1- http://www2.potsdam.edu/hansondj/DrivingIssues/1061319886.html

Alcohol as a Cause of Traffic Crashes

by David J. Hanson, Ph.D.

Alcohol-related traffic crashes are *not necessarily* caused by alcohol. Many are, but no one knows the exact proportion.

There is overwhelming evidence that

1. alcohol adversely affects driving-related skills such as vision, reaction time, judgment, and the ability to divide attention, and
2. intoxication decreases driving performance.

It is also clear that drinking drivers who crash are similar in many ways to sober drivers who crash. Both groups are disproportionately young, male, single, suffer from alcohol or drug problems, and are characterized by aggression, hostility or other "undesirable" attitudes and personality traits.

Drunk drivers don't become model drivers when sober. Even when completely sober, those who sometimes drive drunk are at high risk of being involved in traffic accidents. But there's every reason to believe that alcohol frequently contributes to crashes.

One technique that demonstrates this is called responsibility analysis. By examining multiple-vehicle crash reports without knowledge of drivers' blood alcohol concentrations (BACs), researchers estimate the degree to which each driver was responsible for his or her crash. In a sample of injured drivers in Monroe County, NY, it was estimated that 34-43% of sober drivers were responsible compared to 74-90% of intoxicated drivers (BAC of 0.10 or higher).[1]

A large study of 1,882 fatally injured drivers in several states concluded that 68% of sober drivers and 94% of intoxicated drivers (0.10 BAC or higher) were responsible for their crashes. The responsibility rates were higher in this study, which included single vehicle crashes, largely because drivers in single vehicle crashes are almost always deemed

responsible. Nevertheless, the pattern is the same: responsibility for accidents increases with intoxication. [2]

How many drunk drivers would have had accidents if they were sober? Again, no one knows. But one expert, James Hedlund, has identified three broad types of drinking drivers, for whom the answer probably differs:

1. "normal" drivers who are social drinkers. Such drivers may miscalculate the effects of alcohol on their performance. Dr. Hedlund asserts that alcohol increases their crash risk and their crash rates would decrease substantially if they did not drive after drinking,
2. "high-risk" drivers. These are frequent drinkers, for whom alcohol abuse "may be just another manifestation of risk-taking behavior or may enable this behavior by removing what inhibitions they have." Abstaining may not reduce their crash rates much, and
3. alcoholics, for whom alcohol abuse is an integral part of life Abstaining would require a complete lifestyle change. If they abstained, their crash rates should drop significantly. [3]

Dr. Hedlund observes that

The three groups are affected differently by measures to limit drinking and driving. "Normal" drivers can be deterred by the legal consequences of arrest and sanction for impaired driving and also can be affected by education and prevention methods. Arguably, much of the reduction in alcohol-involved crashes may have come from changes in the behavior of this group. In contrast, alcoholics are unlikely to be affected by anything that does not deal directly with their alcoholism. Traffic safety can play an important role by screening DWI offenders for alcohol problems and assuring that they are referred to treatment as appropriate, but other traffic safety measures are unlikely to have much effect. "High-risk" drivers are perhaps the hardest group to affect. Deterrence, even arrest and punishment, may have little influence on their behavior. Some high-risk behavior is outgrown as drivers mature. However, since high-risk behavior is rooted so deeply in some drivers' personalities, any change requires measures for broader than those available to traffic safety. [4]

Although it appears to be significant, the proportion of alcohol-involved traffic accidents that would have occurred even if the drivers had been sober remains unknown.

2- http://www.drinkaware.co.uk/check-the-facts/effects-on-your-safety/alcohol-related-accidents/

Alcohol related accidents

Spilling red wine over your friend's pristine white sofa. Breaking another wine glass all over the floor. Tripping up your front steps.

Drinking can make us prone to minor accidents that almost seem part of your average night. But alcohol can be the cause of more serious accidents too.

There are two main things which make this likely. Because it's a depressant, alcohol slows down the brain and affects the body's responses. At the same time, if you've been drinking, you're more likely to take risks. Combined, these reactions increase the chance of accidents happening.

1. The more you drink, the more likely you are to have an accident

"That table looks perfectly safe to dance on."

"Forgot my keys. I'll just hop over this fence!"

These are just two examples of the more light hearted side effects of drinking alcohol once euphoria sets in. But the feeling you get when the amount of alcohol in your blood increases can have disastrous consequences too. It can make you underestimate your own abilities and behave recklessly. That road doesn't look as busy, that gap isn't so big and besides, you are an expert long jumper…

As blood alcohol concentration (BAC) rises, so does the risk of accidents. BAC, the amount of alcohol in your breath or blood, is measured in mg of alcohol per 100ml of blood, or mg%. It's affected by all sorts of factors, including how much alcohol you drink, how fast you drink it, your body size, how much you've eaten, your gender and even your emotional health.

2. Alcohol slows you down

Alcohol affects your body's responses. It slows down your brain which means you are more likely to have an accident.

Drinking alcohol can:

- affect our judgement and reasoning
- slow down our reactions
- upset our sense of balance and coordination
- impair our vision and hearing
- make us lose concentration and feel drowsy.

3. More young men die from drink driving than any other group of people

Since 1979, when detailed reporting began, there has been an almost six-fold reduction in the number killed in drink drive accidents and a similar drop in seriously injured casualties (1).

That's the good news.

The bad news is that drink drive accidents still account for 16% of all road deaths in Britain (2).

For drivers, alcohol can:

- reduce your ability to see distant objects – night vision can be reduced by 25% (3)
- make you have blurred and double vision
- reduce your ability to perceive what is happening around you
- make you lose your peripheral vision.

In the UK, the alcohol limit for drivers is 80mg of alcohol per 100ml of blood, 35mg per 100ml of breath or 107mg per 100ml of urine (4).

Visit our drink driving page for more information...

4. Alcohol increases the risk of accidents at home and work, and of fires

Stark statistics reveal the extent to which alcohol increases the risk of accidents of all kinds:

- **Accidents at home.** Alcohol is the single biggest cause of accidents at home. Of the 4,000 fatal accidents that happen in homes in the UK every year, 400 are alcohol-related (5).
- **Accidents at work.** Alcohol is a factor in up to one in four workplace accidents.
- **Fires.** In 2008, the London Fire Brigade estimated that almost a third of accidental fire deaths in the capital were alcohol related. (6).

5. The effects of alcohol can last longer than you think

Even after alcohol has left your bloodstream, you're more likely to have an accident. In one study, 14 hours after drinking, two-thirds of a group of pilots could not perform routine tasks in a simulator, despite the fact that all the alcohol had left their system (7).

If you've had an accident when you've been drinking, other effects are:

- Your recovery from injury may be hindered. This is because alcohol affects your circulation and the immune system.
- It's harder for doctors to diagnose serious conditions such as head injuries when a patient is drunk.
- Alcohol can interfere with anaesthetic and other medication, meaning operations and treatment may be delayed.

Three ways to avoid alcohol-related accidents

1. Don't drive, operate machinery, swim or take unnecessary risks.
2. Look out for friends who may be behaving recklessly.
3. Remember that your performance and judgement could still be affected by alcohol the day after a heavy drinking session.

Four top first aid tips to deal with alcohol-related accidents

1. If you are at the scene of an accident, call the emergency services as soon as possible. Once you've called for help, if the person who needs it is unconscious, make sure their

airway is open. If they are sick and their throat or tongue becomes blocked with vomit, they can choke and stop breathing.

2. If the person is breathing, place them in the recovery position. If they aren't breathing, perform chest compressions and breathe into their mouth.
3. If someone is bleeding, apply pressure to the wound using a clean cloth or piece of clothing. If they're in shock, lay them down, and raise and support the injured limb.
4. If someone is burned or scalded, cool the affected area in cold running water for at least 10 minutes, then cover the wound with a clean, non-fluffy cloth to prevent infection.

Alcohol related accidents facts

- Accident victims who have been drinking suffer more serious injuries than those who haven't (8).
- Younger people are more likely to have an alcohol-related accident than older people (9).
- 280 people were killed in drink drive accidents in 2012, an increase of around 17 per cent compared with 2011 and accounting for 16 per cent of all road deaths in Great Britain (10).

Staying in control

Drinking within the lower risk guidelines will help you keep your drinking under control. Here are three ways you can cut back:

1. Give alcohol-free days a go. If you drink regularly, your body starts to build up a tolerance to alcohol. This is one of the main reasons why many medical experts recommend taking regular days off from drinking to ensure you don't become addicted to alcohol. Test out having a break for yourself and see what positive results you notice.

2. Stress less. Some people drink alcohol to relax, but in reality alcohol can make you feel even more stressed out. Try not to make alcohol key to your after work wind down, and consider some alternative stress-busters like hitting the gym or having a hot bath.

3. Know what you're buying. Check out the ABV on a bottle of wine before you buy it. ABV stands for Alcohol by Volume, which is the percentage of the drink that is pure alcohol. It's not uncommon for a bottle of wine to be verging on 15% ABV, which could easily push you over the daily guidelines if you drink more than one glass. Producers are increasingly introducing 10% or lower ABV wines that are as palatable as their stronger counterparts. Look out for them when you're next buying a bottle.

3- http://www.ibtimes.com/us-traffic-fatalities-slightly-2012-alcohol-related-mayhem-rises-5-percent-according-latest-data

US Traffic Fatalities Up Slightly In 2012 As Alcohol-Related Mayhem Rises 5 Percent, According To The Latest Data

By Angelo Young

Deaths related to vehicle accidents on U.S. highways ticked up in 2012, but are still lower than they've been since 1950. NHTSA

Slightly more than 1,000 people were killed in 2012 on U.S. highways compared to the previous year, according to data released Thursday by the National Highway Traffic Safety Administration (NHTSA). But despite the 3 percent increase, to 33,561 fatalities, deaths remain at historic lows.

Among the other findings: Deaths related to driving under the influence of alcohol jumped 5 percent, to 10,322, with most incidents involving drivers with blood-alcohol levels over twice the legal limit of 0.08 percent.

The number of highway deaths last year were at levels unseen since 1950, when the U.S. had about 70 million cars compared to more than 254 million today, according to data from the U.S. Bureau of Transportation Statistics.

"Highway deaths claim more than 30,000 lives each year, and while we've made substantial progress over the past 50 years, it's clear that we have much more work to do," said U.S. Transportation Secretary Anthony Foxx in a statement announcing the data.

Motorcycle and semi-truck drivers saw an increase in death for the third consecutive year, by 7.1 percent and 8.9 percent, respectively. The data also shows that nearly two-thirds of people who die in nighttime car accidents in 2011 weren't wearing seatbelts.

The NHTSA has only recently started tracking deaths caused by distracted driving, and say it's still working on improving how it captures and quantifies data. This year it estimates that deaths from distracted driving ticked down to 3,328 from 3,360 while injuries from distracted driving increased 9 percent to about 421,000.

Mississippi topped the list of states that saw the biggest reduction in auto-related fatalities, while New Jersey saw the biggest decline in alcohol-related fatal accidents.

Since the NHTSA began tracking this metric in 1976, clusters of quarterly year-over-year declines in highway fatalities have take place in periods of time that have included economic recessions. Do GDP retreats reduce highway fatalities? NHTSA
It's interesting to note that since 1976 the year-over-year quarterly reductions in the number of fatalities on U.S. highways occurred in periods that continued economic recessions. Now, correlation doesn't imply causation, but it would make sense if there was, say, less cargo movement on the nation's highways, or fewer road trips from cash- strapped Americans. If that's the case then economic recessions have their bright sides in the form of less blood on the pavement.

4- http://www.solomonstarnews.com/news/national/16784-curse-of-alcohol-its-the-leading-cause-of-traffic-accidents-here

CURSE OF ALCOHOL - It's the leading cause of traffic accidents here

Thursday, 20 December 2012 15:18

ALCOHOL is the leading cause of traffic accidents during festive seasons in the last 12 years, statistics released yesterday revealed.

According to the Traffic Statistic report on road accidents in Honiara from 2000- 2012, there is an average of 226 accidents per year.

The report revealed that out of these accidents, an average of nine deaths and 47 injuries occurrences in a year, with a massive 57 percent of these accidents related to alcohol.

“These accidents were the results of careless driving, most significantly driving under the influence of liquor,” Director of Traffic, Inspector Frank Menesa said.

The report also stated a survey conducted by The Watch House on the month of September this year alone revealed that out of 120 returns received, 22.5 percent of drivers were moderately intoxicated whilst 25 percent were drunk.

“This would sum up to 47.5 percent of the persons arrested were under the influence of liquor.

“Drink driving is a major problem not only in Honiara but throughout the entire country, highlighting that the abuse of alcohol is the major cause of traffic accidents today,” Inspector Menesa said.

He warned that drivers caught driving whilst under the influence of liquor during this festive season will be arrested on the spot and be subjected to prosecution.

“Drink driving is the main cause of traffic accidents today, and now with the increasing number of vehicles in Honiara, the chances of more and more traffic accidents relating to alcohol abuse are likely to increase.

“We will fight to stop it therefore we urge all drivers and pedestrians to abide by all traffic rules and regulations,” Inspector Menesa said.

By JEREMY INIFIRI

5- http://www.hightimes.com/read/studies-alcohol%E2%80%99s-role-auto-accidents-far-greater-cannabis

Studies: Alcohol’s Role In Auto Accidents Far Greater Than That Of Cannabis

Alcohol remains far and away the most prevalent drug present in the blood of drivers involved in severe or fatal traffic accidents, according to a pair of recently published European studies.

In one study, published in the October issue of the journal Accident Analysis and Prevention, Danish researchers assessed the overall risk of a driver being severely injured in an accident after having consumed alcohol, illicit substances, or various types of pharmaceutical drugs,

including opioids, benzodiazepenes, and so-called 'Z-drugs' (sedatives/sleep aids) such as Ambien. Case samples (N = 2490) were collected from severely injured drivers in selected hospitals in six European countries. Cases were matched against nearly 16,000 randomly stopped controls. Odds rations were adjusted for age, gender and country.

Investigators reported: "The highest risk of the driver being severely injured was associated with driving positive for high concentrations of alcohol (≥0.8 g/L), alone or in combination with other psychoactive substances. ...The second most risky category contained various drug-drug combinations, amphetamines and medicinal opioids. Medium increased risk was associated with medium sized BACs (at or above 0.5 g/L, below 0.8 g/L) and benzoylecgonine. The least risky drug seemed to be cannabis and benzodiazepines and Z-drugs."

Specifically, drivers with concentrations of alcohol in their blood possessed an elevated risk of accident that was nearly 10 times more than that of sober drivers. Subjects who tested positive for blood/alcohol concentrations between .08 and 1.2 possessed an elevated risk that was more than 16 times that of sober drivers, while drivers with concentrations above 1.2 possessed an elevated risk that was nearly 80 times higher. By contrast, “The driver injury risk estimated with driving positive for cannabis was just above one.” Drivers who tested positive for the presence of legal medicines possessed an elevated risk that was nearly twice that of cannabis.

“It is concluded that among psychoactive substances alcohol still poses the largest problem in terms of driver risk of getting injured,” the authors determined.

They are not alone in their finding. Writing this month in the Scandinavian Journal of Public Health, Swedish researchers similarly concluded that alcohol is far more likely to be detected in the blood of fatally injured drivers than is the presence of either illicit substances or prescription drugs.

Investigators evaluated the concentrations of alcohol and other drugs in blood samples from Swedish drivers killed in road-traffic crashes over a four-year period (2008-2011). They concluded: “Not surprisingly, the legal drug alcohol topped the list of psychoactive substances identified in blood samples from fatally injured drivers, which confirms results and surveys

done in other nations…Indeed, in 76 percent of fatalities the autopsy BAC was over 1.0 g/L, which gives convincing evidence that these drivers were impaired at the time of the crash."

By contrast, investigators acknowledged that the presence of an illicit drug alone was only present in 2.5 percent of all fatal crashes. THC specifically was identified in the blood of 3 percent of all drivers, though in many of these cases other substances were also identified. The presence of prescription drugs was documented in nearly 8 percent of all fatal traffic accidents.

Other recent studies and reviews have similarly reported that cannabis is typically less likely to be associated with traffic injury compared to other controlled substances, including various prescription medications.

These findings call into question politicians' and law enforcements' supposed justification for the enactment of per se or so-called zero tolerant per se limits for the presence of cannabinoids. Such proposals forbid drivers from operating a motor vehicle if they have a detectable level of THC or its metabolite present in their bodily fluids above a specific, state-imposed threshold. To date, eleven US states -- Arizona, Delaware, Georgia, Illinois, Indiana, Iowa, Michigan, Oklahoma, Rhode Island, Utah, and Wisconsin -- impose zero tolerance per se thresholds for the presence of cannabinoids and/or their metabolites. Five states impose non-zero-tolerant per se thresholds for cannabinoids in blood: Montana (5ng/ml), Pennsylvania (1ng/ml), Ohio (2ng/ml), Nevada (2ng/ml) and Washington (5ng/ml). In Colorado, the presence of THC/blood levels above 5ng/ml "gives rise to permissible inference that the defendant was under the influence." Nonetheless, despite the growing popularity of these laws, a recent white paper analyzing their impact found "no evidence that per se drugged driving laws reduce traffic fatalities."

Paul Armentano is deputy director of NORML.

6- http://www.cdc.gov/motorvehiclesafety/impaired_driving/impaired-drv_factsheet.html

Impaired Driving: Get the Facts

Every day, almost 30 people in the United States die in motor vehicle crashes that involve an alcohol-impaired driver. This amounts to one death every 48 minutes.1 The annual cost of alcohol-related crashes totals more than $51 billion.2

Thankfully, there are effective measures that can help prevent injuries and deaths from alcohol-impaired driving.

How big is the problem?

- In 2010, 10,228 people were killed in alcohol-impaired driving crashes, accounting for nearly one-third (31%) of all traffic-related deaths in the United States.1
- Of the 1,210 traffic deaths among children ages 0 to 14 years in 2010, 211 (17%) involved an alcohol-impaired driver.1
- Of the 211 child passengers ages 14 and younger who died in alcohol-impaired driving crashes in 2010, over half (131) were riding in the vehicle with the alcohol-impaired driver.1
- In 2010, over 1.4 million drivers were arrested for driving under the influence of alcohol or narcotics.3 That's one percent of the 112 million self-reported episodes of alcohol-impaired driving among U.S. adults each year.4
- Drugs other than alcohol (e.g., marijuana and cocaine) are involved in about 18% of motor vehicle driver deaths. These other drugs are often used in combination with alcohol.5

CDC Vital Signs: Drinking and Driving: A Threat to Everyone

US adults drank too much and got behind the wheel about 112 million times in 2010. Alcohol-impaired drivers* are involved in about 1 in 3 crash deaths, resulting in over 10,000 deaths in 2010.

*These drivers had blood alcohol concentrations of at least 0.08%. This is the illegal blood alcohol concentration level for adult drivers in the United States.

Learn more

Who is most at risk?

- Young people:

- At all levels of blood alcohol concentration (BAC), the risk of being involved in a crash is greater for young people than for older people.6
- Among drivers with BAC levels of 0.08 % or higher involved in fatal crashes in 2010, more than one out of every 3 were between 21 and 24 years of age (34%). The next two largest groups were ages 25 to 34 (30%) and 35 to 44 (25%).1

- Motorcyclists:
  - Among motorcyclists killed in fatal crashes in 2010, 28% had BACs of 0.08% or greater. 1
  - Nearly half of the alcohol-impaired motorcyclists killed each year are age 40 or older, and motorcyclists ages 40-44 have the highest percentage of deaths with BACs of 0.08% or greater (44%).7
- Drivers with prior driving while impaired (DWI) convictions:
  - Drivers with a BAC of 0.08% or higher involved in fatal crashes were four times more likely to have a prior conviction for DWI than were drivers with no alcohol in their system? (8% and 2%, respectively).1

A Closer Look

- **Sobriety checkpoints**: traffic stops where law enforcement officers assess drivers' level of alcohol impairment. These checkpoints consistently reduce alcohol-related crashes, typically by 9%.
- **Ignition interlocks**: devices that are installed in the vehicles of people who have been convicted of driving while impaired. They prevent operation of the vehicle by anyone with a blood alcohol concentration (BAC) above a specified safe level (usually 0.02% – 0.04%). When installed, interlocks are associated with about a 70% reduction in arrest rates for impaired driving.

How can deaths and injuries from impaired driving be prevented?

Effective measures include:

- Actively enforcing existing 0.08% BAC laws, minimum legal drinking age laws, and zero tolerance laws for drivers younger than 21 years old in all states.3,8,9
- Promptly taking away the driver's licenses of people who drive while intoxicated.10
- Using sobriety checkpoints.11
- Putting health promotion efforts into practice that influence economic, organizational, policy, and school/community action.12,13

- Using community-based approaches to alcohol control and DWI prevention.10,14,15
- Requiring mandatory substance abuse assessment and treatment, if needed, for DWI offenders.16
- Raising the unit price of alcohol by increasing taxes.17,18

Areas for continued research:

- Reducing the illegal BAC threshold to 0.05%.17,19,20
- Mandatory blood alcohol testing when traffic crashes result in injury.17

Effects of BAC

The more alcohol you consume, the more impaired you become. Learn how your blood alcohol concentration (BAC) affects your ability to drive.

What safety steps can individuals take?

Whenever your social plans involve alcohol, make plans so that you don't have to drive after drinking. For example:

- Prior to any drinking, designate a non-drinking driver when with a group.
- Don't let your friends drive impaired. Take their keys away.
- If you have been drinking, get a ride home or call a taxi.
- If you're hosting a party where alcohol will be served, remind your guests to plan ahead and designate their sober driver; offer alcohol-free beverages; and make sure all guests leave with a sober driver.

7- http://www.kaieteurnewsonline.com/2010/08/23/alcohol-consumption-major-cause-of-road-accidents-in-berbice/

Alcohol consumption major cause of road accidents in Berbice

AUGUST 23, 2010 | BY KNEWS | FİLED UNDER NEWS

- 334 drunk driving cases recorded

As the call gets louder for something to be done about the raving consumption of alcohol in Berbice, the police are at their wits end in trying to cope with the spin-off of its overuse. Alcohol consumption, which leads to drunken driving, is one area that has reached chronic proportions in the Ancient County and is a major worry for the Berbice (B division) Police

Traffic Department, since it is the major cause of road accidents throughout the country.
The Division has so far recorded more than three times the number of drunk driving cases than any other Police Division in the country.
The figure in Berbice is at a frightening 334, compared with 'A' division with 100.

Assistant Superintendent Calvin Brutus
In fact, if the figures for the other Divisions are added up, it will not reach the total for B Division.
These were some of the startling revelations told to Kaieteur News by B Division Traffic Chief, Assistant Superintendent, Calvin Brutus. Brutus in giving an overall view of the traffic situation in the Ancient County, said that quite a number of accidents are caused by drivers who are under the influence of alcohol. Speeding and animals on the road he said are other major concerns for his department.
The Traffic Officer said, "Drinking and driving is a major worry for the police in Berbice, especially in eastern Berbice with the Corentyne division being a standout for the malpractice. Motorists are not heeding our advice not to drink and drive and are doing so with impunity. We usually have our work cut out, especially when there are major events in Berbice like shows, horse racing, cricket and activities on the Beach."
The situation has become chronic and the police are trying their best to cope with the state of affairs, but they are terribly under staff.
"Right now we are working with about 30 percent of our required capacity, and as you know, the number of vehicles on the roads has increased about 1000 times to what it was in the 60s and 70s and now we have far less ranks than we had then," Assistant Superintendent Brutus told this newspaper.
Giving some figures for the year so far, the Officer said that to date, there were 10 fatal accidents, compared to the corresponding period last year, which saw 15 fatal accidents and 16 deaths.
In terms of serious accidents, there is an increase this year with the figures reading 47 in comparison to 41 for the corresponding period in 2009. The other two categories of accidents, namely- Minor and Damage accidents, have also seen the figures increasing from last year.
The Officer said that in terms of fatal accidents, July month has been the worst so far, with four fatalities.
According to Brutus, there needs to be more co-operation from other departments and agencies if the problem is to be solved. Many times when drivers are involved in accidents

they would flee the scene and return, or give up, later.

“Some will go to the hospital and be admitted so that we cannot test them for Alcohol. The Hospital and doctors need to co-operate and do blood tests, but many times the doctors do not administer the tests even if we request, stating that they do not have the necessary equipment. So far, four licenses have been suspended and one person’s blood was successfully tested positive for alcohol and he has been prosecuted,” Brutus stated.

Speeding is another major cause of concern, said Brutus, with motorists continuing to ignore the speed limits.

“The Berbice areas have vast stretches of straight and lonely roads, so the motorists will take advantage of our shortage of human resources to overdo the thing.”

Brutus said that the Berbice Traffic Department has adequate equipment, including motorcycles and vehicles, radar guns and breathalyzers to do the job but with the shortage of manpower, it is a difficult task to catch all the perpetrators. He believes the speed limit in most cases is adequate, but persons are just indiscipline.

“Leave early, drive slowly and arrived safely,” he advises. Animals also worry Traffic Department in the Ancient County.

In fact, several accidents, including fatalities, are caused by animals roaming the streets. Three of the fatalities so far were as a result of animals, including the only double fatality, involving two cars on the East Canje Public Road.

8- http://www.kidzworld.com/article/9591-the-facts-on-drunk-driving

The Facts on Drunk Driving

Love

December marks the time to observe Drunk and Drugged Driving Prevention Month, so Kidzworld is bringing you the cold, hard facts on **drinking and driving**.

The Effects of Alcohol

Alcohol is a **depressant** that **slows down** your brain and body. Your speech gets slurred, your **vision gets blurry**, you get dizzy and **lose your balance**, and you feel disoriented and confused. In that state, not even Superman could **drive a car**.

Drinking and Driving Kills

Even though drinking and driving is a **crime**, thousands of people continue to get behind the wheel - and **kill thousands of innocent people** in alcohol-related crashes every year. That's about **one person every 30 minutes** in the United States.

Teens and Alcohol

The **legal drinking age** in the US is **21**, but nearly 80% of **high school students** have admitted to trying alcohol. With drinking and driving being the **number one killer** of young people,if someone you know has a problem find out what you can do to help put a stop to **underage** drinking and driving.

- Be responsible and **don't drink**. It may be hard when all your friends are drinking, but figure out what's more important - being popular or being alive?
- Don't be embarrassed to **ask your parents** for rides. Even if you worry you'll be in trouble for **underage drinking**, that sure beats being killed in a car accident.
- Never get in a car with someone who **has been drinking**.
- If you're going to a party where there's alcohol, choose someone to be the **designated driver**. The DD is the person who won't drink and will **drive everyone home** at the end of the night.

Did U Know?

- December is **Drunk and Drugged Driving Prevention Month**.
- In 2006, an estimated **17,941 people** died in alcohol-related traffic accidents.
- In 2006, 25% of people aged 15 to 20 who were killed in motor vehicle accidents had been drinking alcohol.
- People aged **15 to 34** are most likely to drive under the influence of **alcohol or drugs**.

9- http://report.nih.gov/nihfactsheets/ViewFactSheet.aspx?csid=24

Alcohol-Related Traffic Deaths

YESTERDAY

- In the mid 1970s, alcohol was a factor in over 60% of traffic fatalities. Traffic crashes were the leading cause of alcohol-related deaths and two-thirds of traffic deaths among persons aged 16 to 20 involved alcohol.
- At that time, preventive measures consisted primarily of efforts to reduce harm from alcohol by identifying and treating middle-aged individuals convicted of driving under the influence with established or advanced cases of alcoholism.

TODAY

- Since the early 1980s, alcohol-related traffic deaths per population have been cut in half with the greatest proportional declines among persons 16-20 years old.
- Reductions in driving after drinking saved more than 150,000 lives between 1982 and 2001 — more than the combined total saved by increases in seat belt use, airbags, and motorcycle and bicycle helmets.
- Today alcohol is involved in 37% of all traffic deaths among persons aged 16 to 20.
- Of particular importance for prevention efforts is the recent realization that alcohol abuse, dependence, and related problems such as alcohol-impaired driving must be addressed throughout the lifespan, not just at middle age.
- Indeed, the evidence now suggests a need to target prevention efforts to young people. Analyses by NIH scientists indicate that over 70% of people in crashes caused by alcohol met alcohol dependence criteria, but most have never been arrested or received treatment.

- NIH studies revealed that young people who began drinking before age 15 are four times more likely to develop alcohol dependence during their lifetime than those who began drinking at age 21 or later.

- Those that drank before age 15 are also seven times more likely to report having been in a traffic crash because of drinking both during adolescence and adulthood.

- NIH research identified several approaches to screening and early intervention that reduced drinking and alcohol related traffic crashes among college students and other underage populations.

- Numerous NIH-funded studies over the last three decades established the effectiveness of raising the minimum legal drinking age to 21 in reducing both drinking and alcohol-related crashes among persons under age 21. The U.S. Department of Transportation estimates that such laws, now in effect in all states, prevent 1,000 traffic deaths each year.

- In the 1980s, several states established laws for zero alcohol tolerance for drivers under the age of 21. Research funded by NIH established the effectiveness of this approach which led to the passage of Zero Tolerance Laws in all 50 States by the late 1990s.

- The number of alcohol-related traffic deaths among 16 to 20 year-olds in the U.S. decreased from 5,244 in 1982 to 1,987 in 2008 in large measure because of the legal drinking age of 21 and Zero Tolerance Laws.

- Several NIH-supported studies demonstrated that comprehensive, community-based intervention programs can further reduce traffic deaths and other alcohol-related harm beyond that achieved through age 21 drinking laws.

TOMORROW

- *Preventing alcohol problems at lifestages*. Research aimed at understanding the interactions of alcohol with stages of life will enable us to address the prevention of alcohol problems in a lifestage¬appropriate manner. For example, identifying specific genetic, behavioral, biological, or environmental factors that contribute to drinking

initiation and the development of alcohol dependence at various lifestages will foster the rational design of prevention strategies tailored to each individual. The potential risks associated with driving after drug use, particularly in combination with alcohol, need to be examined so that effective prevention initiatives are identified.

- *Improving diagnosis*. Studies will reveal strategies for expanding screening and brief intervention opportunities in underage populations, among whom alcohol use disorders remain under-diagnosed; a major goal of such strategies will be to reduce alcohol-impaired driving.

- *Improving community-based prevention programs*. Research to expand and improve comprehensive community programs that strive to reduce alcohol-impaired driving, injuries, and fatalities will save lives and reduce morbidity in future generations.

10- http://santiagotimes.cl/more-chileans-die-from-alcohol-than-in-traffic-accidents/
Health & Environment News

More Chileans Die From Alcohol Than In Traffic Accidents

By **Editor**
Published On: Thu, Feb 17th, 2011

More Chileans die each year from alcohol-related liver cirrhosis than in car accidents, a recent World Health Organization (WHO) study found.

The average alcohol consumption of Chileans over the age of 15 is 37 percent higher than the world average of 6.1 liters per year.

Chileans on average consume 8.6 liters of alcohol each year, and habitual drinkers consume 12.6 liters each year. Chile's rates of alcohol consumption are the seventh highest among the 22 countries of North, Central, and South America.

The most popular alcoholic drink in Chile is wine, accounting for 38 percent of consumption.

Distilled spirits, including the national grape-based liquor pisco, are the second-most popular, comprising of 32 percent of alcohol consumption. Beer makes up the remaining 30 percent of alcohol consumed in Chile.

Forty of every 100,000 men die from liver cirrhosis every year, compared to only 28 die in car accidents. Only 10.6 of every 100,000 women die of cirrhosis, and 5.6 in car accidents. The higher level of cirrhosis in men can be explained by their disproportionate alcohol intake. Chilean men drink, on average, 16.7 liters a year while women drink less than half, or 8.2 liters.

Furthermore, 6.7 percent of Chilean men and 1.4 percent of women were identified as having drinking problems, according to the WHO. Drinking problems include harmful levels of consumption, alcohol dependency and mental problems associated with alcohol.

Despite a gradual rise in alcohol consumption during the 1980s and 1990s, these figures come as no surprise to Chileans. National consumption of wine, beer, and spirits has remained relatively steady since the year 2000

The harmful use of alcohol is a global problem which compromises both individual and social development. It results in 2.5 million deaths each year. It also causes harm far beyond the physical and psychological health of the drinker. It harms the well-being and health of people around the drinker. An intoxicated person can harm others or put them at risk of traffic accidents or violent behaviour, or negatively affect co-workers, relatives, friends or strangers. Thus, the impact of the harmful use of alcohol reaches deep into society.

Harmful drinking is a major determinant for neuropsychiatric disorders, such as alcohol use disorders and epilepsy and other noncommunicable diseases such as cardiovascular diseases, cirrhosis of the liver and various cancers. The harmful use of alcohol is also associated with several infectious diseases like HIV/AIDS, tuberculosis and sexually transmitted infections (STIs). This is because alcohol consumption weakens the immune system and has a negative effect on patients' adherence to antiretroviral treatment.

A significant proportion of the disease burden attributable to harmful drinking arises from unintentional and intentional injuries, including those due to road traffic accidents, violence,

and suicides. Fatal injuries attributable to alcohol consumption tend to occur in relatively younger age groups.

11- http://www.who.int/mediacentre/factsheets/fs349/en/index.html

Who is at risk for harmful use of alcohol?

The degree of risk for harmful use of alcohol varies with age, sex and other biological characteristics of the consumer. In addition the level of exposure to alcoholic beverages and the setting and context in which the drinking takes place also play a role. For example, alcohol is the world's third largest risk factor for disease burden; it is the leading risk factor in the Western Pacific and the Americas and the second largest in Europe. Furthermore, 320 000 young people between the age of 15 and 29 die from alcohol-related causes, resulting in 9% of all deaths in that age group. Alcohol consumption by an expectant mother may cause fetal alcohol syndrome and pre-term birth complications, which are detrimental to the health and development of neonates.

The impact of alcohol consumption on disease and injury is largely determined by two separate but related dimensions of drinking:

- the total volume of alcohol consumed, and
- the pattern of drinking.

A broad range of alcohol consumption patterns, from occasional hazardous drinking to daily heavy drinking, creates significant public health and safety problems in nearly all countries. One of the key characteristics of the hazardous pattern of drinking is the presence of heavy drinking occasions, defined as consumptions of 60 or more grams of pure alcohol.

Ways to reduce the burden from harmful use of alcohol

The health, safety and socioeconomic problems attributable to alcohol can be effectively reduced and requires actions on the levels, patterns and contexts of alcohol consumption and the wider social determinants of health.

Countries have a primary responsibility for formulating, implementing, monitoring and evaluating public policies to reduce the harmful use of alcohol. A substantial scientific knowledge base exists for policy-makers on the effectiveness and cost–effectiveness of the following strategies:

- regulating the marketing of alcoholic beverages, (in particular to younger people);
- regulating and restricting availability of alcohol;
- enacting appropriate drink-driving policies;
- reducing demand through taxation and pricing mechanisms;
- raising awareness and support for policies;
- providing accessible and affordable treatment for people with alcohol-use disorders; and
- implementing screening programmes and brief interventions for hazardous and harmful use of alcohol.

WHO response

WHO aims is to reduce the health burden caused by the harmful use of alcohol and, thereby, to save lives, prevent injuries and diseases and improve the well-being of individuals, communities and society at large.

WHO emphasizes the development, testing and evaluation of cost-effective interventions for harmful use of alcohol as well as creating, compiling and disseminating scientific information on alcohol use and dependence, and related health and social consequences.

In 2010, the World Health Assembly approved a resolution to endorse a global strategy to reduce the harmful use of alcohol. The resolution urged countries to strengthen national responses to public health problems caused by the harmful use of alcohol.

The global strategy to reduce the harmful use of alcohol represents a collective commitment by WHO Member States to sustained action to reduce the global burden of disease caused by harmful use of alcohol. The strategy includes evidence-based policies and interventions that

can protect health and save lives if adopted, implemented and enforced. The strategy also contains a set of principles that should guide the development and implementation of policies; it sets priority areas for global action, recommends target areas for national action and gives a strong mandate to WHO to strengthen action at all levels.

The policy options and interventions available for national action can be grouped into 10 recommended target areas, which are mutually supportive and complementary. These 10 areas are:

- leadership, awareness and commitment;
- health services' response;
- community action;
- drink–driving policies and countermeasures;
- availability of alcohol;
- marketing of alcoholic beverages;
- pricing policies;
- reducing the negative consequences of drinking and alcohol intoxication;
- reducing the public health impact of illicit alcohol and informally produced alcohol;
- monitoring and surveillance.

12- http://www.who.int/mediacentre/factsheets/fs349/en/index.html

Drinking and driving – an international good practice manual

The second good practice manual, on drinking and driving, was launched by the Global Road Safety Partnership (GRSP) ahead of the UN Road Safety Week.

Drinking and driving is one of the main causes of road crashes worldwide. In high-income countries about 20% of fatally injured drivers have excess alcohol in their blood, while in some low- and middle-income countries these figures may be up to 69%. Effective drinking and driving programmes have the potential to save thousands of lives, and was identified by

the World report on road traffic injury prevention as a proven and effective measure to reduce death and injury on the road.

The good practice manual *Drinking and driving, a road safety manual for decision-makers and practitioners,* proposes simple, effective and low-cost solutions to prevent drinking and driving that can be implemented on a national or local level. It targets governments, non-governmental organizations and road safety practitioners, particularly those in low and middle-income countries.

The manual draws on experience from countries that have succeeded in reducing drinking and driving and includes guidance on the following:

- The background evidence to start a drinking and driving programme,
- The steps needed to undertake a problem assessment in a country,
- How to plan and implement a programme, including setting up a working group, developing a plan, examples of laws and enforcement, how to develop public education and publicity campaigns, and finally how to evaluate the programme.

In developing this manual the authors have drawn on case studies from around the world to illustrate ‘good practice’. The manual will be implemented in a number of countries over the next two years, starting in China through the Global Road Safety Partnership’s GRSI initiative, but extending to cover countries from Africa, Latin America and the Middle East.

Drinking and driving was produced in collaboration with the WHO, World Bank, and FIA Foundation as the second in a series of road safety good practice manuals being published as part of the UN Road Safety Collaboration.

GRSP Chief Executive David Silcock said "drinking and driving is one of the major causes of road crashes and often innocent victims, not the drunk driver, are killed or maimed. We will work closely with our partners around the world to apply this good practice and urge all committed to road safety to take a long hard look at the issue in their country".

13- http://bernews.com/2013/11/alcohol-plays-major-role-in-traffic-fatalities/

Alcohol Plays "Major Role" In Traffic Fatalities

November 23, 2013 | 98 Comments

A new study by the Department of Health [DOH] confirmed that alcohol plays a major role in Bermuda's road traffic fatalities.

The study, entitled, "The Influence of Alcohol in Road Traffic Accidents and Fatalities in Bermuda over the Past Three Years" also found that there is a correlation between heart disease and excessive or prolonged alcohol consumption.

The findings of the study were made available for the Annual Meeting of the Bermuda Drug Information Network [BerDIN] on October 24th 2013.

The Ministry said, "Alcohol is one of the underlying causes in accidents of all types, whether domestic, recreational or control of vehicles [e.g. motor cycles, motor cars or marine vehicles]. Under the Road Traffic Act 1947, Bermuda's legal blood alcohol limit is 80 milligrams per 100 milliliters."The aim of this DOH study was to determine if there is a correlation between blood alcohol levels in drivers of vehicles involved in road traffic accidents and fatalities and also to determine if there is some correlation between alcohol and morbidity rates. The information used was taken from pathology and toxicology findings from 2010 to present.

"When one is suspected of driving under the influence [DUI], blood samples are only taken when an accident occurs that renders the person unable to blow into a breath analyzer due to their injuries. Venous blood samples are transported to the lab for analysis.

"If a person succumbs to their injuries, an autopsy in carried out. In this case of sudden death, biological samples are collected and sent for toxicology analyses. The findings are then reported and sent to the pathologist to determine factors contributing to death.

"The determination of alcohol content is carried out by chromatography which allows for a fast, simple and very reproducible measurement of alcohol content. Samples collected in preserved specimen tubes were analysed and the data collated according to its categories [e.g. DUI, RTF (Road Traffic Fatality) and "sudden other" were alcohol was present].

Data Findings

In 2010 there were 15 suspected DUI cases where blood was taken, and nine of these individuals contained alcohol in their systems.

Eight Road Traffic Fatalities that same year had alcohol in their systems, with documented injuries ranging from sub cranial or sub dural hemorrhaging to blunt impact or chest and abdominal trauma.

Out of 32 sudden deaths in 2010, 50 percent contained alcohol and/or drugs of abuse. 94% were males aged from 20 to 65 years.

Some of the circumstances around the sudden deaths documented heart disease, drowning, heart failure-pulmonary oedema, found unresponsive, left ventricle failure -fatty liver cardiac arrest, sudden collapse, homicide and coronary artery occlusion.

In 2011 there were 27 sudden deaths that included RTFs and 23 suspected DUI cases. Due to the closure of the lab at the end of 2010, some of the 2011 cases were sent overseas; therefore the results are not represented in this study. However, cases received during the latter part of 2011 were analysed in the lab which resulted in four having alcohol present in their system and were all male.

In 2012 there were 23 suspected DUI cases where blood was taken, of which 14 had alcohol present in their system.

There were four RTFs, listing various injuries due to trauma, which had alcohol in their system and out of 43 sudden deaths in 2012, 21 percent of the samples contained alcohol and or drugs of abuse recording only one being female.

Circumstances around sudden death cases for that year included: found unresponsive, suspected drug user, hemorrhage, gunshot wound, homicide, heart attack and heart disease.

Until October of this current year, 2013, 11 suspected DUI cases were submitted where blood was taken and two showed alcohol present. However, others had either no alcohol or had tested positive for a drug(s).

Five RTFs were confirmed to have alcohol in their system and some in combination with a drug(s) and nine sudden deaths contained alcohol or drugs and alcohol.

Circumstances around sudden deaths were alcohol or alcohol and drugs were confirmed documented homicide, Ethanol cirrhosis, homicide, found unresponsive and heart disease. They were all noted to be male.

Conclusion

From the review of the data it can be seen that alcohol plays a major role in RTFs. The cases of DUI, where venous blood is drawn and analyzed, can be thought of as those who have just missed being a RTF.

This study suggests that chronic alcohol abuse is associated with an increased risk of sudden death. Frequently listed pathology findings include heart disease, fatty liver [ethanol cirrhosis] and heart failure. These findings are all well documented in literature in connection with cases of prolonged or excessive alcohol consumption [link].

Most of Bermuda's RTFs were single vehicle accidents which took place late at night or in the early hours in the morning. It is important to underscore that RTFs that occurred during the day did not contain any alcohol.

The World Health Organization provides well documented information on the Global Information System on Alcohol and Health monitoring trends on alcohol related harm. [link]

Comments

"This study further highlights the adverse impact of alcohol on, not only individuals and their families, but also on our society and economy," said the Minister of Health and Seniors Patricia Gordon-Pamplin.

"The Ministry of Health and Seniors wants Bermuda residents to think twice before getting behind the wheel after drinking; or into a vehicle where the driver has consumed alcohol, especially leading up to and during the holiday season.

"DUI and excessive or frequent alcohol consumption is making a significant adverse impact on families and in communities. The data speaks for itself."

Chief Medical Officer Dr. Cheryl Peek-Ball said she supported the research and the importance of bringing to light the significant role that alcohol plays in Bermuda in sudden death, injury and chronic disease.

“This study allows us to acknowledge the social and health impact of alcohol and provides evidence to challenge the common perception that this legal, socially accepted drug is harmless,” she said. “Consequences of irresponsible or excessive use are clearly very significant and should not be ignored.”

The Department for National Drug Control said, “Alcohol is the most commonly used substance among Bermuda’s residents. Its use and misuse are widely documented in local research among youths, college-age students, and the adult population. For many residents, alcohol has become engrained in the social fabric. The environment in Bermuda is such that alcohol is easily accessible, affordable, and readily available to all residents; even those yet to reach the legal age of consumption [18 years].

“The Bermuda Assessment Referral Center [BARC] has reported that amongst all new clients [n=149] assessed for substance use dependence or abuse in 2012, 73 indicated alcohol as their drug of choice; and of those persons referred for residential treatment services, at both the Men’s and Women’s Treatment Centers, alcohol is usually indicated as the first substance of experimentation with the age of first use being as low as eight years for some clients.

“In 2012, four men who presented for services said their primary drug of choice was alcohol; whereas, there were no women in treatment who said their primary drug of choice was alcohol during the same time period.

“The Department for National Drug Control advocates for responsible alcohol behaviour and advises that if you do not currently drink alcohol, don’t start. If you do consume alcohol, do so responsibly.”

14- http://www.drugabuse.gov/publications/drugfacts/drugged-driving

DrugFacts: Drugged Driving

Revised October 2013

Use of any psychoactive (mind-altering) drug makes it highly unsafe to drive a car and is illegal—just like driving after drinking alcohol. Drugged driving puts at risk not only the driver but also passengers and others who share the road.

Why Is Drugged Driving Hazardous?

The effects of specific drugs of abuse differ depending on how they act in the brain, but all impair faculties necessary for the safe operation of a vehicle. These faculties include motor skills, balance and coordination, perception, attention, reaction time, and judgment. Even small amounts of some drugs can have a measurable effect on driving ability.

How Many People Take Drugs and Drive?

According to the 2012 National Survey on Drug Use and Health (NSDUH), an estimated 10.3 million people aged 12 or older (or 3.9 percent of adolescents and adults) reported driving under the influence of illicit drugs during the year prior to being surveyed. This was higher than the rate in 2011 (3.7percent) and lower than the rate in 2002 (4.7 percent). By comparison, in 2012, an estimated 29.1 million persons (11.2 percent) reported driving under the influence of alcohol at least once in the past year. (This percentage has dropped since 2002, when it was 14.2 percent.)

According to the National Highway Traffic Safety Administration's (NHTSA) 2007 National Roadside Survey, more than 16 percent of weekend, nighttime drivers tested positive for illegal, prescription, or over-the-counter drugs. More than 11 percent tested positive for illicit drugs.

According to NSDUH data, men are more likely than women to drive under the influence of an illicit drug or alcohol. And young adults aged 18 to 25 are more likely to drive after taking drugs than other age groups.

How Often Does Drugged Driving Cause Accidents?

It is hard to measure the exact contribution of drug intoxication to driving accidents, because blood tests for drugs other than alcohol are inconsistently performed, and many drivers who

cause accidents are found to have both drugs and alcohol in their system, making it hard to determine which substance had the greater effect.

Teens and Drugged Driving

Vehicle accidents are the leading cause of death among young people aged 16 to 19. When teens' relative lack of driving experience is combined with the use of marijuana or other substances that affect cognitive and motor abilities, the results can be tragic.

Between 2001 and 2006, 14.1 percent of high school seniors responding to the Monitoring the Future survey admitted to driving under the influence of marijuana in the 2 weeks prior to the survey.

One NHTSA study found that in 2009, 18 percent of fatally injured drivers tested positive for at least one illicit, prescription, or over-the-counter drug (an increase from 13 percent in 2005).

What Drugs Contribute to Accidents?

After alcohol, THC (delta-9-tetrahydrocannabinol), the active ingredient in marijuana, is the substance most commonly found in the blood of impaired drivers, fatally injured drivers, and motor vehicle crash victims. Studies in several localities have found that approximately 4 to 14 percent of drivers who sustained injury or died in traffic accidents tested positive for THC.

A study of over 3,000 fatally injured drivers in Australia showed that when THC was present in the blood of the driver, he or she was much more likely to be at fault for the accident. Additionally, the higher the THC concentration, the more likely the driver was to be culpable.

Considerable evidence from both real and simulated driving studies indicates that marijuana can negatively affect a driver's attentiveness, perception of time and speed, and ability to draw on information obtained from past experiences. Research shows that impairment increases significantly when marijuana use is combined with alcohol.

Other drugs commonly implicated in accidents include opiates, amphetamines, benzodiazepines, and cocaine. For instance, in a 2003 study of seriously injured drivers admitted to a Maryland shock trauma center, drugs other than alcohol were present in more than half of the cases. These included marijuana (26.9 percent), cocaine (11.6 percent),

benzodiazepines (11.2 percent), and opiates and other prescription drugs (10.2 percent). A quarter of the cases involved both alcohol and other drugs.

Many prescription drugs including opioid pain relievers and benzodiazapenes prescribed for anxiety or sleep disorders come with warnings against the operation of machinery—including motor vehicles—for a specified period of time after use. When prescription drugs are abused (taken without medical supervision), impaired driving and other harmful reactions become much more likely.

15- http://www.govsubportal.com/news/item/1497-the-influence-of-alcohol-in-road-traffic-accidents-and-fatalities-in-bermuda-over-the-past-three-years

The Influence of Alcohol in Road Traffic Accidents and Fatalities in Bermuda over the Past Three Years.

Friday, 22 November 2013 20:00

A new study by the Department of Health (DOH) confirms that alcohol plays a major role in Bermuda's road traffic fatalities.

The study, entitled, The Influence of Alcohol in Road Traffic Accidents and Fatalities in Bermuda over the Past Three Years also found that there is a correlation between heart disease and excessive or prolonged alcohol consumption. The findings of the study were made available for the Annual Meeting of the Bermuda Drug Information Network (BerDIN) on October 24th 2013.

Ethanol (Alcohol) in alcoholic drinks acts as a central nervous system depressant. The effects of alcohol consumption include lowered inhibitions, loss of coordination, impaired judgment and sensory perception, blurred vision, nausea, slower information processing and slower reaction times. It also must be noted that for tolerant people, these effects may occur only when higher alcohol levels of intoxication are achieved than with moderate drinkers. However with increased intoxication comes more severe effects and at any level, the combination of alcohol and drugs can increase effects and increase the risk of death.

Alcohol is one of the underlying causes in accidents of all types, whether domestic, recreational or control of vehicles (e.g. motor cycles, motor cars or marine vehicles). Under the Road Traffic Act 1947, Bermuda's legal blood alcohol limit is 80 milligrams per 100 milliliters.

The aim of this DOH study was to determine if there is a correlation between blood alcohol levels in drivers of vehicles involved in road traffic accidents and fatalities and also to determine if there is some correlation between alcohol and morbidity rates. The information used was taken from pathology and toxicology findings from 2010 to present.

When one is suspected of driving under the influence (DUI), blood samples are only taken when an accident occurs that renders the person unable to blow into a breath analyzer due to their injuries. Venous blood samples are transported to the lab for analysis. If a person succumbs to their injuries, an autopsy in carried out. In this case of sudden death, biological samples are collected and sent for toxicology analyses. The findings are then reported and sent to the pathologist to determine factors contributing to death.

The determination of alcohol content is carried out by chromatography which allows for a fast, simple and very reproducible measurement of alcohol content. Samples collected in preserved specimen tubes were analysed and the data collated according to its categories (e.g. DUI, RTF (Road Traffic Fatality) and "sudden other" were alcohol was present).

Data Findings

In 2010 there were 15 suspected DUI cases where blood was taken, and nine of these individuals contained alcohol in their systems.

Eight Road Traffic Fatalities that same year had alcohol in their systems, with documented injuries ranging from sub cranial or sub dural hemorrhaging to blunt impact or chest and abdominal trauma.

Out of 32 sudden deaths in 2010, 50 percent contained alcohol and/or drugs of abuse. 94% were males aged from 20 to 65 years.

Some of the circumstances around the sudden deaths documented heart disease, drowning, heart failure-pulmonary oedema, found unresponsive, left ventricle failure -fatty liver cardiac arrest, sudden collapse, homicide and coronary artery occlusion.

In 2011 there were 27 sudden deaths that included RTFs and 23 suspected DUI cases. Due to the closure of the lab at the end of 2010, some of the 2011 cases were sent overseas; therefore the results are not represented in this study. However, cases received during the latter part of 2011 were analysed in the lab which resulted in four having alcohol present in their system and were all male.

In 2012 there were 23 suspected DUI cases where blood was taken, of which 14 had alcohol present in their system.

There were four RTFs, listing various injuries due to trauma, which had alcohol in their system and out of 43 sudden deaths in 2012, 21 percent of the samples contained alcohol and or drugs of abuse recording only one being female.

Circumstances around sudden death cases for that year included: found unresponsive, suspected drug user, hemorrhage, gunshot wound, homicide, heart attack and heart disease.

Until October of this current year, 2013, 11 suspected DUI cases were submitted where blood was taken and two showed alcohol present. However, others had either no alcohol or had tested positive for a drug(s).

Five RTFs were confirmed to have alcohol in their system and some in combination with a drug(s) and nine sudden deaths contained alcohol or drugs and alcohol.
Circumstances around sudden deaths were alcohol or alcohol and drugs were confirmed documented homicide, Ethanol cirrhosis, homicide, found unresponsive and heart disease. They were all noted to be male.

Conclusion

From the review of the data it can be seen that alcohol plays a major role in RTFs. The cases of DUI, where venous blood is drawn and analyzed, can be thought of as those who have just missed being a RTF.

This study suggests that chronic alcohol abuse is associated with an increased risk of sudden death. Frequently listed pathology findings include heart disease, fatty liver (ethanol cirrhosis) and heart failure. These findings are all well documented in literature in connection with cases of prolonged or excessive alcohol consumption.
http://emedicine.medscape.com/article/152379-overview#aw2aab6b3

Most of Bermuda's RTFs were single vehicle accidents which took place late at night or in the early hours in the morning. It is important to underscore that RTFs that occurred during the day did not contain any alcohol.

The World Health Organization provides well documented information on the Global Information System on Alcohol and Health monitoring trends on alcohol related harm.
http://www.who.int/gho/alcohol/en/index.html

"This study further highlights the adverse impact of alcohol on, not only individuals and their families, but also on our society and economy," said the Minister of Health and Seniors the Hon. Patricia Gordon-Pamplin JP MP. "The Ministry of Health and Seniors wants Bermuda residents to think twice before getting behind the wheel after drinking; or into a vehicle where the driver has consumed alcohol, especially leading up to and during the holiday season.

"DUI and excessive or frequent alcohol consumption is making a significant adverse impact on families and in communities. The data speaks for itself."

Chief Medical Officer Dr. Cheryl Peek-Ball said she supported the research and the importance of bringing to light the significant role that alcohol plays in Bermuda in sudden death, injury and chronic disease.

“This study allows us to acknowledge the social and health impact of alcohol and provides evidence to challenge the common perception that this legal, socially accepted drug is harmless,” she said. “Consequences of irresponsible or excessive use are clearly very significant and should not be ignored.”

The Department for National Drug Control commented in reaction to this study:

“Alcohol is the most commonly used substance among Bermuda’s residents. Its use and misuse are widely documented in local research among youths, college-age students, and the adult population. For many residents, alcohol has become engrained in the social fabric. The environment in Bermuda is such that alcohol is easily accessible, affordable, and readily available to all residents; even those yet to reach the legal age of consumption (18 years).

“The Bermuda Assessment Referral Center (BARC) has reported that amongst all new clients (n=149) assessed for substance use dependence or abuse in 2012, 73 indicated alcohol as their drug of choice; and of those persons referred for residential treatment services, at both the Men’s and Women’s Treatment Centers, alcohol is usually indicated as the first substance of experimentation with the age of first use being as low as eight years for some clients. In 2012, four men who presented for services said their primary drug of choice was alcohol; whereas, there were no women in treatment who said their primary drug of choice was alcohol during the same time period.

“The Department for National Drug Control advocates for responsible alcohol behaviour and advises that if you do not currently drink alcohol, don’t start. If you do consume alcohol, do so responsibly.”