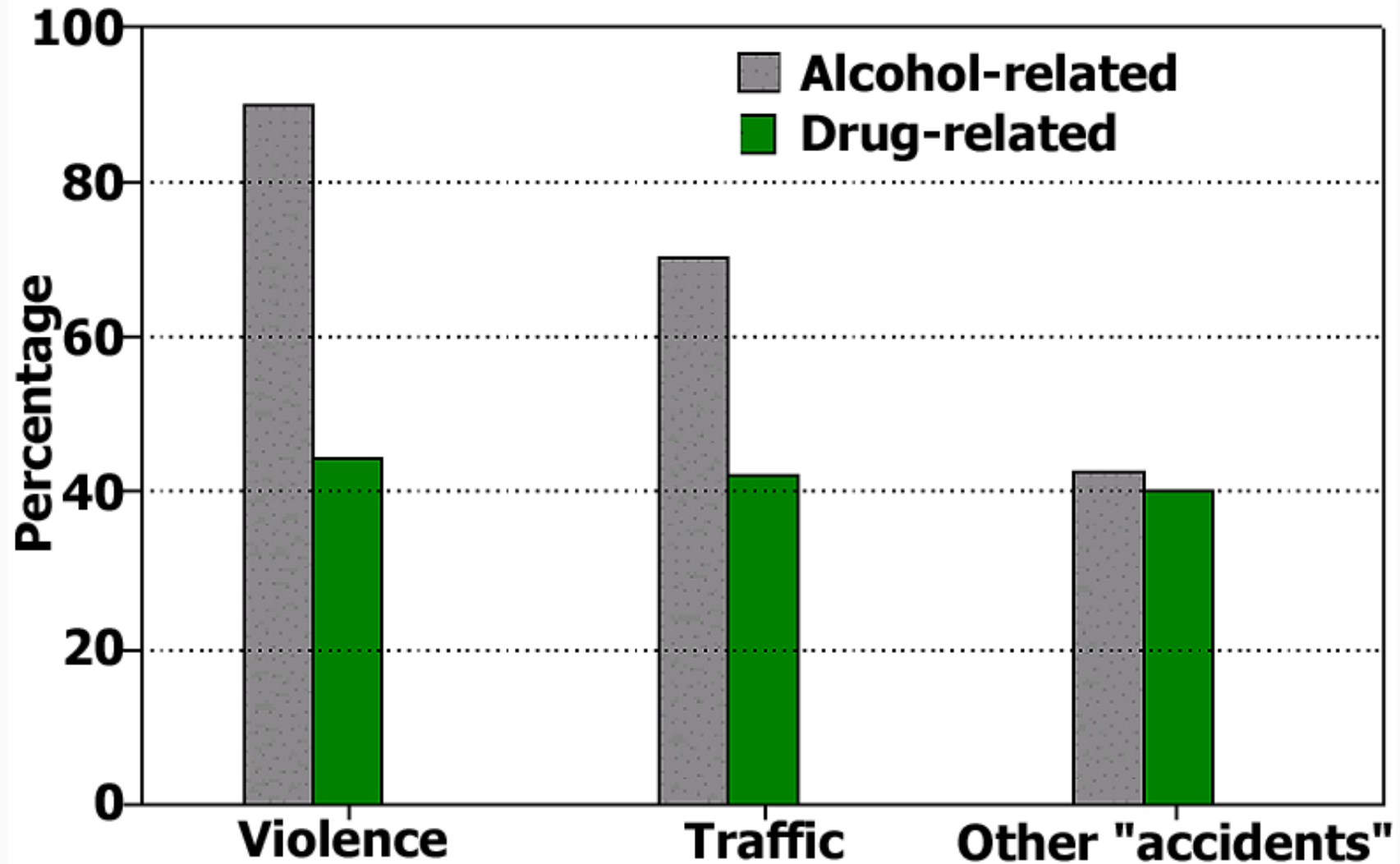
(BAC  $\geq$  .01) (Weekend Evenings)



Source: National Roadside Surveys.

## Substance Abuse Among Trauma Patients

- Data from Port Elizabeth, South Africa (n = 273)



## *Improving Data on Alcohol*

- Coronial or medical examiner data
  - Important source injury data
  - Useful for:
    - ▶ Prevention
    - ▶ Research

## *Coronial Data*

- Coronial or medical examiner data largely ignored by:
  - Injury professionals
  - Researchers
  - Policy makers

## *Coronial Investigation Files*

- Extensive information available on:
  - Circumstances
  - Potential risk factors
  - Potential causes
  - Preventive actions
  - AND ALCOHOL

## *Alcohol and Fatal Injuries in New Zealand*

- Good data available only for motor vehicle fatalities
  - Data used to develop effective prevention efforts
  - Evaluate trends over time



## *Alcohol and Fatal Injuries in New Zealand*

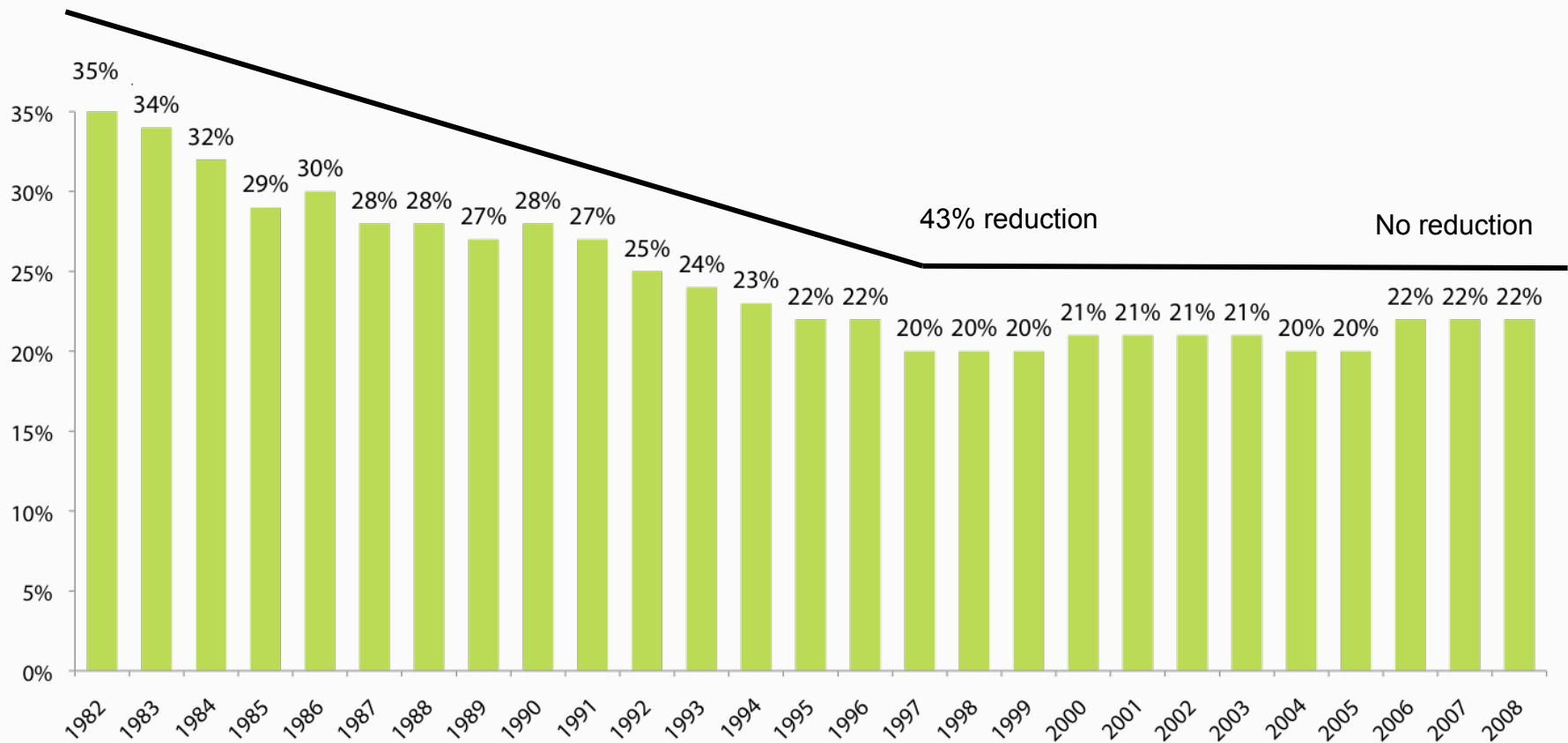
- Limited data available to even identify other problem areas
  - Gwyn (1980): Alcohol a factor in 29% of non-vehicular injury deaths

## *Need to Test BAC for All Cases*

- Even for US vehicle fatalities only 75% tested nationally
  - Imputation used to create national estimates
- Need to test all cases, not just those you suspect
  - Additional funds needed
- Can provide valuable data for targeting local programs

# Legally Intoxicated US Drivers Involved in Fatal Crashes

Proportion of all US drivers involved in fatal crashes estimated to have been legally intoxicated (BAC => .08), 1982-2008



## *Drownings*

- Drowning rates in New Zealand are among the highest
- Alcohol an important factor overseas but some doubt the importance
- Official estimates 12% alcohol-involvement
- National testing rates low (about 36%)

## *Drownings*

- 50% of those tested BAC positive
- Assumed those not tested were negative
- We estimated between 10% and 50% alcohol involvement

## *Drownings*

- Local data available from one coroner's office
- Policy of testing drowning victims in Auckland
- In ages 15–64, testing rates were over 80%
- 40.5% positive BAC, 30% > 100 mg/dl
- Now alcohol recognized as an important issue

## *Boating and Alcohol*

- Review of boating deaths in Auckland
- For those with reliable BAC data, 15–64 years
  - 40% BAC positive, 24% > 100 mg/dl
  - Similar to the proportion of car drivers killed

## *Boating and Alcohol*

- For those falling from boats almost 70% were intoxicated
- Identification of the problem led to an effort to reduce drinking among spectators at the America's Cup



## *Conclusion*

- Coronial data are an important tool for injury prevention
- Auckland is an ideal site to pilot development of coroner data

## *Conclusion*

- Need to test all cases for alcohol in order to target specific problems
- Coroners are an important part of local injury prevention programs
- Example of the value of collecting local data on alcohol injuries

## *WHO Collaborative Study on Alcohol and Injuries*

- The WHO Department of Mental Health and Substance Abuse in collaboration with the WHO Department of Injuries and Violence Prevention initiated the WHO Collaborative Study on Alcohol and Injuries that has been implemented in the following 12 countries:
  - Argentina
  - Belarus
  - Brazil
  - Canada
  - China
  - Czech Republic
  - India
  - Mexico
  - Mozambique
  - New Zealand
  - South Africa
  - Sweden

# WHO Collaborative Study on Alcohol and Injuries

- Standard questionnaire used in all countries with slight modification
- Objectives of the study
  - To test in different societies the ability of emergency room staff to assess and record the degree of alcohol intoxication in injured patients using ICD-10 Y91 coding
  - To develop and pilot the materials to assist emergency room staff in assessing and coding the degree of alcohol intoxication
  - To document the proportion of victims of non-fatal injuries with alcohol intoxication in a probability sample of emergency room patients at each site
  - To explore the ways in which alcohol assessments/measurements could be worked into routine emergency room practice
  - To examine the context in which drinking had occurred prior to the injury and other drinking variables (amount, type of beverage, etc.) in different cultural settings
  - To collect information on the association of patterns of drinking with injuries
  - To identify prerequisites for establishing surveillance systems for alcohol involvement in non-fatal injuries in each site

## *WHO Collaborative Study on Alcohol and Injuries*

- Components of the study
  - Feasibility study of Y91 coding for assessment and recording of alcohol intoxication in emergency rooms
  - Documentation of alcohol involvement in non-fatal injuries among emergency room attendees
  - Quantitative survey among emergency room attendees using a specifically designed questionnaire
  - Qualitative study of current local system of assessment and recording alcohol involvement in injuries