



## **Alcohol and Women**

### **HCC webinar, December 6<sup>th</sup> 2019**

T. Alafia Samuels  
Honorary Professor,  
Caribbean Institute for Health Research  
UNIVERSITY OF THE WEST INDIES

- Why the concern
- Alcohol use
- Burden of alcohol use
- Particular issues with alcohol and women
- Policy options

# NCD-related mortality in the Caribbean

**53,928**

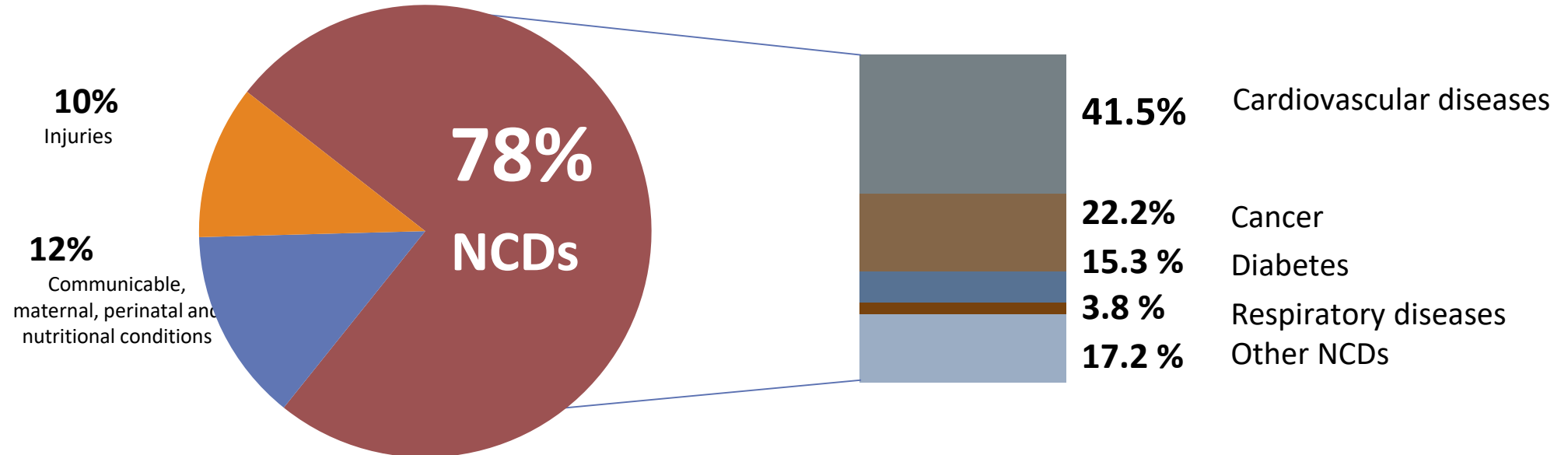
Estimated total deaths

**41,995 (78%)**

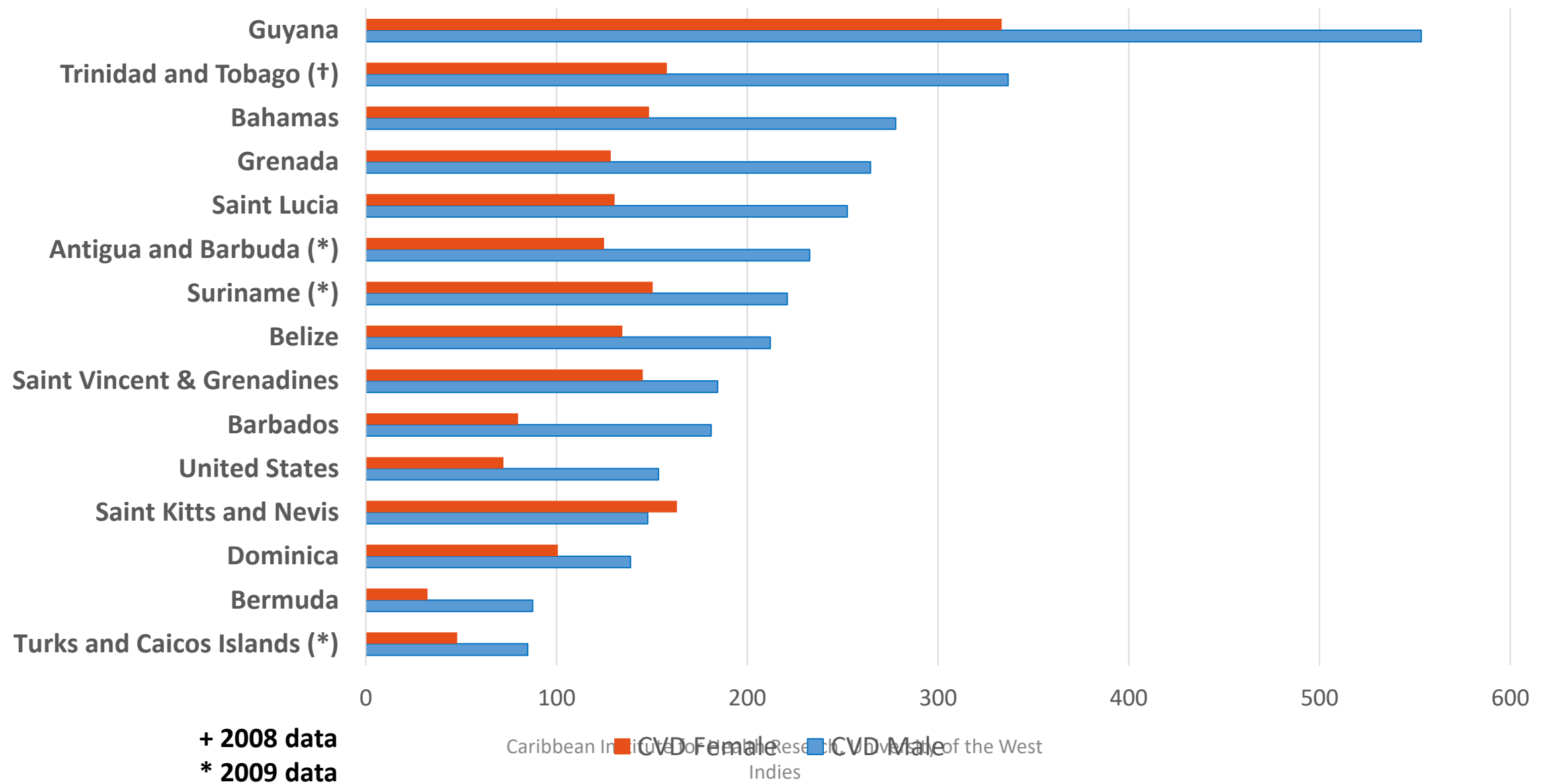
All deaths are caused by NCDs

**38%**

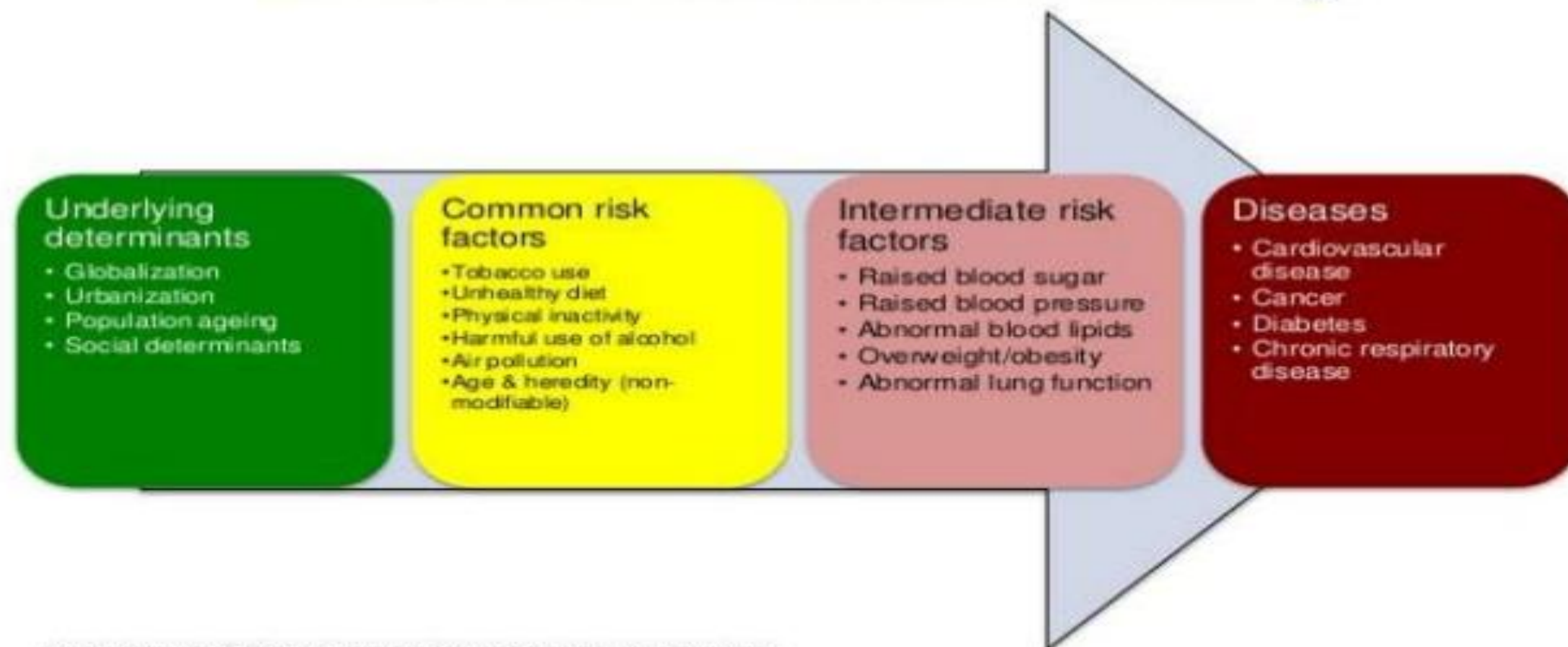
NCD deaths are premature (30-70 years)



# Premature (30–69 years) age-standardized mortality rates from cardio-vascular diseases/ 100,000 popltn in CARICOM 2010 (Source: Ordunez et al)



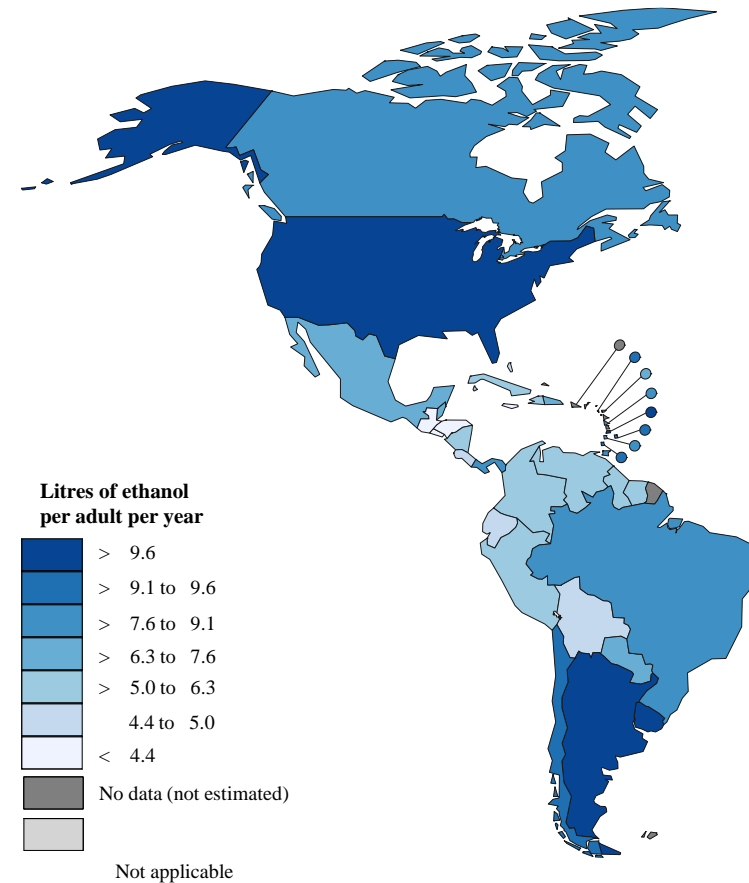
# The NCD Causation Pathway



Adapted from WHO (2005) *Preventing Chronic Disease: a Vital Investment*.

- Why the concern
- Alcohol use
- Burden of alcohol use
- Particular issues with alcohol and women
- Policy options

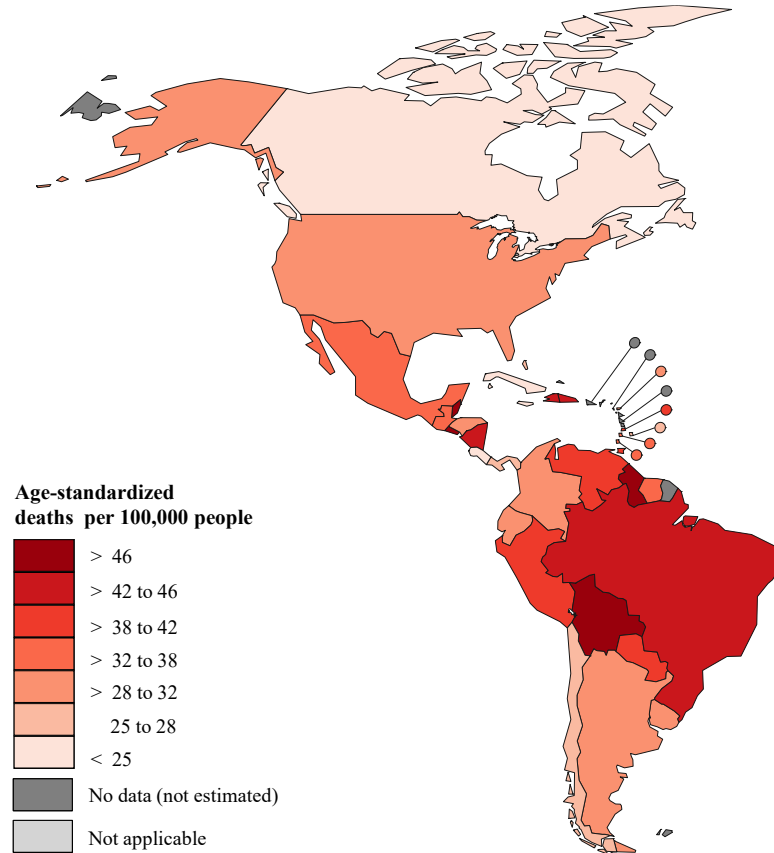
# Alcohol consumption in 2016 in the Americas



Alcohol consumption in the Caribbean countries varies between 6.3->9.6 litres of ethanol per adult per year

# Deaths due to alcohol in 2016 in the Americas

Alcohol is estimated to contribute to 28-46 deaths per 100,000 population in the Caribbean



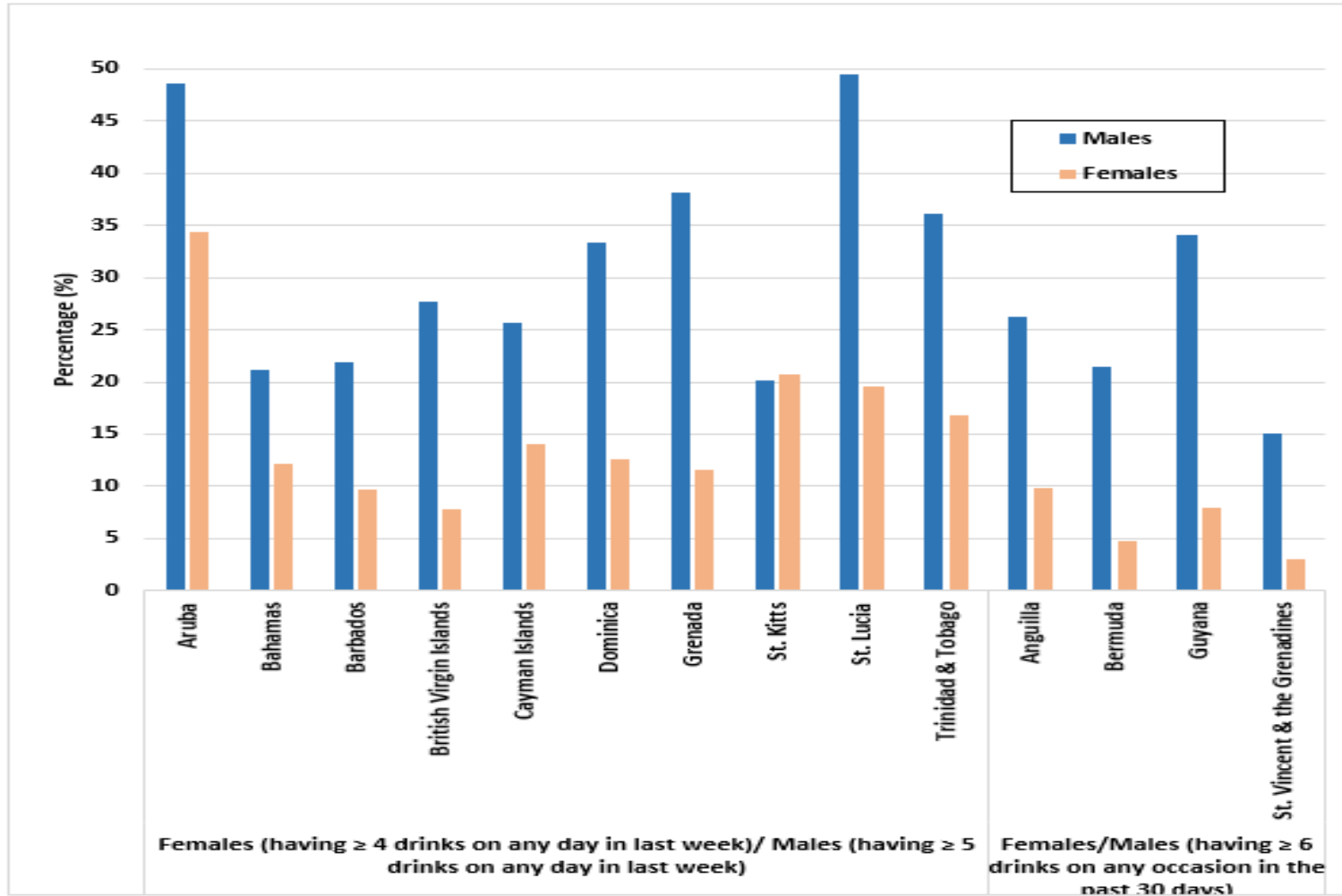
379,400 deaths per year



5.4%  
of all deaths



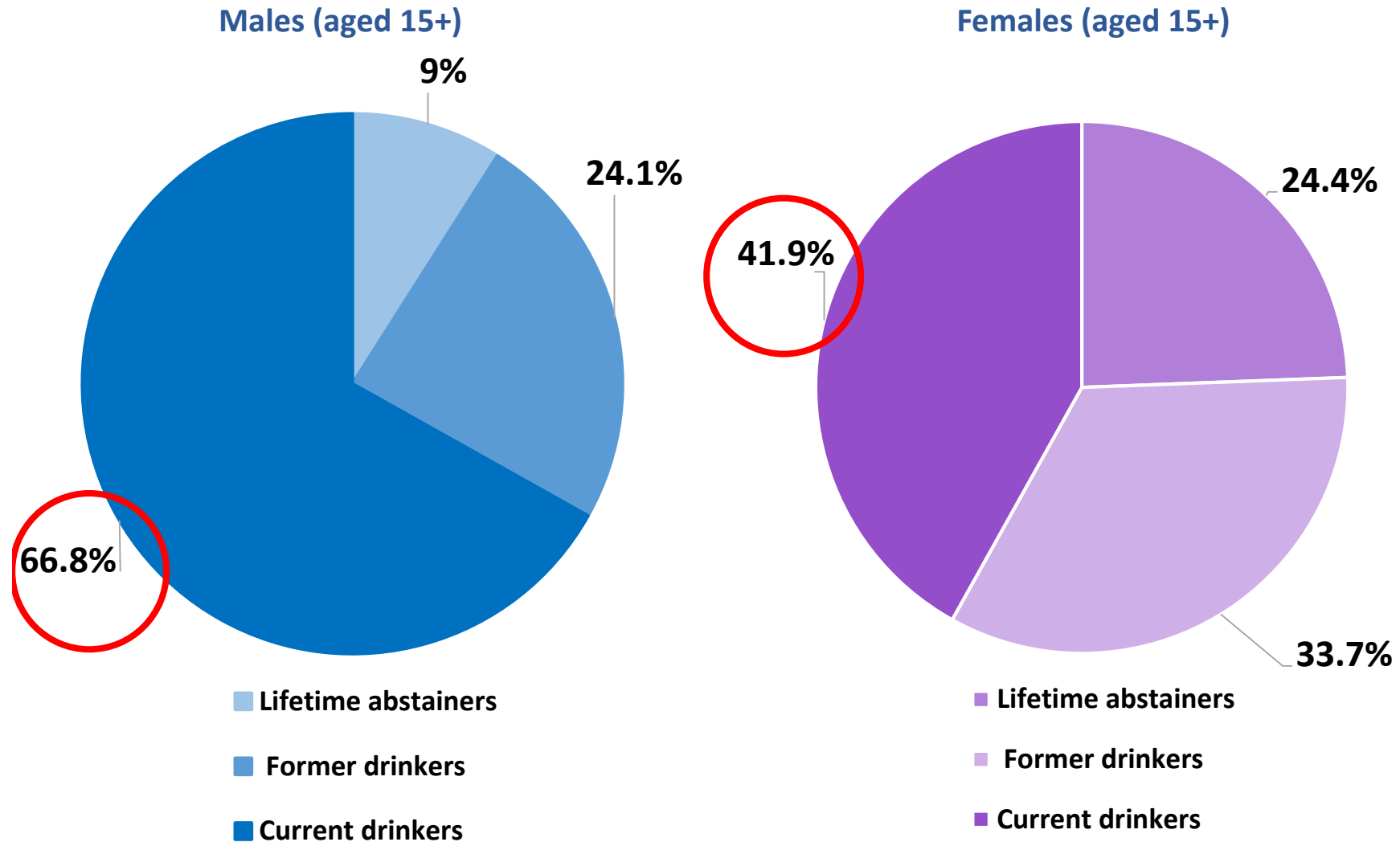
## Harmful Use of Alcohol Among Adults



Source: CARPHA Risk Factor Data Base

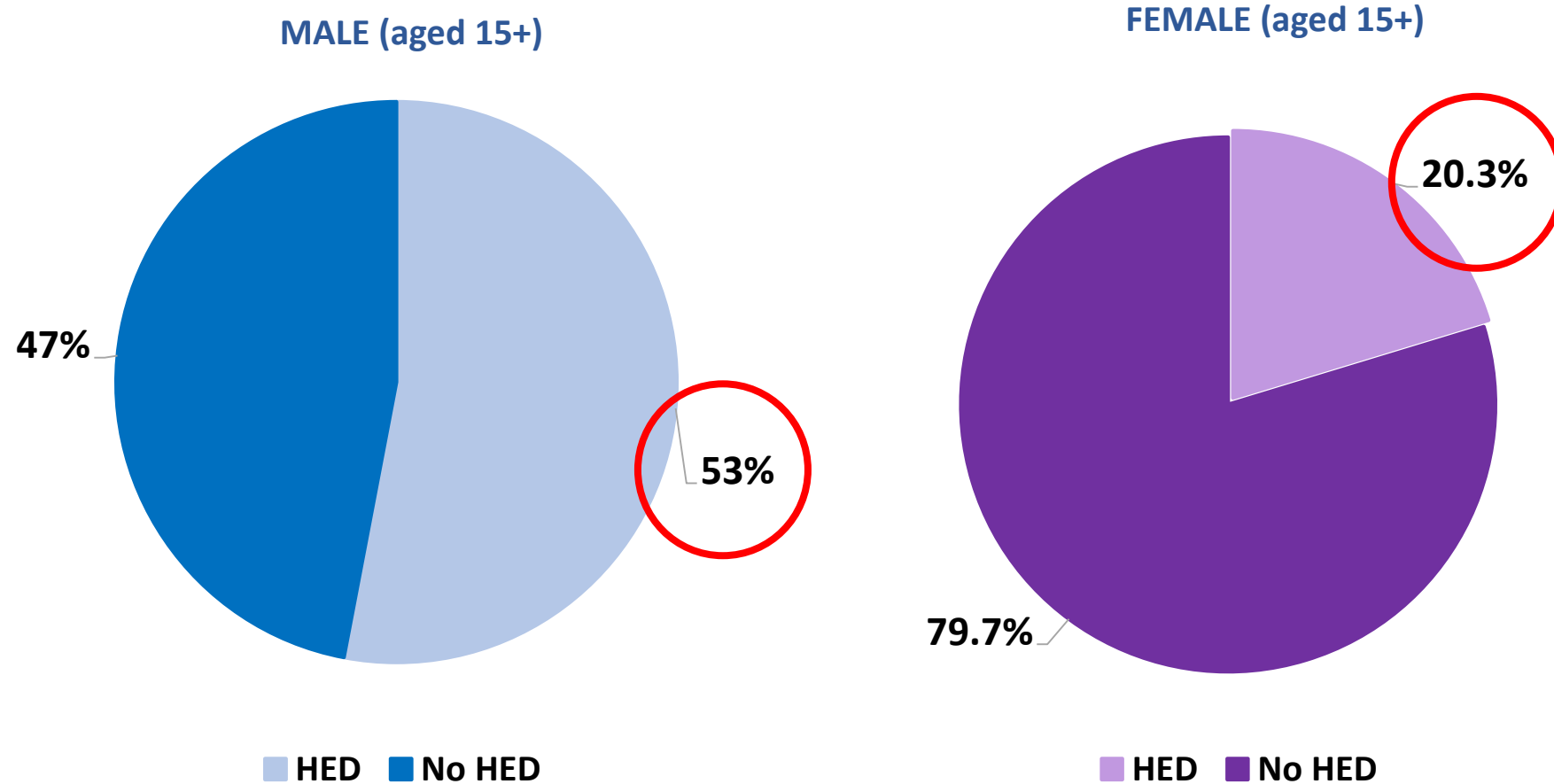
Harmful use of alcohol is common among adults in the Caribbean.  
Excessive alcohol use:  
males (15 - 48%)  
females (3 - 20%)

## LEVELS OF CONSUMPTION (by gender, aged 15+), 2016



Source: WHO Global Status Report on Alcohol and Health, 2018

PREVALENCE OF HEAVY EPISODIC DRINKING (HED) AMONG **DRINKERS** (by gender, aged 15+ years), 2016



Source: WHO Global Status Report on Alcohol and Health, 2018

- Why the concern
- Alcohol use
- Burden of alcohol use
- Particular issues with alcohol and women
- Policy options

# Defining Alcohol Abuse

- Clinically significant impairment in  $\geq 1$  in 12 months:
  - Failure to fulfill major obligations
  - Physically hazardous conditions
  - Legal problems (DUIs, disorderly cond.)
  - Social/Interpersonal problems

# Defining Alcohol Dependence

- Clinically significant impairment in  $\geq 3$  in year:
  - Withdrawal                      - Tolerance
  - Larger amt./longer period than intended
  - Persistent desire/efforts to cut down
  - Excessive time with or obtaining alcohol
  - Activities given up due to alcohol
  - Continued use despite problems

# Alcohol Use Disorder / Alcoholism in women

- Alcoholism is a problem for both men and women.
- But it is a disease that affects women physically, emotionally, and psychologically differently than men.
- Women with alcohol problems are more at risk of heart disease, cancer, liver disorders, loss of personal relationships, abusive relationships, and suicide.
- Women alcoholics tend to drink to escape feelings of loneliness, and because of depression.

- Why the concern
- Alcohol use
- Burden of alcohol use
- Particular issues with alcohol and women
- Policy options



# Effect on the Sexes



Blood alcohol content differ for men and women.

**Female**

## ALCOHOL IMPAIRMENT CHART

APPROXIMATE BLOOD ALCOHOL PERCENTAGE										
Drinks	Body Weight in Pounds									
	90	100	120	140	160	180	200	220	240	
0	.00	.00	.00	.00	.00	.00	.00	.00	.00	ONLY SAFE DRIVING LIMIT
1	.05	.05	.04	.03	.03	.03	.02	.02	.02	Impairment Begins
2	.10	.09	.08	.07	.06	.05	.05	.04	.04	Driving Skills Affected
3	.15	.14	.11	.10	.09	.08	.07	.06	.06	Possible Criminal Penalties
4	.20	.18	.15	.13	.11	.10	.09	.08	.08	Legally Intoxicated — Criminal Penalties
5	.25	.23	.19	.16	.14	.13	.11	.10	.09	
6	.30	.27	.23	.19	.17	.15	.14	.12	.11	
7	.35	.32	.27	.23	.20	.18	.16	.14	.13	
8	.40	.36	.30	.26	.23	.20	.18	.17	.15	
9	.45	.41	.34	.29	.26	.23	.20	.19	.17	
10	.51	.45	.38	.32	.28	.25	.23	.21	.19	

In all states BAC level of 0.08 is illegal

**Male**

## ALCOHOL IMPAIRMENT CHART

APPROXIMATE BLOOD ALCOHOL PERCENTAGE									
Drinks	Body Weight in Pounds								
	100	120	140	160	180	200	220	240	
0	.00	.00	.00	.00	.00	.00	.00	.00	ONLY SAFE DRIVING LIMIT
1	.04	.03	.03	.02	.02	.02	.02	.02	Impairment Begins
2	.08	.06	.05	.05	.04	.04	.03	.03	Driving Skills Affected
3	.11	.09	.08	.07	.06	.06	.05	.05	Possible Criminal Penalties
4	.15	.12	.11	.09	.08	.08	.07	.06	Legally Intoxicated Criminal Penalties
5	.19	.16	.13	.12	.11	.09	.09	.08	
6	.23	.19	.16	.14	.13	.11	.10	.09	
7	.26	.22	.19	.16	.15	.13	.12	.11	
8	.30	.25	.21	.19	.17	.15	.14	.13	
9	.34	.28	.24	.21	.19	.17	.15	.14	
10	.38	.31	.27	.23	.21	.19	.17	.16	



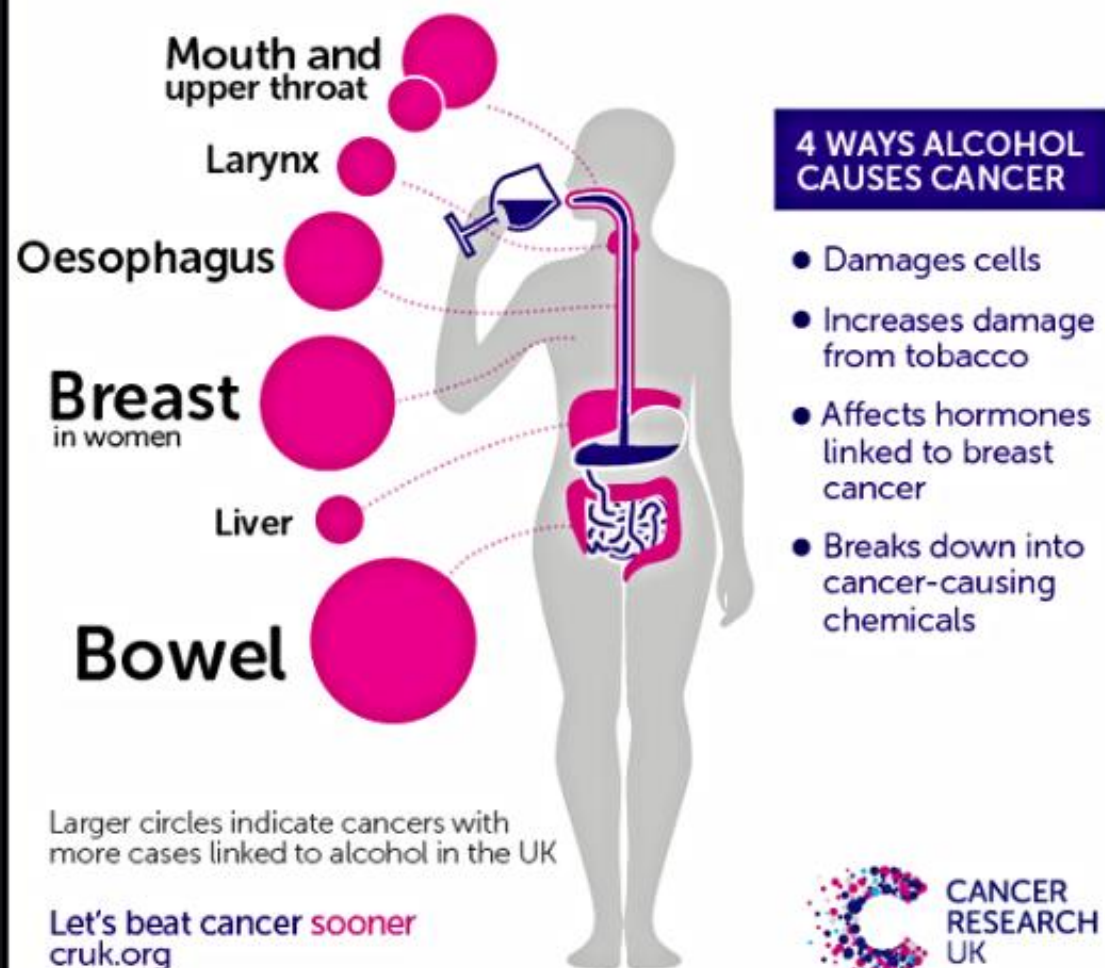
Your body can get rid of one drink per hour.  
Each 1 1/2 oz. of 80 proof liquor, 12 oz. of beer or 5 oz. of table wine = 1 drink.

# Health

- ⑩ Women absorb and metabolize alcohol differently than men.
- ⑩ Alcohol consumption is associated with a linear increase in breast cancer incidence
- ⑩ Women experience greater impairment than men with equivalent doses of alcohol.
- ⑩ Women drink less than men, but are more susceptible to
  - ⑩ Toxic effects of alcohol on the heart muscle.
  - ⑩ Brain shrinkage
  - ⑩ Chronic pancreatitis, alcoholic hepatitis and cirrhosis

# ALCOHOL CAN CAUSE 7 TYPES OF CANCER

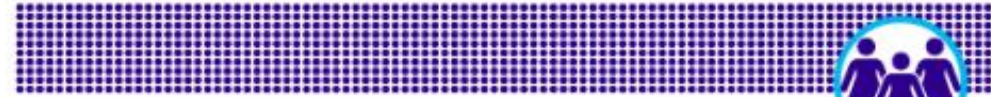
Drinking less alcohol could **prevent 12,800 cancer cases** per year in the UK.





# ALCOHOL AND BREAST CANCER RISK

Of 1,000 women in the UK



who each drink...



No alcohol



116 diagnosed with breast cancer in their lifetime



Up to 3 units a day



5 EXTRA CASES

121 diagnosed with breast cancer in their lifetime



3 to 6 units a day



27 EXTRA CASES

143 diagnosed with breast cancer in their lifetime



More than 6 units a day



70 EXTRA CASES

186 diagnosed with breast cancer in their lifetime

Source: CRUK estimates, May 2017, based on Bagnardi et al 2015 breast cancer risk, CRUK 2012 UK lifetime risk estimates, and Health Survey for England 2015 maximum alcohol units consumed on heaviest drinking day in past week.

LET'S BEAT CANCER **SOONER**  
cruk.org



# ALCOHOL, BREAST CANCER AND MARKETING



Materials from  
[AlcoholJustice.org](http://AlcoholJustice.org)

# Use During Pregnancy

- ⑩ Women who are, or planning to be pregnant, should not drink alcohol.
- ⑩ Alcohol use during pregnancy puts the unborn child at risk of Fetal Alcohol Syndrome or Fetal Alcohol Effects

## Alcohol and oestrogen

- Estrogen causes alcohol to be more quickly absorbed into the bloodstream, but slows down its metabolism from the body
- Alcohol can affect the menstrual cycle and a woman's fertility

# STDs, Rape and Domestic Violence

- STDs and unplanned pregnancy among college students often associated with one or both partners are drinking
- Majority of rape involve either the perpetrator and/or the woman alcohol use.
- Majority of domestic violence, wife battering and child abuse associated with alcohol.
- Alcohol renders a man less capable of suppressing impulses toward violence; women less able to perceive behavioral cues to potential violence and less able to protect themselves from violence in progress.

# Harm to Others from Alcohol

	Individual	Family	Work	Society
Health burden	Morbidity from diseases caused or worsened by AD and associated premature mortality	Injury; stress-related problems for other family members; FASD; interpersonal violence	Injury	Acute care hospitalisations for health problems caused by alcohol; injuries; infectious diseases; FASD
Social burden	Decreases in functionality associated with AD (blackouts, hours of drunkenness); decrease in social role; loss of friendships; stigma	Problems with parental roles, partnership roles, and roles as caregiver in general (e.g., to parents)	Team problems; others having to compensate for lack of productivity	Social costs of alcohol; vandalism
Economic burden	Dependent on society and on SES of person with AD; often cost of alcohol plus cost of possible job loss or absenteeism; possible social drift downwards	Financial problems resulting from health and social consequences of alcohol impacting on family budget and household expenses	Absenteeism and other productivity costs (mainly suboptimal performance when working and disability, short- and long-term); replacement costs in case of premature mortality or long-term disability	Productivity losses; health care costs; costs in the legal sector (police, court, prisons)



# Suicide among alcoholics

- ⑩ One study showed that 40% of alcoholic women attempted to commit suicide, compared to 8.8% of non-alcoholic women,
- ⑩ A study of suicides among females in New Mexico found that 65.5% of the decedents had alcohol or drugs present in their blood at the time of autopsy.

# Victimization

- ⑩ Female victims of intimate violence reported that the offender had been drinking at the time of the offense.

## Criminal Behaviour

- An estimated 4 in 10 women who committed violent acts were perceived as being under the influence of alcohol and/or drugs at the time of the crime.

# Alcohol and aging

- Women experience the damaging effects of chronic alcohol use more severely and usually more rapidly than men.
- Alcohol interferes with several processes of aging. E.g. more extreme changes during menopause;
- Alcohol also increases risk of osteoporosis because it interferes with absorption of calcium, resulting in greater loss of bone density.

# Assessment of Women with AUDs

- Avoid stereotype
  - Stigma, guilt
  - Presentation
- History
  - Routine screening
  - Open vs closed questions
  - Non-judgmental attitudes
  - Problem focused assessment

# Psychosocial Assessment Factors

- Risk
  - Isolation
  - Early initiation
  - Hx of neglect, abuse
  - Tobacco
- Protective
  - Multiple roles
  - Married
  - Student athletes

# Treatment

Women who are alcoholic frequently have a different experience than males

For example:

- Alcoholism in women is generally diagnosed at more advanced stages than in men, delaying the onset of treatment.
  - This probably occurs because women are more discreet about their abusive drinking than men and tend to be more isolated in their drinking.
- Because of employment, economic and family factors, women have less access to treatment than men.

OK, those are the recommended units of alcohol



Bleedin' ell, not much for a night out is it?



Erm... that's the weekly recommendation



- Why the concern
- Alcohol use
- Burden of alcohol use
- Particular issues with alcohol and women
- Policy options



# WHO Recommended Best Buys

- Tax increases – increase price reduces demand
- Restricted access to retailed alcohol
- Bans on alcohol advertising

## ALCOHOL INDUSTRY RECOMMENDATIONS

- Personal responsibility “Drink responsibly”
- More research

Prices of alcohol promoting use

# PROMO 3 buckets

## RM199 ONLY!

### BEER CHOICES

- **HOEGAARDEN** (Normal price : RM260)
- **SOMERSBY** (Normal price : RM240)
- **CORONA** (Normal price : RM240)

\*\*While Stock Last

LITTLE  
BALIY









# Alcohol Research

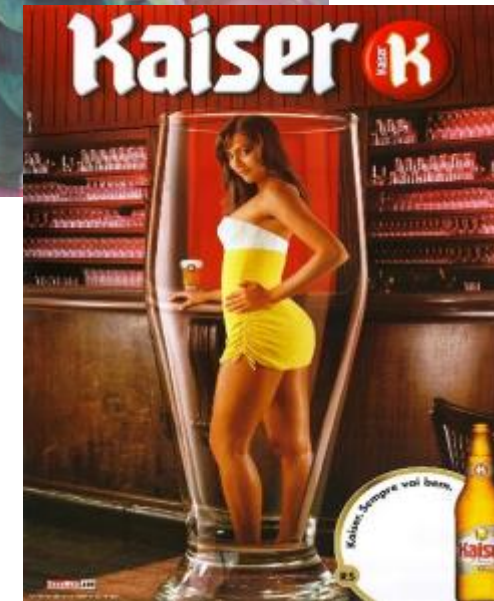
- Most in male subjects (14% women)
- May not consider gender differences
  - Body weight
  - Body fat
  - Alcohol dehydrogenase



# Bans on alcohol advertising



# Examples of alcohol marketing





*Expenditure in  
ADVERTISING in the  
Dominican Republic  
increased from USD  
241 million in 2010 to  
USD 501 million in  
2016*





# Anti-oxidant Beer

**INSTANT ENERGY!** 24 Fresh Ideas to Recharge Your Mind and Body

**fit** **ness**

Special Double Issue Just \$1.50

**BURN MORE CALORIES**  
The New Science Behind A Faster Metabolism

**Slim. Sexy. Confident!**  
Your Fast Track to Tight Abs, Butt and Thighs

**Pizza, Chips, Ice Cream...**  
Our Guilt-Free Shopping List, p. 158

**Stick-With-It Exercise Strategies**

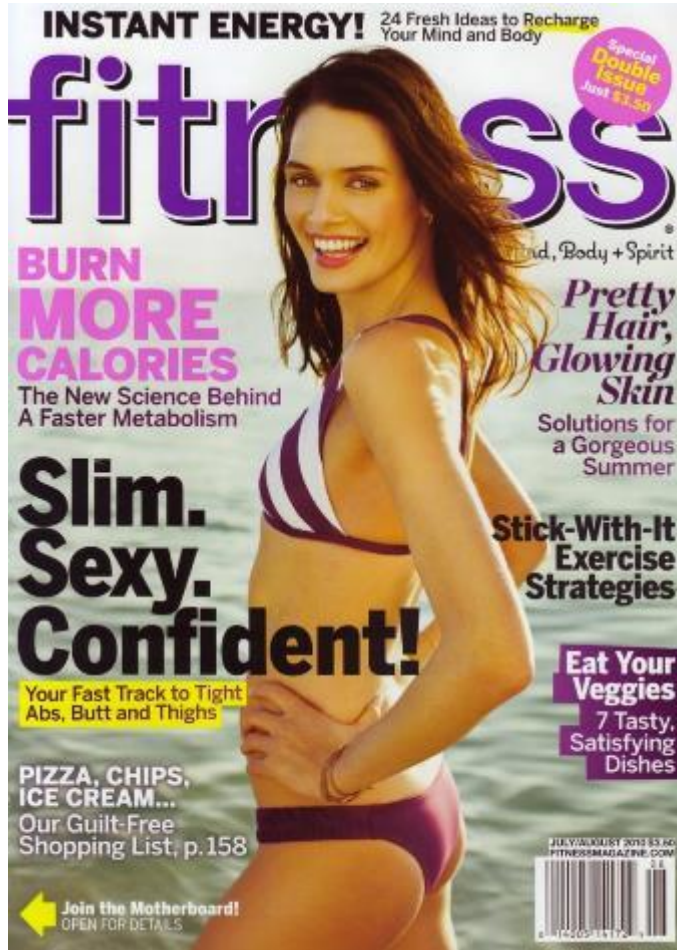
**Eat Your Veggies**  
7 Tasty, Satisfying Dishes

**Pretty Hair, Glowing Skin**  
Solutions for a Gorgeous Summer

mind, Body + Spirit

Join the Motherboard!  
OPEN FOR DETAILS

JULY/AUGUST 2015 \$3.00  
FITNESSMAGAZINE.COM



## Beer With Benefits

What's hot in ale? Tea. Coffee has been used to flavor porters and stouts, and now java's cousin is getting in on the action. Sure, you'll get more bang for your antioxidant buck from fruits and veggies, but, hey, every little bit counts. Wondering what the latest combo of two brews in one tastes like? We chose our top three earls gone wild. —Sarah D'Angelo

### < BluCreek Zen IPA

The India pale ale-green tea mash-up was the fave. "It's refreshing—similar to a traditional IPA," says senior fitness editor Lindsey. (blucreek.com)

### MateVeza Yerba Mate IPA >

Testers enjoyed the fruity flavor of this brew, made with South American yerba maté. Special projects editor Caroline put it simply: "Yummy!" (mateveza.com)

### < Ineeka Organic Green Tea Bier

This ginger-tinged Belgian-style ale tastes more like herbs than hops. "A good option for people who don't love the flavor of beer," says associate beauty editor Ayren. (ineeka.com)

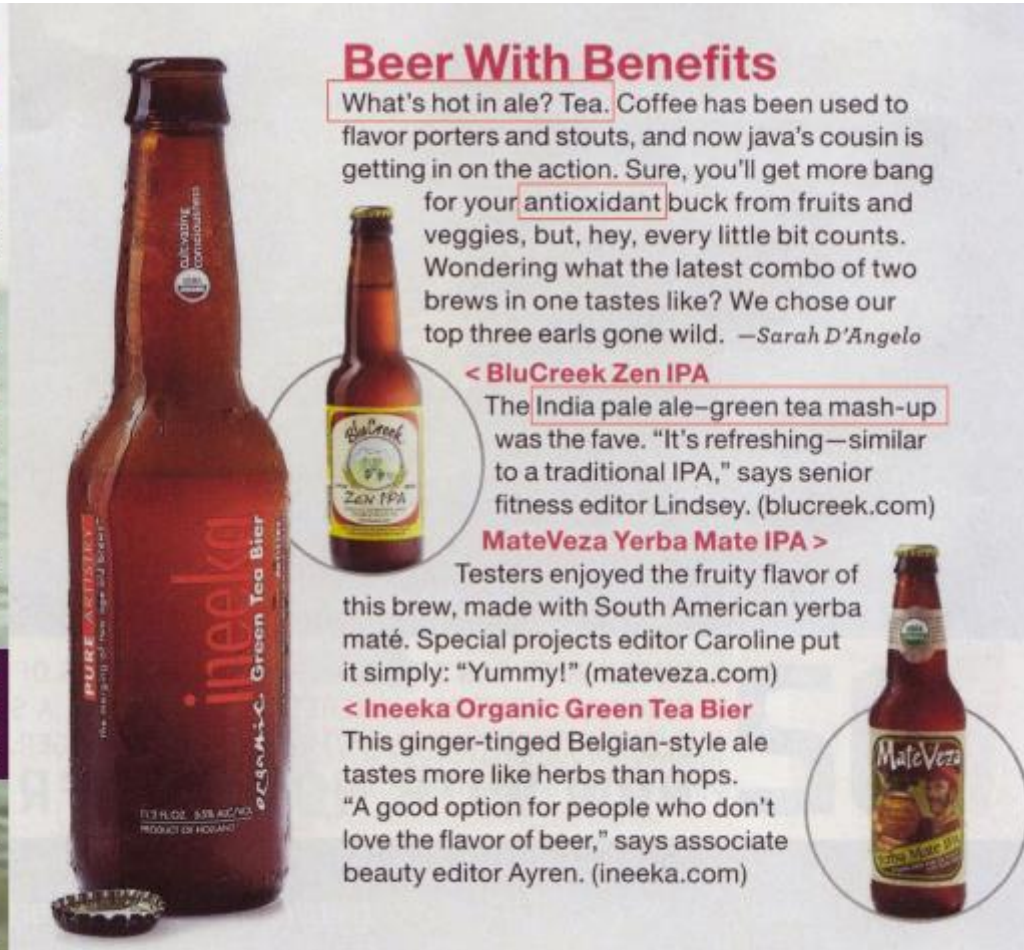


TABLE 3. Prevalence of high exposure to alcohol advertisement, reduced access to retail alcohol and riding in a car driven by someone under the influence of alcohol in the past 30 days, by country and subregion, including 95% confidence intervals [CI] and sample size

Subregion/country	High exposure to alcohol advertisement <sup>a</sup>			Reduced access to retail alcohol <sup>b</sup>			Riding in a car driven by someone under the influence of alcohol <sup>c</sup>		
	%	[95% CI]	<i>n</i>	%	[95% CI]	<i>n</i>	%	[95% CI]	<i>n</i>
Andean									
Bolivia	22.41	[19.62, 25.46]	2,661	—	—	—	—	—	—
Ecuador (Quito)	33.73	[28.38, 39.53]	1,309	53.25	[47.82, 58.60]	298	—	—	—
English-speaking Caribbean									
Anguilla	25.60	N.A.	557	—	—	—	—	—	—
Antigua and Barbuda	29.12	[25.49, 33.03]	1,187	—	—	—	—	—	—
Bahamas	26.76	[21.25, 33.11]	1,051	—	—	—	—	—	—
British Virgin Islands	24.98	N.A.	909	—	—	—	31.64	N.A.	659
Cayman Islands	35.68	N.A.	906	—	—	—	—	—	—
Dominica	25.49	[22.41, 28.83]	995	46.91	[40.67, 53.25]	268	29.08	[24.76, 33.80]	793
Grenada	30.07	[26.18, 34.27]	1,101	—	—	—	—	—	—
Guyana	31.49	[26.65, 36.78]	1,936	41.54	[35.29, 48.07]	497	55.52	[50.97, 59.97]	616
Jamaica	—	—	—	36.26	[30.42, 42.52]	432	—	—	—
Montserrat	27.62	N.A.	146	—	—	—	—	—	—
Saint Kitts and Nevis	—	—	—	—	—	—	24.08	N.A.	941
Saint Lucia	44.62	[39.88, 49.47]	857	—	—	—	—	—	—
Saint Vincent and Grenadines	31.44	[28.23, 34.85]	1,001	—	—	—	—	—	—
Trinidad and Tobago	31.84	[26.89, 37.25]	1,783	—	—	—	35.22	[31.87, 38.73]	1,312

Probst C, Monteiro M, Smith B, Caixeta R, Merrey A, Rehm J. Alcohol Policy Relevant Indicators and Alcohol Use Among Adolescents in Latin America and the Caribbean. J Stud Alcohol Drugs. 2018 Jan;79(1):49-57

“Personal Responsibility”



# Alcohol warning labels

- Experimental study evidence suggests may have an impact if placed on broadcast advertising
- On bottles, can you find it?
- Evidence is that alcohol warnings on bottles influence:
  - Attention or awareness
  - Recall
  - Judgment about danger or perceived risk
- **NO effect on behavior**

**NOT a good example!**



# References

**8th Annual** CAPTASA **Conference** January 25 - 26, 2008; Clinical Applications of the Principles in Treatment of Alcoholism and Substance Abuse

*Confederation of Northwest Addiction Research Centers: Addiction: Mechanisms, Prevention, Treatment, Conjoint 556;*  
Creation of 21st Century Addiction Science Professor Rico Catalano, School of Social Work

Probst C, Monteiro M, Smith B, Caixeta R, Merey A, Rehm J. Alcohol Policy Relevant Indicators and Alcohol Use Among Adolescents in Latin America and the Caribbean. J Stud Alcohol Drugs. 2018 Jan;79(1):49-57.