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EDITORIAL

Are alcohol control policies bad for the heart?

My starting point for this editorial is Sir Richard Doll's assertion in this special issue on "Drinking patterns and their consequences" that the formulation of public policy is now greatly complicated by the conclusion that "a certain amount of alcohol can have a beneficial effect on personal health, decreasing mortality from some major conditions to such an extent that in middle and old age it more than compensates for an increased mortality from others" [1]. He then specifically mentions policies which aim to reduce average consumption of the population, for example by increasing taxation, as needing to be reconsidered. I will argue here that the emerging drinking patterns paradigm does indeed greatly complicate both alcohol research and policy in a number of ways and that we need to re-evaluate the case for a range of alcohol control policies. In some instances this should result in more effective policies better targeted at harm and high risk drinking and, in others, a re-affirmation of long-espoused prevention policies.

Research apparently confirming the beneficial effects of moderate alcohol consumption has been but one stimulus for the emergence of a new "drinking patterns" paradigm [2]. To this can be added a number of studies which have examined whether an individual's frequency of heavy drinking episodes contributes to their risk of a range of alcohol related harms over and above their average level of consumption. As summarized by Rehm *et al.* [3] reporting on the conclusions of a 1995 International Symposium on Drinking Patterns and their Social

and Health Consequences, measures such as frequency of drinking five or more "drinks" adds significantly to the predictive power of average drinking measures in relation to both chronic and acute alcohol problems—but especially for acute problems, i.e. those associated with intoxication.

The papers presented in this special issue are a selection from the 2nd International Conference on Drinking Patterns and their Consequences held in Perth in February 1998 and hosted by the National Centre for Research into the Prevention of Drug Abuse, Curtin University. A number of these papers, including those of Bondy & Rehm [4] and Wichstrom [5] in this issue provide further evidence for the importance of measuring drinking pattern as opposed to overall volume over time in terms of the power of such measures to predict significant harm. The importance of such measurement has been further highlighted by advances in epidemiological studies which seek to quantify the social and health consequences of drinking. Those consequences which can be labelled as "acute", i.e. at least partially caused by an episode of intoxication, have been shown to account for about half of all alcohol-related deaths and, because deaths from acute causes usually involve younger people, the great majority of potential years of life lost (PYLLs) due to alcohol [6,7]. Single *et al.* [6] data show that people dying of acute causes lost an average of 36.6 years of life each while those dying from chronic disease caused by long term heavy alcohol use lost an average of 18.9 potential years of life each.

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Other papers in this special issue unpack the concept of drinking patterns further by examining how the relationship between drinking patterns and their consequences is modulated by socio-demographic and ethnic factors [4,8], by beverage type [9] and by a range of social and cultural factors [10]. Russell *et al.* [11] add a further important dimension of changing patterns of drinking over the life course and emphasize the need for lifetime measures of drinking behaviour in cohort studies examining links between drinking behaviour and health outcomes. Collectively these papers paint a vivid picture of the variability in drinking behaviour and its consequences expressed rather differently in different cultures, times and places. In particular two contrasting drinking patterns emerge with very different sets of consequences:

- (i) regular consumption of small amounts of alcohol per day usually by middle-aged individuals with middle to upper incomes who tend to prefer wine over other beverages and who are likely to live longer due to a lower risk of coronary heart disease (CHD); or
- (ii) a pattern of occasional "excessive" drinking where this is defined as, roughly, in excess of 60 g of alcohol on a drinking day (often much more than this) usually by young people, usually single males who prefer beer and spirits, often on licensed premises and who have a significantly elevated risk of dying from a motor vehicle accident, a violent assault or by suicide.

Returning to Sir Richard's question, will reducing population alcohol consumption result in a greater reduction in the benefits by the those in (i) above than in the costs experienced by those in (ii)? In probably the most sophisticated study yet conducted in this area, Single *et al.* [6] estimated that, in Canada in 1992, there were slightly more lives saved due to the protective effects of moderate alcohol consumption against coronary heart disease (7401) than were lost due to its adverse effects on health and behaviour (6701). This would suggest that, all other things being equal, alcohol control policies, if effective, would result in *greater* loss of life. However, Single *et al.*'s [6] estimate of the number of potential years of life saved was only 12.0 years per person and the total of 88 656 years of life saved was much less than the total estimated 186 257 potential years of life lost. Perhaps one day a study will also

attempt to estimate the impact of drinking patterns on the quality of life, too, but for the time being, in terms of the sheer number of potential years of life, the advantage appears to rest with policies which reduce overall alcohol consumption.

Does this mean that alcohol control policies need to be advocated on the basis of trading many older lives lost for fewer young lives saved? Perhaps, to some degree, but we also know that the impact of many control policies is not distributed evenly across all significant sub-groups of drinkers. For example, there is evidence that increases in the price of alcohol have a disproportionate effect on regular high consumption drinkers [12] and also young drinkers [13]. There are also a few studies suggesting that people who drink only a small amount per occasion are, proportionately, the least effected by price increases while those who drink a large amount or an intermediate amount per occasion reduce their consumption the most [14]. Increasing the price of alcohol is widely regarded as one of the most effective means of reducing alcohol-related problems [15], even if it is also one of the least popular [16]. Further research is needed, but on the evidence available to date it would seem plausible to suggest that increases in the price of alcohol would reduce the benefits of alcohol consumption to older, lighter drinkers only minimally and would reduce the costs of excessive alcohol use by younger, heavier drinkers to a greater degree.

Casswell [15] has argued cogently that alcohol control policies in general will have minimal impact on the older drinkers likely to benefit from the protective effects of moderate consumption. Policies which limit the density and hours of trading of liquor outlets, especially those for consumption of alcohol on the premises will impact most on the younger, higher risk drinkers who prefer such drinking settings [17] as will policies to deter underage and intoxicated drinking on licensed premises. Enforcement of drink-driving laws are perhaps not properly regarded as alcohol control policies *per se* as they target drinking and driving not drinking in general, although these also are more likely to impact on younger drinkers.

While these arguments to maintain alcohol control policies despite the claimed major benefits of moderate alcohol consumption appear convincing, there is still a case for a more sophisticated approach to the development of alcohol policies so that, where possible, they are targeted on high-risk drinking and

harm and away from low-risk drinking and beneficial consequences. One example is in relation to recent Australian research showing that population consumption levels of different alcoholic beverages have very different implications for adverse consequences: per capita consumption of cheap cask wine and regular strength beer was found to be highly related to a range of acute adverse consequences of drinking across 130 areas of Western Australia [18]. By contrast, local per capita consumption of low alcohol beer (less than 3.8% by volume) and of bottled wine was either negatively related or unrelated to such adverse outcomes. These findings suggest that rather than an across the board policy of increasing the prices of all alcoholic drinks, tax increases should be targeted particularly at high risk products such as cask wine, equally with compensatory decreases in the tax levied on low risk products such as low alcohol beer.

Another example of a more disaggregated and discerning approach to alcohol policy is to acknowledge the fact that there are special needs and special problems in certain localities. While general restrictions on the physical availability of alcohol do not usually enjoy wide public support, both legislation and regulatory authorities can provide clear opportunities and the flexibility for communities to regulate the supply of alcohol in their locality. The ability to influence trading hours and numbers of outlets are examples of available options. Such an opportunity is especially important in remote Aboriginal communities, where excessive drinking and related harm are of epidemic proportions and where such restrictions have been sought by concerned local people [19].

At this stage an honest answer to the question "are alcohol control policies bad for the community's health" is "not necessarily" and certainly not for acute alcohol-related problems which constitute half of the lives lost from drinking too much alcohol, generally involve young people, have high impacts on members of society other than drinkers and which, collectively, contribute the great bulk of potential years of life lost from alcohol-related causes. The drinking patterns paradigm throws up new challenges to researchers to be more precise in their measurements of drinking behaviour and so be able to assess a wider range of outcomes when evaluating the impacts of policy initiatives. If pursued rigorously, this approach should result in the development of a range of more effective prevention policies better targeted at harm and

high-risk drinking and better adapted to local needs.

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