

Legal consequences for alcohol-impaired drivers injured in motor vehicle collisions: a systematic review

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Background



- Alcohol-related motor vehicle collisions (MVCs) are a leading cause of preventable trauma and mortality.
- Approximately 30-40% of fatal MVCs in North America involve alcohol, the victims are disproportionately younger and middle-aged men.
- Intoxicated drivers not only place themselves at risk, but also directly cause substantial death, disability and suffering of innocent citizens.



Background



- Intoxicated drivers seen in the emergency department (ED) following a MVC may evade legal consequences.
- Possible explanations include difficulty identifying intoxication, unavailability of a legally usable blood alcohol concentration (BAC) measurement, and poor logistical coordination between police and the ED.
- The scale of this issue in different legal jurisdictions nationally and internationally is not well described.



Objective



To synthesize evidence from peer-reviewed primary studies that examined legal consequences for alcohol-impaired drivers who were injured in a MVC and required assessment in the ED of a hospital or trauma center.



Methodology

Search Strategy



- Systematic search of Medline, EMBASE, and CINAHL databases from inception to Aug 1, 2014.
- Used a combination of Medical Subject Headings, Emtree headings, and variations of key words including “trauma”, “injured”, “motor vehicle”, “automobile”, “car”, “alcohol”, “intoxicated”, “impaired”, “hospital”, “emergency”, “police”, “legal”, “prosecution”, “charge”, “conviction”, etc.



Methodology

Search Strategy



- Search restricted to full-text articles in English.
- 1307 potentially relevant articles independently screened (title/abstract) by 2 reviewers.
- 66 studies (full-text) were evaluated by 2 reviewers for eligibility.



Methodology

Inclusion Criteria



- a) *design*** – any primary peer-reviewed study involving humans (randomized controlled trials, cohort studies, case control studies, case series, case reports);
- b) *population*** – drivers above the legal BAC limit (in the location and at the time of the study) injured in a MVC;
- c) *exposure*** – being seen for treatment in a hospital or trauma center; and
- d) *outcome*** – any legal consequences (e.g., charges, convictions) that resulted from the case.



Methodology

Exclusion Criteria



- any study not reporting legal consequences for drivers with a BAC above legal limit.
- studies based on self-reporting (e.g., surveys).
- comment, review, or policy statement.
- studies not specific to MVCs or to the ED of a hospital or trauma center.



Methodology

Definitions



Legal BAC limit: The legal BAC cutoff in the jurisdiction at the time the study was performed.

Motor vehicle: Automobiles, trucks, and motorcycles.

Impaired/Intoxicated: Drivers over legal BAC limit, only referring to alcohol use.

No restrictions on type/severity of injury, or whether driver was admitted to hospital or discharged from ED.



Methodology

Data Analysis



- We calculated descriptive statistics for each study.
- We defined overall DUI/DWI conviction rate as:

of drivers above legal BAC limit and
convicted of DUI and/or DWI

total # of drivers above the legal BAC limit
with police records available

DUI = Driving under the influence

DWI = Driving while impaired



Results



Study Characteristics

- 26 studies met all inclusion criteria.
 - 23 retrospective cohort, 3 prospective cohort
- Studies were published between 1984 and 2014.
 - United States (20), Canada (5), Sweden (1)
- All studies performed using data from hospitals or trauma centers:
 - 17 at Level 1 Trauma Centers
 - 3 at Level 2 Trauma Centers
 - 4 at multiple Trauma Centers (Level 1 & 2)
 - 2 used data from hospital records



Results

Study Characteristics

- Overall, there were 11409 patients included.
 - Sample size range 56 – 2410 (median 175)
- 5127 drivers with BAC exceeding legal limit.
- Legal BAC limit (mg/dL):
 - 100 (14), 80 (9), 70 (1), 50 (1), 20 (1)



Results



Demographics & Injury Severity

Characteristic	# Studies	Mean reported	
		Median	Range
Age (years)	16	32	30 – 34.2
Gender (% male)	17	82.6	73 – 86.1
ISS	14	13.4	9 – 19
In-hospital LOS (days)	9	7.2	1.5 – 15.2
Mortality (%)	9	6.1	1.2 – 12.2

Characteristics of drivers above legal BAC limit



Results

BAC Measurements



- BAC level of intoxicated drivers (19 studies).
 - median of mean BAC values: 213mg/dL (IQR 190 – 217mg/dL)
- In 13 of these studies the mean or median BAC of intoxicated drivers was greater than 200mg/dL.



Results

Other Drugs

- 2 studies reported drug screening identified additional substances in patients including:
 - cocaine
 - heroine
 - tetrahydrocannabinol
 - amphetamine



Results



Legal Consequences

- Of 5127 drivers with BAC above legal limit, linkage to police records was possible in 4937 cases.
- Charges or administrative sanctions included:
 - DUI / DWI
 - driving with a suspended license
 - intoxicated manslaughter
 - reckless driving
 - 24h or 90 day license suspensions



Results

Legal Consequences

Consequence	# Studies	Mean reported	
		Median	Range
Charged DUI/DWI (%)	19	21	5 – 73
Convicted of DUI/DWI (% charged)	19	61.5	0 – 100
Convicted any offense (%)	23	65	0 – 100
Overall DUI/DWI conviction rate (%)	23	13	0 – 85
Previous DUI/DWI (%)	10	15.5	6 – 40
Subsequent DUI/DWI (%)	7	3.5	2 – 10

Legal consequences for drivers above legal BAC limit



Results



Injury Severity & Legal Consequences

- 8 studies examined relationship between ISS and legal consequences for intoxicated drivers.
 - 5 studies found no significant difference in ISS between patients charged or convicted of DUI and those not prosecuted.
 - Using multivariate logistic regression, 2 studies found ISS was significantly associated with DUI conviction, while the 3rd study found no significant difference.



Results



Injury Severity & Legal Consequences

- 1 study used Trauma Score (TS) to evaluate injury.
 - severely injured patients ($TS \leq 12$) were significantly less likely to be charged with DWI than less severely injured patients.
- 1 study compared 3 cohorts of drivers:
 - intoxicated/injured
 - intoxicated/non-injured
 - sober/injured

Found a significant difference in conviction rate of injured intoxicated drivers (59%) compared with uninjured intoxicated drivers (100%).



Discussion



- Mean BAC of patients exceeded 200mg/dL in most studies.
- Study with highest DUI/DWI conviction rate (85%) was from Sweden where BAC cutoff was 20mg/dL.
- Studies from North America observed lower rates of DUI/DWI conviction, ranging between 0 – 63% in the US (median 13.5%) and between 7 – 16% in Canada (median 10.5%).



Discussion



- Sweden currently has among the toughest impaired driving regulations worldwide.
- Drivers with BAC levels 20 – 100mg/dL may face:
 - imprisonment for up to 6 months
 - license suspension for 1-12 months
 - fines based on incident, BAC level, and income level
- Differences between Sweden, Canada, and USA:
 - legal drinking age (18-19yr Canada/Sweden; 21 USA)
 - graduated licensing systems (learner's permit 14-16yr in Canada/USA; 16yr in Sweden)



Discussion



How to Reduce Personal/Public Harm?

- Brief interventions for alcohol use
- Advances in technology
- Mandatory reporting of intoxicated drivers by ED physicians



Conclusions



- The majority of intoxicated drivers who are injured in MVCs and require assessment in the ED of a hospital or trauma center are never legally charged or convicted.
- A substantial proportion of injured drivers had at least one other alcohol-related driving conviction on their police record.

Thank You



Patient's privacy rights shouldn't trump public safety 240

DR. BRETT BELCHETZ

FIRST POSTED: SATURDAY, AUGUST 23, 2014 09:00 PM EDT | UPDATED: SUNDAY, AUGUST 24, 2014 09:32 AM EDT



Dr. Brett Belchetz on Aug. 20, 2014. (Veronica Henri/Toronto Sun)

TORONTO - Several weeks ago, during an evening shift in my emergency room, a motor vehicle accident victim was brought into my department by ambulance, having suffered minor injuries as a result of her crash.

The patient, a woman in her 40s, had driven her car into the back of another automobile, causing significant damage to her vehicle and injuring the two occupants of the car she struck.

As I examined this woman, it became apparent to me she was likely under the influence of alcohol at the time of the accident. Her breath smelled strongly of liquor, her words were slurred, and her balance was unsteady.



Article



Recommend

1.7k



Speaking to the attending paramedics, I was informed police had not interviewed the woman at the scene and she had not yet been subjected to an alcohol breath test. Assessing the patient for injuries, I proceeded to order x-rays and CT scans, as well as lab tests to screen for alcohol and drugs of abuse.

Two hours later, having ruled out any major injuries to my patient as a result of her accident, I was informed she had refused all laboratory investigations I had ordered, as is her right under our laws. Further, inexplicably, police had still not shown up to interview her and she was now stating her desire to go home.

Faced with no reasonable justification to keep her in hospital, I was forced to watch as she got up from her stretcher and walked out of my ER, patient confidentiality legislation preventing me from taking any action to inform police of my suspicions.

As she strolled through the hospital's exit, she looked back at me and gave me a smirk -- a knowing glance that communicated what we both knew: she had committed a crime that had injured others and gotten away with it.

I have never in my career as a physician felt so powerless to carry out my obligation to protect the public as I did at that moment.

In the article I wrote in August, I pleaded with medical authorities and the government to change current legislation to allow physicians to report suspected drunk drivers, just as we currently report cases of gunshot injuries. The response from the authorities here in Ontario was a blunt refusal to make any changes. A spokesman for Ontario's Minister of Health, Dr. Eric Hoskins, stated that the current reporting guidelines of the College of Physicians and Surgeons already allow physicians to report drivers to the ministry of transportation in such a situation as I experienced. This is factually incorrect. The current guidelines read as follows:

The Highway Traffic Act requires that physicians report every individual 16 years of age or over attending upon the physician for medical services, who, in the opinion of the physician is suffering from a condition that may make it dangerous to operate a motor vehicle.

One episode of apparent intoxication has never been defined as adequate for diagnosis of a "condition" that makes it dangerous to operate a motor vehicle. A "condition" involving alcohol requires repeated abuses, with demonstrated addiction - almost impossible to substantiate in an ER setting. Any physician reporting a patient as unfit to drive based on only one observed event (unless they were leaving medical care to get immediately back behind the wheel), such as I witnessed, would find themselves vulnerable to patient complaints and litigation, and rightfully so.

In the meantime, experiences like mine are not a rare occurrence in our hospitals. Impaired drivers continue to routinely use the ER as a "get out of jail free card," escaping police assessment at accident scenes by claiming injury, and denying injury once they arrive at hospital. Being uninjured, they can then leave the Emergency Room quickly, often before police arrive. When they are finally interviewed by police, sometimes hours later, breath testing is no longer legally admissible, due to the impossibility of determining when any alcohol intake occurred.

Due to the lack of action on the part of the College of Physicians and Surgeons of Ontario and of the Ontario Ministry of Health to address this issue, I have partnered with MADD Canada in writing the following open letter to the Premier of Ontario and to the Attorney General of Ontario to help close the hospital "drunk driving loophole" in a manner that does not require any violation of patient confidentiality by physicians or hospitals, by making use of current "leaving the scene of the accident" legislation:

The Honourable Kathleen Wynne, MPP (Don Valley West), Premier of Ontario

The Honourable Madeleine Meilleur, MPP (Ottawa-Vanier), Attorney General of Ontario

Dear Premier, Minister,

Every year collisions involving impaired drivers take the lives of over 1,000 Canadians. In Ontario alone, it is estimated that in 2010, 285 traffic fatalities were related to alcohol consumption. (Source: Estimating the Number and Cost of Impairment-Related Traffic Crashes in Canada: 1999 - 2010, MADD Canada, 2013.) Despite aggressive policing, including sobriety checkpoints and increasing criminal penalties, the rate of impaired driving charges has remained fairly steady over the past decade, with the 2011 rate only 3% lower than the rate in 2001. (Source: Alcohol and Drug-Impaired Driving Charges and Convictions: Canada, 1977 - 2012.)

Source: Huffington Post. April 4, 2015. Available at: http://www.huffingtonpost.ca/dr-brett-belchetz/drunken-driving-ontario_b_6594646.html

Against this backdrop, there exists in the province of Ontario a loophole in current impaired driving legislation that allows the worst offenders, those involved in a crash involving injury, to often escape police investigation and prosecution. By stating personal injury to first responders after a vehicle collision, impaired drivers are evacuated from the scene of a crash for medical assessment prior to any police interviews or breath testing, as medical assessment needs appropriately trump the need for criminal investigation. Once at a hospital setting however, impaired drivers often leave the Emergency Room prior to the arrival of police, thereby rendering any subsequent alcohol testing to be inadmissible due to a break in the chain of custody.

"Failure to remain or return to the scene of an accident" is an extremely serious offence under Ontario's laws, with punishments as severe as 5 years imprisonment, depending on circumstances. It is disconcerting that impaired drivers in this province have managed to find a way around this law, essentially "leaving the scene" by way of hospital visits. As such, we would request that current leaving the scene legislation be amended, so that when a driver is evacuated from a crash site by medical personnel, avoiding police investigation at the scene, the hospital be treated as part of the crash scene. Consequently, any driver leaving the hospital without a police interview would be subject to the full legal consequences they would have incurred had they left the scene of the crash directly. By making this change, our hospitals will no longer be used as a "get out of jail free" card by impaired drivers in this province. We believe this to be a simple legislative change that will take impaired drivers off the roads, while preserving the confidentiality of medical care.

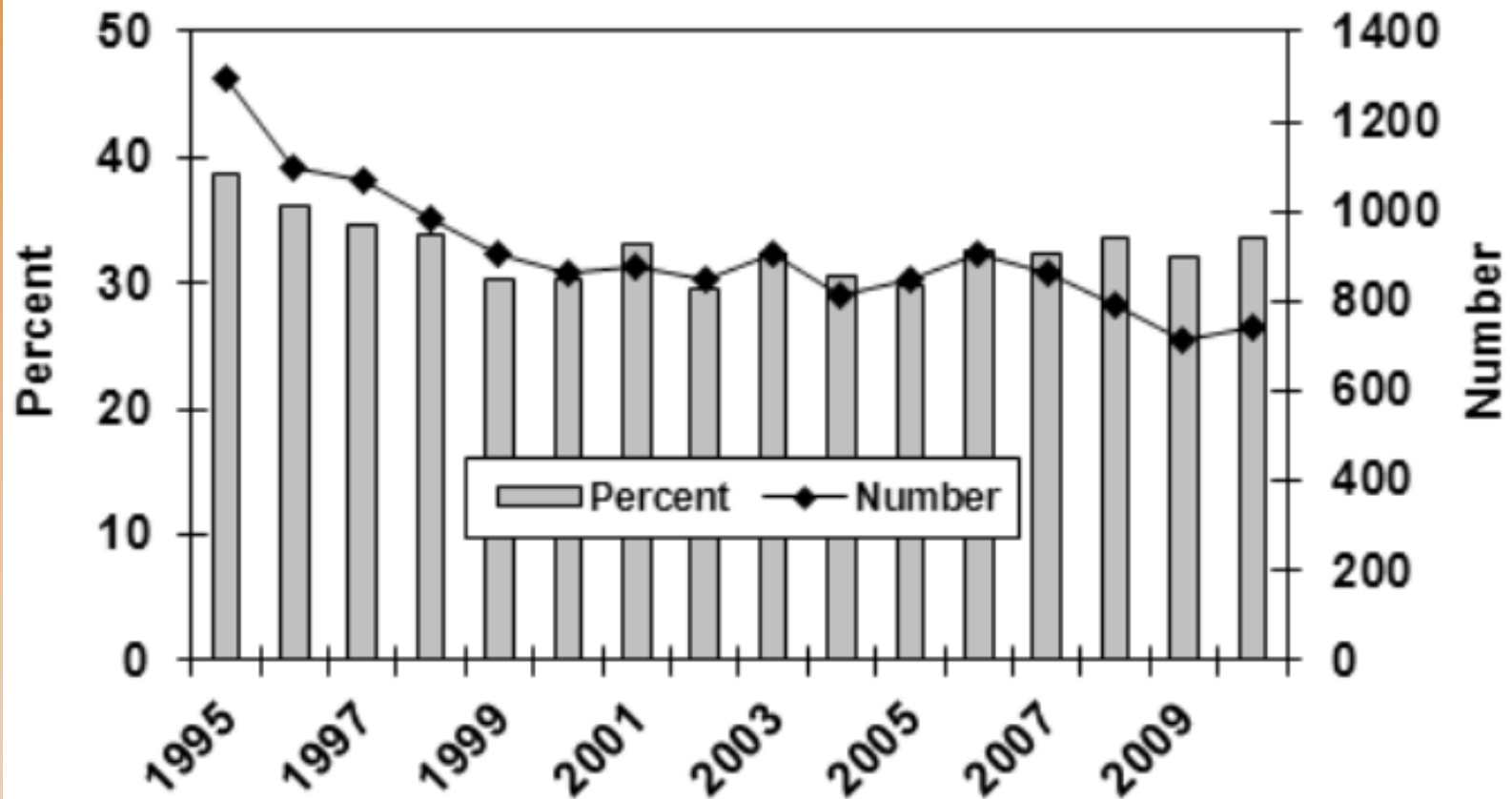
Thank you for your attention and we look forward to your response.

Sincerely,

Dr. Brett Belchetz
ER Physician, Toronto

Andrew Murie
CEO, MADD Canada

Number and Percent of Deaths Involving a Drinking Driver: Canada, 1995-2010



Source: The alcohol-crash problem in Canada: 2010. Ottawa (ON): Canadian Council of Motor Transport Administrators Standing Committee on Road Safety Research and Policies and Transport; 2013. Available: http://www.tirf.ca/publications/PDF_publications/2010_Alcohol_Crash_Problem_Report_4_FINAL.pdf



RCMP say impaired driving still an issue on Maritime roads

Police in Halifax have already charged 12 drivers this weekend for impaired driving

CBC News Posted: May 17, 2015 10:17 AMAT | Last Updated: May 17, 2015 10:17 AMAT



Cst. Halson Foster with Nova Scotia's Cole Harbour RCMP says officers are conducting checkpoints all over this weekend. (Shutterstock)

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RCMP across the Maritimes are out in full force for the long weekend.

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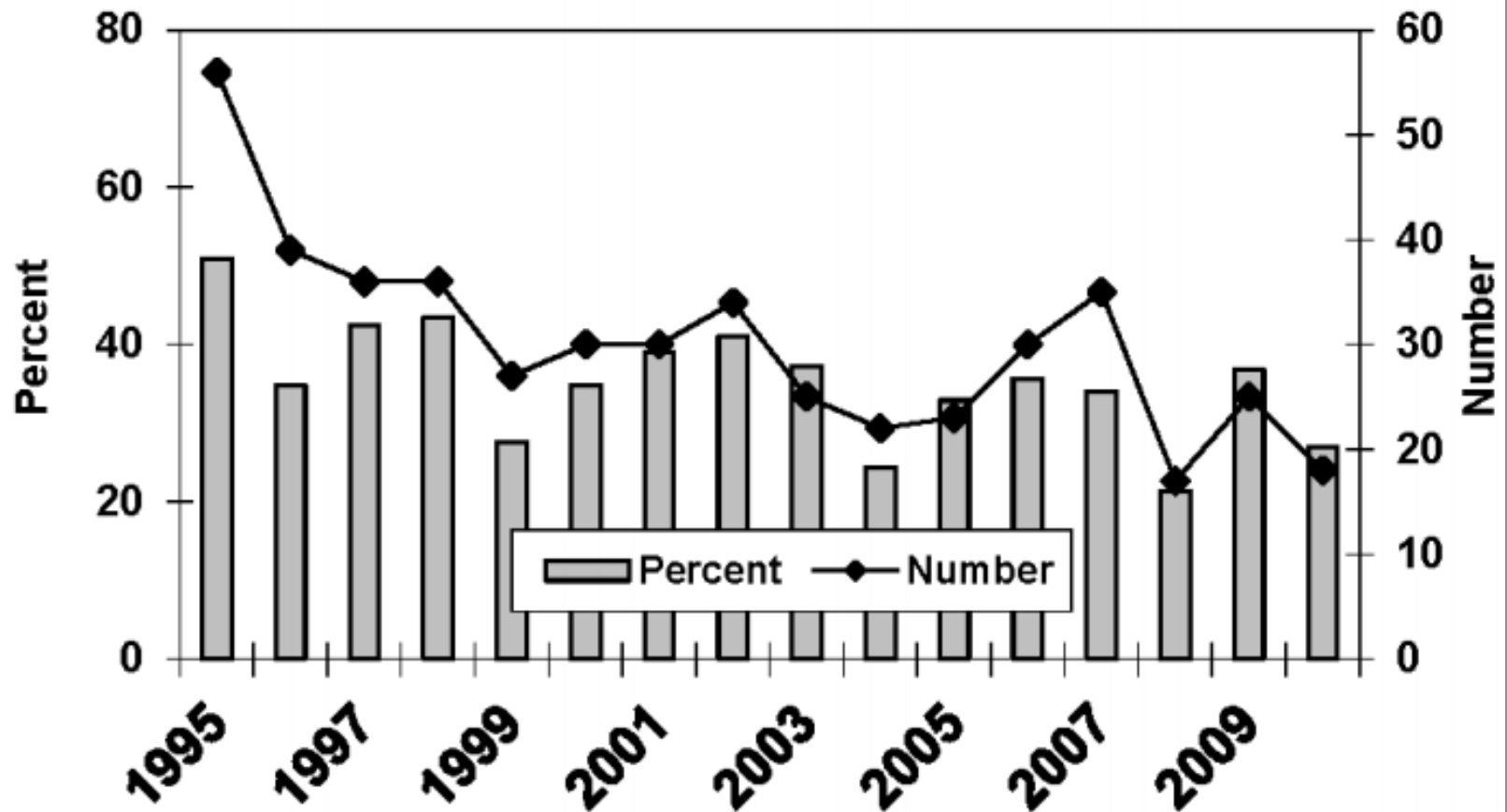
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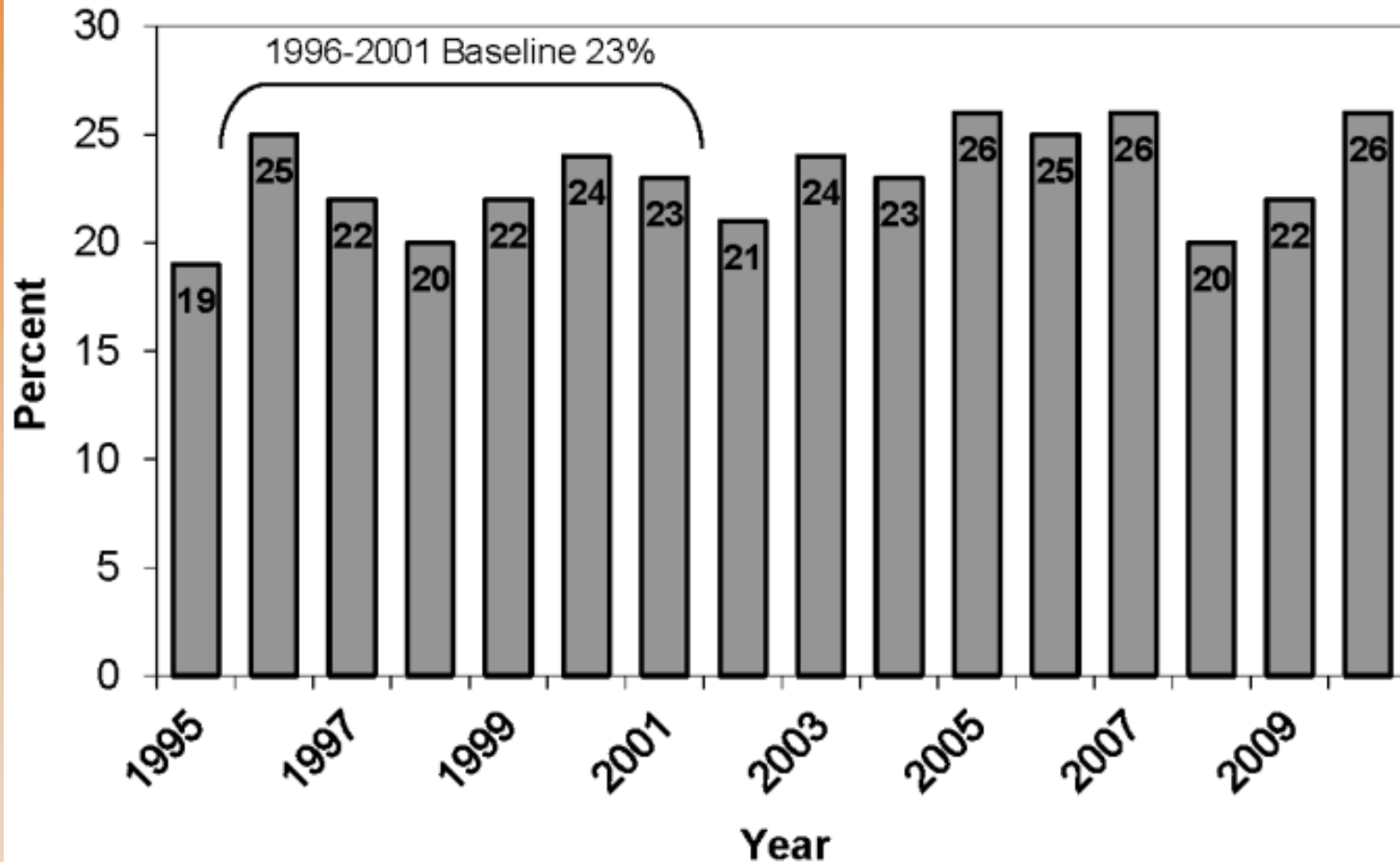
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Number and Percent of Deaths Involving a Drinking Driver: Nova Scotia, 1995-2010



Source: The alcohol-crash problem in Canada: 2010. Ottawa (ON): Canadian Council of Motor Transport Administrators Standing Committee on Road Safety Research and Policies and Transport; 2013. Available: http://www.tirf.ca/publications/PDF_publications/2010_Alcohol_Crash_Problem_Report_4_FINAL.pdf

Percent of All Drivers in Serious Injury Crashes that Involved Alcohol: Nova Scotia, 1995-2010



Source: The alcohol-crash problem in Canada: 2010. Ottawa (ON): Canadian Council of Motor Transport Administrators Standing Committee on Road Safety Research and Policies and Transport; 2013. Available: http://www.tirf.ca/publications/PDF_publications/2010_Alcohol_Crash_Problem_Report_4_FINAL.pdf



Methodology

Study Quality



- Included studies were independently evaluated by 2 reviewers using the Risk of Bias Assessment Tool for Nonrandomized Studies (RoBANS).
 - a) Selection of participants
 - b) Confounding variables
 - c) Measurement of exposure
 - d) Binding of outcomes
 - e) Incomplete outcome data
 - f) Selective outcome reporting
- Studies were included regardless of their risk of bias.

*6 domains
of RoBANS*



Results

Quality of Included Studies

Domain	Low	Unclear	High	Weighted kappa
Selection of participants	23	3	0	0.103
Confounding variables	7	7	12	0.017
Measurement of exposure	25	1	0	0.00
Blinding of outcome assessments	23	3	0	0.120
Incomplete outcome data	8	8	10	0.310
Selective outcome reporting	13	8	5	-0.083



Methodology

Data Collection



- For patients above legal BAC limit, we extracted:
 - age
 - gender
 - Injury Severity Score (ISS)
 - length of stay (LOS)
 - mortality
 - administrative sanctions
 - legal charges
 - legal convictions
 - previous/subsequent convictions