

## AMPHORA scientists find that the average European drinks alcohol at the toxic level for causing cancer

- European scientists uncover a major mismatch between alcohol's role in causing cancer and the regulations that are put in place to protect our health.
- With about 136,000 new alcohol-caused cancers a year in the European Union, between one fifth and one quarter of all alcohol-related deaths amongst 15-64 year olds are from cancer.
- The AMPHORA Project manifesto calls for cancer warning labels on all alcoholic beverages and states that it is now time to ban alcohol advertising.

**Stockholm, Thursday 18<sup>th</sup> October, 2012.** Three drinks a day, the average amount drunk by Europeans, is the same as the toxic level that causes cancer. This level of consumption leads to about 136,000 new cancers a year in the European Union and puts Europeans at a lifetime risk for cancer more than twice that of daily exposure to second-hand smoke. These are some of the findings of the Alcohol Public Health Research Alliance (AMPHORA) a 4-year European Research project, lead by the Hospital Clínic de Barcelona (HCPB), organising its final conference with the Swedish Medical Society in Stockholm, 17<sup>th</sup>-19<sup>th</sup> October.

As part of the AMPHORA project, Dirk Lachenmeier and Jürgen Rehm of Dresden Technical University in Germany analysed toxic substances in samples of alcohol from all over Europe. They found that the most dangerous compound was ethanol itself – the intoxicating chemical compound found in all alcoholic drinks. This compound breaks the toxic limits set by EFSA (the European Food Safety Authority, the keystone of European Union risk assessment regarding food), not only because alcoholic drinks cause cancer, but also because they cause more than 200 other diseases and conditions.

Toxic thresholds, above which a poison has a harmful effect, are usually calculated as the maximum amount of the substance that can be consumed related to body weight. Based on thorough reviews of the scientific evidence, Lachenmeier and Rehm found that the toxic threshold or toxic dose for ethanol for a European of average size (74 kg) is 32 grams of alcohol, just over three alcoholic drinks a day.

As bad luck would have it, this is about the amount that the average European drinks, meaning that many people in Europe are consuming ethanol at a toxic level. According to EFSA guidelines for limits for genotoxic carcinogens, if ethanol were treated in the same way as other toxic compounds in foods such as preservatives, pesticides, mycotoxins or heat-induced contaminants, the limits would be one thousandth the toxic dose, no more than one drink a year. For diseases other than cancer, the limit would be one tenth the toxic dose, about two drinks a week.

### Previous findings ignored

The AMPHORA research is not the first to uncover or quantify the risk of ethanol as a toxic substance, but it is worrying to note the lack of attention that this line of research has received from governments and agencies that have a duty to protect our health.

In 1997, the Finnish Product Control Agency for Welfare and Health was asked by the chairman of the European Commission Working Group on classification and labelling of dangerous substances to assess the long-term health effects of ethanol according to the criteria of European Union Directive

67/548/EC on classification, packaging, and labelling of dangerous substances. In this Directive, a substance is defined as a chemical element, and a toxic substance is one, that, if taken internally, may involve health risks or even death, and a harmful substance is one which may involve limited health risks. The Agency assessed ethanol and proposed that it should be classified as **reprotoxic (category 1, Substances known to cause developmental toxicity in humans)** and thus should be labelled "**May cause harm to the unborn child**". This also implied that ethanol is classified "**Toxic**", and should have a **human skull as a pictogram warning**. Ethanol was classified as **mutagenic (category 3)**. The assessment proposed to include a warning on the label that **long-term oral exposure to ethanol can cause serious adverse effects on health**. On receiving the assessment, the European Commission Working Group removed it from its agenda, and so it was never fully enacted.

Thus, the major mismatch between alcohol's role in causing cancer and the regulations that could have been put in place to protect our health continues to put lives at stake. In addition to cancer, alcohol kills in other ways, for example, from hypertension and strokes, liver disease, as well as from injuries, accidents and suicides. This adds up to around 120,000 alcohol-related deaths each year, even taking into account any protective effect on ischaemic diseases.

Policy making and European governments urgently need to open their eyes to the dangers of alcohol, which are currently being denied, and work effectively and quickly to reduce European drinking, as well as warning citizens about the toxic risks of ethanol.

### **The Manifesto**

"Of course, there is no way that we could expect European citizens to adjust their drinking habits to respect the EFSA limits on toxic thresholds for cancer (one drink a year)", noted Peter Anderson, Professor of Substance Use, Policy and Practice at Newcastle University, England, and co-lead of the AMPHORA project, "but there are urgent things that governments need to do, like making information and health warning labels mandatory on all alcohol beverage containers, in the same way that cigarette packets carry labels saying that cigarettes cause cancer; and, like banning all forms of commercial communications on alcohol, as has been done for tobacco."

The AMPHORA scientists have developed a manifesto, presented during the European Debate on Evidence-based Alcohol Policy that takes place in Stockholm, calling for strong and simple policy measures to tackle the European alcohol problem. Amongst a range of measures, the manifesto calls governments to adopt the most cost-effective evidence-based policies, namely increasing price through taxes, reducing the availability of alcohol, and banning all forms of alcohol advertising.

### **The AMPHORA Project**

AMPHORA is a four-year €4 million project co-financed by the Seventh Framework Programme (FP7) of research of the European Commission and coordinated by the Hospital Clínic de Barcelona (HCPB) in Spain. AMPHORA aims to contribute with new evidence on scarcely explored or unexplored areas of alcohol consumption and alcohol-related harm in Europe. This knowledge will be disseminated to those engaged in policy-making for development and implementation of more effective public health measures.

The full AMPHORA manifesto, as well as a video version, can be found at: [www.amphoraproject.net](http://www.amphoraproject.net)

For more information please contact:

<p><b>Fleur Braddick</b> AMPHORA Project Communications officer <a href="mailto:Fleur.braddick@gmail.com">Fleur.braddick@gmail.com</a> Tel: +34 616 025 554</p>
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