

# An unattainable WHO condition for the enjoyment of wine

## Dr Erik Skovenborg



When it comes to alcohol consumption, there is no safe amount that does not affect health,” WHO warned the public. “It doesn’t matter how much you drink—the risk to the drinker’s health starts from the first drop of any alcoholic beverage.” The WHO statement clarifies, “Currently available evidence cannot indicate the existence of a threshold at which the carcinogenic effects of alcohol ‘switch on’ and start to manifest in the human body. To identify a ‘safe’ level of alcohol consumption, valid scientific evidence would need to demonstrate that at and below a certain level, there is no risk of illness or injury associated with alcohol consumption.”

### Low risk or no risk?

Allow me to quote a blog published by the UK Health Security Agency: “As the nation’s top public health advisory body, it’s a pretty regular occurrence for Public Health England to release health advice on a range of topics. Often enough, the bottom line for one of these pieces of advice is that the issue at hand ‘poses a low risk to health.’ Sometimes it’s even a ‘very low risk.’ What we never say, however, is that it poses *no* risk, and that’s where people start to get worried.

“Working out whether a given thing—whether it’s a substance, circumstance, or condition—causes a particular effect on health isn’t as simple as you might imagine. [...] All kinds of things could have confounded our search for evidence that would prevent 100% certainty. Perhaps something causes a negative health effect in one person in every 100,000 but we only looked at 10,000 people. Perhaps the technology we have isn’t good enough yet to detect the relationship between cause and effect that we would need to see. [...] Simply put, science can’t prove a negative.”<sup>2</sup>

### Given that prohibition was notably unsuccessful, the WHO recommends as an alternative an unattainable condition for the enjoyment of wine: the scientific demonstration of a 100% safe level of alcohol consumption

### The prevention paradox

The WHO is convinced that public health is best served by universal abstaining from wine, beer, or spirits. At the heart of sensible wine drinkers’ concern, however, is the prevention paradox—that is, that targeting the drinking habits of the majority of the population (at medium or low risk for alcohol-related ill health) is effective at population level but has little effect at the individual level. For that reason, it has proven difficult to persuade people to change their behavior where it places them only at a low risk of a bad outcome. Given that prohibition was notably unsuccessful, the WHO recommends as an alternative an unattainable condition for the enjoyment of wine: the scientific demonstration of a 100% safe level of alcohol consumption.

“Because virtually everything is risky, it is meaningless to be told that something poses a potential risk. Until we know what the magnitude of the risk is, we cannot decide whether it poses an unacceptable risk,” Dr Larry Laudan (expert in the logic of scientific inference) advises his readers.<sup>3</sup>

### The magnitude of risk

The WHO’s estimation of the magnitude of risk is the ambiguous “no safe level.” But where the WHO goes low on explicitness, we shall go high on serious

searching for the risk of light to moderate wine enjoyment. Aaron E. Carrol, professor of pediatrics at the Indiana University School of Medicine, has looked at the link between alcohol and cancer for the *New York Times*.<sup>4</sup> “Citing evidence, the American Society of Clinical Oncology warned that even light drinking could increase the risk of cancer. A 40-year-old woman has an absolute risk of 1.45% of developing breast cancer in the next 10 years. This announcement would argue that if she’s a light drinker, that risk would become 1.51%. This is an absolute risk increase of 0.06%. Using what’s known as the Number Needed to Harm, this could be interpreted such that if 1,667 40-year-old women became light drinkers, one additional person might develop breast cancer. The other 1,666 would see no difference. It’s even cherry-picking to focus only on cancer, though. A person can get any number of diseases, and this fact makes the dangers of light and moderate drinking even muddier. If you accept the methodology of case-control and cohort studies, from which many of the links between alcohol and cancer arise, you have to accept the results of similar studies of other diseases. Acknowledge the harms, as well as the benefits, of recommendations. Consider both cost and joy.”

What’s more, an increased incidence of some cancers in light drinkers will not necessarily translate into increased attributable cancer mortality. Jin et al found the relative risk of cancer mortality in light drinkers reduced by 9% (CI 6–11%) when compared with occasional/non-drinkers in a meta-analysis of alcohol drinking and cancer mortality.<sup>5</sup>

### Lifestyle and risk modification

A Dutch cohort study found a significant inverse relationship between a healthy lifestyle score (HLS) and postmenopausal breast cancer risk. A one-point increment of the HLS was accompanied

by a hazard-ratio reduction of 20% for overall breast cancer. The level of healthy lifestyle compliance according to alcohol intake was: full = 1 point ( $\leq 10$ g/day), partial = 0.5 point ( $> 10$ – $< 25$ g/day), and no compliance = 0 point ( $\geq 25$ g/day).<sup>6</sup>

An increased cancer mortality in light drinkers will not necessarily translate into increased overall mortality because light drinking may be part of a cluster of healthy lifestyle habits such as no smoking, more exercise, and a healthier diet. Kabat et al constructed a 5-level score measuring adherence to American Cancer Society guidelines by combining the body weight (0–3), physical activity (0–3), overall diet (0–3), and alcohol (0–2) scores, yielding a total score ranging from 0 to 11 points.<sup>7</sup> The alcohol score included three levels: score = 0 (men,  $\geq 3$  drinks/day; women,  $\geq 2$  drinks/day), score = 1 (nondrinkers), and score = 2 (men, 1–2 drinks/day; women, 1 drink/day). The risk of all cancers combined was 10% lower in men and 19% lower in women for the highest level of adherence compared with the lowest. High adherence was also associated with a 25% reduced cancer mortality in men and women, and reduced all-cause mortality: 26% lower in men and 33% lower in women.

### Balancing risks and benefits

All enjoyable activities are associated with some level of personal risk. For example, no safe level of cycling has been established—there are about 5.5 times more traffic deaths per kilometer traveled by bicycle than by car for all ages.<sup>8</sup> But do the health benefits of cycling outweigh the risks? For Dutch individuals who shift from car to bicycle, Johan de Hartog et al estimated that beneficial effects of increased physical activity are substantially larger (3–14 months’ life expectancy gained) than the potential mortality effect of increased inhaled air-pollution doses (0.8–40 days lost) and the increase in traffic accidents (5–9 days lost).

*The World of Fine Wine* readers would wish to consider the beneficial effects of light drinking compared with the potential level of risk. A recent study analyzed data from Nurses’ Health Study (n=73,196) and Health Professionals Follow-Up Study (n=38,366) to estimate healthy life expectancy free of cancer, diabetes, and cardiovascular disease according to adoption of five low-risk lifestyle factors: never smoking, body mass index 18.5–24.9, moderate to vigorous physical activity, moderate alcohol intake (women: 5–15g/day; men 5–30g/day), and a higher diet quality score.<sup>9</sup> When only four lifestyle factors (without alcohol) were included, women who adhered to all four low-risk lifestyle factors had 9.5 years’ (men: 8.8 years’) longer healthy life expectancy than did those with none of these factors. After further inclusion of moderate alcohol consumption, women who adhered to all five low-risk factors had 12.5 years’ (men: 9.6 years’) longer healthy life expectancy than did those with none of these factors. Moderate wine drinking is a “very low risk” activity.

### Logos, ethos, and pathos

Aristotle taught that a speaker’s ability to persuade an audience is based on how well the speaker appeals to that audience in three different areas: logos,

ethos, and pathos. Logos appeals to the audience’s reason, building up logical arguments. Pathos appeals to the emotions—trying to make the audience feel worried or even scared, for example. Ethos appeals to the speaker’s status or authority, making the audience more likely to trust them. With the assertion that “the risk to the drinker’s health starts from the first drop of any alcoholic beverage,” the WHO has given pathos the highest priority; but by suggesting an evidenced “no risk” condition for enjoyment of wine, the WHO has irrevocably bungled its logos, and the flawed line of reasoning has blemished the WHO’s shining reputation with severe damage to its ethos.

### NOTES

1. BO Anderson, N Berdzuli, A Ilbaei, D Kestel, et al, “Health and Cancer Risks Associated with Low Levels of Alcohol Consumption,” *Lancet Public Health* 8 (2023), e6–e7.
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8. J Johan de Hartog, H Boogaard, H Nijland, G Hoek, “Do the Health Benefits of Cycling Outweigh the Risks?” *Environmental Health Perspectives* 118 (2010), pp.1109–16.
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