Alcohol and Women
HCC webinar, December 6th 2019

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• 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)

78%
NCDs

10%
Injuries

12%
Communicable, maternal, perinatal and nutritional conditions

41.5%
Cardiovascular diseases

22.2%
Cancer

15.3%
Diabetes

3.8%
Respiratory diseases

17.2%
Other NCDs
Premature (30–69 years) age-standardized mortality rates from cardio-vascular diseases/100,000 popln in CARICOM 2010 (Source: Ordunez et al)

Caribbean Institute for Health Research, University of the West Indies

Guyana
Trinidad and Tobago (†)
Bahamas
Grenada
Saint Lucia
Antigua and Barbuda (*)
Suriname (*)
Belize
Saint Vincent & Grenadines
Barbados
United States
Saint Kitts and Nevis
Dominica
Bermuda
Turks and Caicos Islands (*)

+ 2008 data
* 2009 data
The NCD Causation Pathway

Underlying determinants:
• Globalization
• Urbanization
• Population ageing
• Social determinants

Common risk factors:
• Tobacco use
• Unhealthy diet
• Physical inactivity
• Harmful use of alcohol
• Air pollution
• Age & heredity (non-modifiable)

Intermediate risk factors:
• Raised blood sugar
• Raised blood pressure
• Abnormal blood lipids
• Overweight/obesity
• Abnormal lung function

Diseases:
• Cardiovascular disease
• Cancer
• Diabetes
• Chronic respiratory disease

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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

Age-standardized deaths per 100,000 people:
- > 46
- > 42 to 46
- > 38 to 42
- > 32 to 38
- > 28 to 32
- 25 to 28
- < 25
- No data (not estimated)
- Not applicable
Harmful use of alcohol is common among adults in the Caribbean.

Excessive alcohol use:
- males (15 - 48%)
- females (3 - 20%)

Source: CARPHA Risk Factor Data Base
LEVELS OF CONSUMPTION (by gender, aged 15+), 2016

Males (aged 15+)

- Lifetime abstainers: 66.8%
- Former drinkers: 24.1%
- Current drinkers: 9%

Females (aged 15+)

- Lifetime abstainers: 33.7%
- Former drinkers: 41.9%
- Current drinkers: 24.4%

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
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Defining Alcohol Abuse

- Clinically significant impairment in ≥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 ≥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
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Effect on the Sexes

Blood alcohol content differ for men and women.

**Female Alcohol Impairment Chart**

<table>
<thead>
<tr>
<th>Drinks</th>
<th>Body Weight in Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>.05 .05 .04 .03 .02</td>
</tr>
<tr>
<td>100</td>
<td>.10 .09 .10 .09 .08</td>
</tr>
<tr>
<td>120</td>
<td>.15 .14 .13 .12 .11</td>
</tr>
<tr>
<td>140</td>
<td>.20 .19 .18 .17 .16</td>
</tr>
<tr>
<td>160</td>
<td>.25 .24 .23 .22 .21</td>
</tr>
<tr>
<td>180</td>
<td>.30 .29 .28 .27 .26</td>
</tr>
<tr>
<td>200</td>
<td>.35 .34 .33 .32 .31</td>
</tr>
<tr>
<td>220</td>
<td>.40 .39 .38 .37 .36</td>
</tr>
<tr>
<td>240</td>
<td>.45 .44 .43 .42 .41</td>
</tr>
</tbody>
</table>

**Male Alcohol Impairment Chart**

<table>
<thead>
<tr>
<th>Drinks</th>
<th>Body Weight in Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>.04 .03 .02 .01 .0 .0</td>
</tr>
<tr>
<td>120</td>
<td>.08 .06 .05 .04 .03</td>
</tr>
<tr>
<td>140</td>
<td>.11 .09 .08 .07 .06</td>
</tr>
<tr>
<td>160</td>
<td>.15 .13 .12 .10 .09</td>
</tr>
<tr>
<td>180</td>
<td>.20 .18 .16 .14 .13</td>
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<td>240</td>
<td>.35 .33 .31 .29 .28</td>
</tr>
</tbody>
</table>

In all states BAC level of 0.08 is illegal.

Only safe driving limit:

- Impairment Begins
- Driving Skills Affected
- Possible Criminal Penalties

Legally intoxicated:

- 12 oz of beer
- 1.1 oz of 80 proof liquor
- 5 oz of table wine

Your body can get rid of one drink per hour.

Each 1.1 oz of 80 liquor, 12 oz of beer or 5 oz of table wine = 1 drink.
Health

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

- Mouth and upper throat
- Larynx
- Oesophagus
- Breast in women
- Liver
- Bowel

Larger circles indicate cancers with more cases linked to alcohol in the UK.

Let’s beat cancer sooner

cr.uk.org

4 WAYS ALCOHOL CAUSES CANCER

- Damages cells
- Increases damage from tobacco
- Affects hormones linked to breast cancer
- Breaks down into cancer-causing chemicals

CANCER RESEARCH 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
  - 5 EXTRA CASES
- Up to 3 units a day: 121 diagnosed with breast cancer in their lifetime
  - 27 EXTRA CASES
- 3 to 6 units a day: 143 diagnosed with breast cancer in their lifetime
  - 70 EXTRA CASES
- More than 6 units a day: 186 diagnosed with breast cancer in their lifetime

Source: CRUK estimates, May 2017, based on Dagnall et al 2015 breast cancer risk,
CRUK 2012/13 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

cr.uk.org
ALCOHOL, BREAST CANCER AND MARKETING

Materials from 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

<table>
<thead>
<tr>
<th>Health burden</th>
<th>Individual</th>
<th>Family</th>
<th>Work</th>
<th>Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morbidity from diseases caused or worsened by AD and associated premature mortality</td>
<td>Injury; stress-related problems for other family members; FASD; interpersonal violence</td>
<td>Injury</td>
<td>Acute care hospitalisations for health problems caused by alcohol; injuries; infectious diseases; FASD</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social burden</th>
<th>Individual</th>
<th>Family</th>
<th>Work</th>
<th>Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreases in functionality associated with AD (blackouts, hours of drunkenness); decrease in social role; loss of friendships; stigma</td>
<td>Problems with parental roles, partnership roles, and roles as caregiver in general (e.g., to parents)</td>
<td>Team problems; others having to compensate for lack of productivity</td>
<td>Social costs of alcohol; vandalism</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic burden</th>
<th>Individual</th>
<th>Family</th>
<th>Work</th>
<th>Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>Financial problems resulting from health and social consequences of alcohol impacting on family budget and household expenses</td>
<td>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</td>
<td>Productivity losses; health care costs; costs in the legal sector (police, court, prisons)</td>
<td></td>
</tr>
</tbody>
</table>
Suicide among alcoholics

One study showed that 40% of alcoholic women attempted to commit suicide, compared to 8.8% of non-alcoholic women,

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

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
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• 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
RM1999 ONLY!

BEER CHOICES
- HOEGAARDEN (Normal price : RM260)
- SOMERSBY (Normal price : RM240)
- CORONA (Normal price : RM240)

**While Stock Last
50% Off all alcohol
Monday to Friday
5pm - 7pm
Bears, Wine, Spirits, Cocktails
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
<table>
<thead>
<tr>
<th>Subregion/country</th>
<th>High exposure to alcohol advertisement&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Reduced access to retail alcohol&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Riding in a car driven by someone under the influence of alcohol&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% [95% CI] n</td>
<td>% [95% CI] n</td>
<td>% [95% CI] n</td>
</tr>
<tr>
<td><strong>Andean</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>22.41 [19.62, 25.46] 2,661</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ecuador (Quito)</td>
<td>33.73 [28.38, 39.53] 1,309</td>
<td>53.25 [47.82, 58.60] 298</td>
<td>--</td>
</tr>
<tr>
<td><strong>English-speaking Caribbean</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anguilla</td>
<td>25.60 N.A. 557</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Antigua and Barbuda</td>
<td>29.12 [25.49, 33.03] 1,187</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Bahamas</td>
<td>26.76 [21.25, 33.11] 1,051</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>British Virgin Islands</td>
<td>24.98 N.A. 909</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>35.68 N.A. 906</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Grenada</td>
<td>30.07 [26.18, 34.27] 1,101</td>
<td>41.54 [35.29, 48.07] 497</td>
<td>55.52 [50.97, 59.97] 616</td>
</tr>
<tr>
<td>Guyana</td>
<td>31.49 [26.65, 36.78] 1,936</td>
<td>36.26 [30.42, 42.52] 432</td>
<td>--</td>
</tr>
<tr>
<td>Jamaica</td>
<td>--</td>
<td>24.08 N.A. 941</td>
<td></td>
</tr>
<tr>
<td>Montserrat</td>
<td>27.62 N.A. 146</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Saint Kitts and Nevis</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Saint Lucia</td>
<td>44.62 [39.88, 49.47] 857</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Saint Vincent and Grenadines</td>
<td>31.44 [28.23, 34.85] 1,001</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>31.84 [26.89, 37.25] 1,783</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>
“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

Source: Argo et al., JPP&M 2004; 23: 193-208

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