Alcohol and Cancer in the United States:
Examining the Past - Changing the Future

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As required by the Alcohol Policy 18 Conference, I/we have signed a disclosure statement and note the following conflict(s) of interest:

No conflicts of interest
Alcohol by the Numbers

12-14% of adults in U.S. have current alcohol use disorder and 29% have had a disorder at sometime in their lives (Edelman & Fiellen, 2016)

70% of Americans do not think drinking alcohol is associated with cancer (ASCO, 2017)

5-6% of all new cases of cancer and deaths are directly associated with alcohol (ASCO, 2017)
Alcohol

4-6% of all new cases of cancer and deaths in the Americas are associated with alcohol
121,201 new cancer cases
53,060 cancer deaths (Praud, Rota, Shield, 2016)

1/3 of all second malignancies associated with continued tobacco +/- or alcohol
Tobacco use may be associated with excessive alcohol intake – increased risk of esophageal, pancreatic and oropharynx cancers
Why does alcohol cause cancer?

Alcohol (ethanol) is metabolized to acetaldehyde and acetate

- Oxidation of ethanol
- Genotoxic effects of acetaldehyde (known carcinogen)
- Production of reactive oxygen species
- Changes in folate metabolism
- Increased estrogen and androgen production
- Solvent for tobacco metabolites
- Genetic metabolism

(IARC Monograph, 2010)
Alcohol and Cancer Risk

Adapted from the American Association for Cancer Research Cancer Progress Report 2014

www.ons.org
Main Cancers Associated with Alcohol

Oropharynx *
Esophagus (SCC only)
Colon
Rectum
Liver
Gallbladder
Pancreas
Larynx *
Female breast *

* Association with tobacco use

Bagnardi, Rota, Botteri et al. (2015)
## Relative Risks from a Meta-analysis on the Associations Between Alcohol Drinking and Risk of Cancer

<table>
<thead>
<tr>
<th>Type of Cancer</th>
<th>Nondrinker</th>
<th>Light Drinker</th>
<th>Moderate Drinker</th>
<th>Heavy Drinker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oropharynx</td>
<td>1.0</td>
<td>1.13</td>
<td>1.83</td>
<td>5.13</td>
</tr>
<tr>
<td>Esophageal SCC</td>
<td>1.0</td>
<td>1.26</td>
<td>2.23</td>
<td>4.95</td>
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<tr>
<td>Larynx</td>
<td>1.0</td>
<td>0.87</td>
<td>1.44</td>
<td>2.65</td>
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<tr>
<td>Liver</td>
<td>1.0</td>
<td>1.0</td>
<td>1.08</td>
<td>2.07</td>
</tr>
<tr>
<td>Female breast</td>
<td>1.0</td>
<td>1.04</td>
<td>1.23</td>
<td>1.61</td>
</tr>
<tr>
<td>Colorectum</td>
<td>1.0</td>
<td>0.99</td>
<td>1.17</td>
<td>1.44</td>
</tr>
</tbody>
</table>

Adapted from results of Bagnardi et al (2015)
Years of Potential Life Lost (YPLL)

17.0 - 19.1 YPLL for each death

Alcohol-attributable cancer deaths
Women: 56-66% from breast cancer
Men: 53-71% from upper airway and esophageal cancers

(Nelson, Jarman, Rehm et al., 2013)

19,500 alcohol-related cancer deaths – more than melanoma or ovarian cancer in the U.S.

(Nelson, Jarman, Rehm et al., 2013)
How much is a drink?

National Institute for Alcohol Use and Alcoholism (NIAAA) defines a standard drink as containing 14g pure alcohol

1.5 ounces distilled spirits (40% alcohol by volume)
5 ounces wine (12% alcohol by volume)
12 ounces regular beer (5-13% by volume)
Moderate Drinking

1 drink / day – women
2 drinks / day - men

U.S. Guidelines
American Cancer Society (ACS)
American Heart Association (AHA)
Center for Disease Control (CDC)
National Institute for Alcohol Use and Alcoholism (NIAAA)
Excessive/Binge Drinking

4 or more drinks on a single occasion or 8 or more drinks/week – Women

5 or more drinks on a single occasion or 15 or more drinks/week – Men
Alcohol and Youth

National Institute for Alcohol Use and Alcoholism (NIAAA)

9% of 18+ population exceed weekly limits

25% of people age 18-24 exceed both daily and weekly limits

Binge drinking has increased over the last decade

(Hingson, Zha, White, 2017)
Disparities in Alcohol Use in the U.S.  
Black, Hispanics and Asian Americans have lower rates of current alcohol use than whites  
Rates of abuse increasing in men, women, young Black and Hispanics  
Alcohol abuse is particularly high in American Indian and Alaska Native (AIAN) populations  
Patterns differ by sex and sexual orientation with higher rates in minority and younger populations.  
(Griggs, Maingi, Blinder et al., 2017)
Alcohol and Tobacco

33% of all cancers are caused by tobacco use
1/3 of all second malignancies associated with continued tobacco +/or alcohol
Increased risk of esophageal, pancreatic and oropharynx cancers

GOALS
Avoid all alcohol intake for esophageal, head and neck, kidney and liver cancers
Limit alcohol intake to one drink per day for women and two glasses per day for men (NCCN, v3.2017)
Avoid all tobacco products and/or encourage smoking cessation
Assess for > 30 year pack per day exposure (or quit within last 15 years) - recommend chest CT screening if eligible

www.ons.org
What if Lightening Strikes Twice?

Alcohol and cancer survivors

Increase in breast cancer mortality in heavy drinkers

Increase in risk of recurrence (17%) and overall mortality (8%)

Risk of cancer specific mortality is increased in moderate (1.79) and heavy drinkers (3.63)

(Schweldhelm, Boeing, Hoffman, et al., 2016)
Alcohol and Mixed Messages

Complicates recommendations from HCPs

Low healthcare provider (HCP) knowledge about the alcohol and cancer risk

Different approaches to patient counseling especially if the HCP drink alcohol

Better cardiovascular health?
Conclusions

Controlling alcohol and reducing cancer risk
Increase targeted education – culturally sensitive, age appropriate
Risk assessment/targeted screening of those at risk for cancer recurrence or relapse
Public awareness campaigns
Public policies – store hours, outlet density, advertising to youth, pricing and taxation

GOALS
Promote healthy behaviors
Collaborate with primary care providers
Advocate for policies on alcohol control
Incorporate alcohol control strategies into cancer control plans
References


www.ons.org
Other Resources


American Heart Association (2015). Alcohol and Heart Health. http://www.heart.org/HEARTORG/HealthyLiving/HealthyEating/Nutrition/Alcohol-and-Heart-Health_UCM_305173_Article.jsp#.WsOHfCMrLjA


ALCOHOL: NOT ALL RAINBOWS.
Getting the message out to the grass roots through health systems, the role of cancer nurses in Europe

April 2018

Lena Sharp, RN, Ph D

President, European Oncology Nursing Society (EONS)
Head of Regional Cancer Centre, Stockholm-Gotland, Sweden
As required by the Alcohol Policy 18 Conference, I/we have signed a disclosure statement and note the following conflict(s) of interest:

None
EONS

- National societies from 32 European countries
- Working groups
  - Communication
  - Advocacy
  - Research
  - Education

www.cancernurse.eu
Impact of cancer nursing

- The largest group
- Trusted profession
- Central role in cancer care
- Work closely with patients and their families
- Prevention, screening, early detection, diagnosis, treatment, rehabilitation, follow-up, palliative care end of life care

Tasks and responsibilities
- Education
- Assessment
- Self care
- Supportive care
- Psychosocial care
- Symptom control
- Lifestyle changes
Value and impact of cancer nursing

• Not always recognised
• The RECaN project
• 1st systematic review with focus on impact of cancer nursing on patients’ experiences and outcomes (351 papers)
• Nursing contribution to cancer care and cancer research is significant and varied
• Nurses are producing high quality, innovative and cutting edge research in cancer care
• Nurse--led interventions increasing in frequency and complexity

Campell et al 2017; Charalambous et al 2018
EONS Cancer Nursing Education Framework 2018
Cancer prevention

• 30-50% cancer cases could be prevented!  
  ASCO 2018

• The most cost-effective way to reduce the cancer burden  
  WHO

• Interventions will reduce the cancer incidence and also other major health issues

• Many inexpensive interventions are still not implemented in many countries
Cancer and alcohol

• Important cancer risk factor
  • Oral cavity, pharynx, larynx, esophagus, liver, breast, colorectal, pancreatic cancer
• Smoking and drinking = increased risk!
• Interventions can impact both primary and secondary prevention
• Cancer as a ‘teachable moment’
• Impact of socioeconomic factors
• Cancer nurses have a unique position to intervene!

Alcohol and Cancer Risks.
A guide for health Professionals. www.Shaap.org.uk
Cancer and alcohol

- 5-7% of cancers attributed to alcohol
- Risk increases with level of intake
- Reduction of intake reduce the risk
- Some evidence of increased risk of side effects and poor treatment outcome
- High alcohol consumption in many European countries
- Some resistance among health care providers
  - Same issues earlier regarding tobacco and physical activities
- We need to raise awareness!
Nurses role in primary cancer prevention

- Public campaigns
- Community work
- Primary care
- Schools
- Screening programs
Primary cancer prevention
One example...
Pilot project in the Stockholm area

• AIM: To raise awareness on cancer and risk reduction
• The ‘Botkyrka project’
  • Multicultural community
  • 90,000 citizens, 160 languages, low income and education levels, high unemployment rates, poor attendance cancer screening
• Project led by a cancer survivor
• EU Code Against Cancer, all cancer risk factors including alcohol
• Collaboration with the local municipality
• Information campaigns, events, education programs
Peer advisors, key factor to success!

• 50 volunteers
• 16-63 years old, living in the area
• Rapper and song-writer Dogge Doggelito

Education
  • Cancer and treatment
  • Risk factors, screening, early detection
  • Behavior change
  • Patients rights

• Reached out to the community

• Schools, churches, health care services, market places, metro stations, cultural centers...
Peer advisors, key factor to success!

We have knowledge, so people listens to us!

We speak their language and are familiar with their culture!

The business card opens all doors!
Pilot project in the Stockholm area, results

• Increased awareness and attending in cancer screening
• Incredible engagement from the community
• Peer learning = effective method to reach out
• Employments
• Model adjusted and implemented in the whole Stockholm region
• 1st Equality Award by the Stockholm County Council
• Certified by UNESCO
Media attention on local, regional and international level

Getting cancer information to those who need it most

Associations between levels of education, socioeconomic factors and cancer are well-documented.

Stockholm is no exception - the data show important disparities across the city in the rates of new cancer, rates of survival and attendance levels at screening.

At Stockholm’s Regional Cancer Centre, we are trying to find the best way to help communities most at risk to take action to protect themselves. We’ve started by focusing on a community with the lowest mean income and educational level in the region – the youth Stockholm suburban of Bromma, which hosts a large number of

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Nurses role in secondary cancer prevention

• Close contact with cancer patients and their loved ones during the cancer journey
• Information and education related to cancer treatment
• Administration and monitoring of cancer treatment
• Symptom management, psychosocial support, rehabilitation
• Nurse-led follow-up
• Unique position to intervene!
  • Patients
  • Families
  • Staff
Secondary cancer prevention
One example...
Swedish cancer contact nurses

- Supportive care resource regulated by the National Cancer Strategy
- Main point of contact for most cancer patients and their families
- Work closely with the cancer care team
- Patient-reported data shows positive results

*Westman, Sharp et al 2017, Bjuresäter et al 2017*
Secondary prevention program

• National recommendation of cancer and lifestyle initiated and developed by the Swedish Cancer Nursing Society
• National education program for cancer contact nurses
• Education material based on national guidelines
• Systematic assessment on risk factors
• Intervene and follow-up on all known risk-factors
• Full day education with follow up
  • Tobacco, Alcohol, Diet, Physical activity, Sun tanning
  • Assessment, models for behavior change
• Evaluation
Alcohol Brief Intervention (ABI)

- Challenge attitudes and behaviors
- Based on Motivational Interviewing (MI)
- Assessment of drinking behaviors and feedback
- Negotiation and agreement of goal for reducing alcohol use
- Assisting behavior change
- Self-help materials
- Follow-up telephone support and further visits
Summary

• Alcohol is a risk factor for many types of cancer
• More focus is needed!
• Intervene on all cancer risk factors including alcohol
• Integrated approach!
• Innovated and systematic interventions needs to be further developed and implemented
• Cancer nurses have a key role in primary and secondary cancer prevention!
EUROPEAN CANCER NURSING DAY
We are recognising the Importance of Cancer Nursing!
Are you?
Thank you!

@sharp_lena

lena.sharp@sll.se
C-14 ADVOCATING FOR HEALTHY COMMUNITIES:

Public and Policy Action for alcohol control: Promoting the European Code Against Cancer and why we need better labelling on alcoholic beverages

Alcohol Policy conference 18
12.04.2018 Washington DC, USA
As required by the Alcohol Policy 18 Conference, I have signed a disclosure statement and note the following conflict(s) of interest:

European Alcohol Policy Alliance

2016 – Received €16,000 from Alcohol monopolies in Sweden and Finland in support for “European Report on Alcohol Policy - a review 2016”

2010 – 2018 Support from European Commission as co-funding for European Alcohol Policy Conference 2010 and 2014, Operating grant 2010 – 2014 and as partner in EU funded projects

2015-2017 Support from Scottish Government

2018 Support from Estonian government for production of background documents for Estonian Presidency conference on alcohol.
The **European Alcohol Policy Alliance** was formed in 1990 with 9 member organisations.

Today:

- 59 members
- 24 countries
- Secretariat in Brussels
Raising awareness among decision makers of the harms caused by alcohol (social, health and economic burden) ensuring that these are taken into consideration in all relevant EU policy discussions.

Promoting the development and implementation of evidence-based policies aimed at effectively preventing and reducing this burden.
Total average alcohol per capita consumption (projected), recorded and unrecorded, 2016 (WHO 2016)
Alcohol Policy Strategies in Europe

An EU strategy to support Member States in reducing alcohol related harm

- Protect young people, children and the unborn child
- Reduce injuries and deaths from alcohol-related road traffic accidents
- Prevent alcohol-related harm among adults and reduce the negative impact on the workplace
- Inform, educate and raise awareness on the impact of harmful and hazardous alcohol consumption, and on appropriate consumption patterns
- Develop, support and maintain a common evidence base
European Dimension in alcohol policy

Cross border issues:

- marketing – Refit AVMSD (201/2017)
- price – Tax, excise duties and Minimum Unit Price
- information to consumers – report (2014?)
- drink driving – (drivers cross borders)
- monitoring and research – update WHO Global database
Alcohol-attributable mortality in Europe Comparing 1990 vs 2014

Cancer account for 12% of the alcohol attributable deaths

Alcohol-attributable cancer mortality in WHO European region 2015
If you drink alcohol of any type, limit your intake.
Not drinking alcohol is better for cancer prevention.

There is strong evidence that people can reduce their risk of cancer by adopting healthy dietary and activity behaviours. In European populations, people who follow a healthy lifestyle that adheres to the recommendations for cancer prevention have an estimated 18% lower risk of cancer compared with people whose lifestyle and body weight do not meet the recommendations. This risk reduction was estimated for a healthy lifestyle that includes: being a normal body weight (a body mass index [BMI] between 18.5 and 24.9 kg/m²) and avoiding foods that promote weight gain, such as sugary drinks and fast foods; being moderately active for at least 30 minutes per day; breastfeeding (for women); eating mostly foods of plant origin; limiting intake of red meat; avoiding processed meats; and limiting consumption of alcoholic drinks.

- Is drinking alcohol a cause of cancer?
- Apart from cancer, is alcohol consumption a cause of disease?
- Do all types of alcoholic drinks increase the risk of cancer?
- Why does drinking alcohol cause cancer?
- What if I drink alcohol and smoke tobacco?
- Can I reduce my risk of cancer if I stop drinking alcohol?
- What is worse, episodic heavy drinking or moderate drinking every day?
- Is drinking small amounts of alcohol good for my heart?
- How much is a standard drink?
- How much can I reduce my risk of cancer by limiting my alcohol intake?
Experts have known since 1987 that alcohol can cause cancer, but the connection between the two is often unknown, or ignored. Research in Europe has shown that 1 in 10 Europeans do not know about the connection, and that 1 in 5 do not believe that there is a connection between cancer and the drinks that millions of us enjoy every week.

We hope that this website will raise awareness about the dangers of alcohol and be a resourceful hub for everyone who wants to do the best they can to protect themselves and their families from cancer.

“People have the right to know about all of the dangers of alcohol. Many people are unaware that alcohol can cause seven different types of cancer, and that needs to change. Policies on alcohol pricing, labelling, marketing and advertising must reflect the fact that alcohol can be extremely harmful to health.”

Member of the European Parliament, Glenis Willmott
Alcohol Awareness Week

Every year, third week of November, [http://www.awarh.eu/](http://www.awarh.eu/)

**Partners:**

European Association for the Study of the liver (EASL)

European Brain Council (EBC)

European Patients Liver Association (ELPA)

European Federation of Associations of Families of People with Mental Illness (EUFAMI)

European federation of Addiction Societies (EUFAS)

United European Gastroenterology (UEG)
5\textsuperscript{th} Alcohol Awareness Week 20 – 24 November 2017

2017 Theme is \textbf{alcohol and cancer}

• Twitter campaign – Thunderclap

• Event in the European Parliament on the 23 November

• Breakfast meeting with health Attaches 24 November hosted by Estonia
“Alcohol and Cancer”

Lunch Debate
Hosted by Biljana Borzan MEP

23rd November 2017
12:00 – 14:30 CET
European Parliament, Brussels

With the support of
An Awareness campaign about alcohol and cancer

23rd November 2017
Anne Friis Krarup and Dorte Dahl

TrygFonden Danish Cancer Society
CONCLUSION

DEMONSTRATED LINK ALCOHOL and DIGESTIVE CANCERS

ALCOHOL IS RESPONSIBLE FOR 79,000 CASES of DIGESTIVE CANCERS / YEAR in EUROPE

ALL ORGANS ARE CONCERNED

PHYSIOPATHOLOGY IS WELL KNOWN EVEN for a MODERATE NUMBER OF DRINKS PER DAY

CHANGES to REGULATIONS AND CULTURAL HABITS CAN INDUCE INCIDENCE OF DIGESTIVE CANCERS (France, UK)

FIRST STEP: INFORMATION
9 in 10 PEOPLE ARE UNAWARE that ALCOHOL increases the RISK OF CANCER
Provision of information to consumer labelling

Does NOT cause cancer and 60 other diseases

Is NOT addictive

Is NOT third leading risk factor for chronic disease

PROVIDES information to consumers

DOES cause cancer and 60 other diseases

IS addictive

IS third leading risk factor for chronic disease

DOES NOT provide any information
Calling for better labelling from 2008

Preliminary library of alcohol health information and warning labels

What’s in this drink? Eurocare’s position on ingredients and nutritional information

What’s not on the bottle? Eurocare Reflections On Alcohol Labelling
All alcoholic packages require pictogram or:

"Consumption of alcoholic beverages during pregnancy even in small amounts can seriously damage the child’s health"
Mock up labels

ALCOHOL CAN CAUSE CANCER

40% Vol
75cl

ALCOHOL MAY HARM
THE UNBORN BABY
Containers should be required to follow the spirit of Reg (EU) 1169/2011 and provide the following information on the label:

- Their ingredients
- Substances with allergenic effect
- Relevant nutritional information (energy values, kcal) per 100ml
What a difference binding legislation makes – same company

Wine without alcohol PROVIDES information to consumers

Wine with alcohol DOES NOT provide information to consumers
Eurocare position

• Alcohol labelling deserves to be more prominent in the field of European alcohol policy

• It has better legislative potential (legal basis)

• Unique opportunity for dissemination of health information at the point of sale and consumption

• It would contribute to the shift of paradigm- important first step in raising awareness, increasing knowledge and change perception of risks associated with alcohol consumption
Eurocare recommendations

Containers should be required to provide the following information:

• Ingredients
• Substances with allergenic effect
• Relevant nutrition information (energy values, kcal)
• Alcoholic strength mg/ml
• Rotating health information on front pack/label
It is the right of the consumer to be allowed to make informed choices.

It is the obligation of public institutions to ensure consumers are able to make informed choices.

euroCare
European Alcohol Policy Alliance
Thank you for your attention

#RightToKnow

Please visit http://www.alcoholandcancer.eu

Please register www.8eapc.eu

8th European Alcohol Policy Conference
20-21 November 2018

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