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Prevention better than harm reduction

Though I appreciate that harm-reduction strategies may be the best option for established smokers who are unable to overcome their nicotine addiction, surely prevention is an even better goal?¹

About 80% of adult smokers started smoking before they were 20 years of age.² At that age, human brains are not fully developed, and we are more prone to develop a nicotine addiction. Teenage smokers think that they will be able to quit before they suffer permanent health damage, but one-third of them will die early from smoking-related diseases.³

In the United States, many people understand that 18 or 19 years is too young to allow legal access to a known carcinogen, an addictive substance that can never be used safely. In 2005, in Needham, Massachusetts, the minimum legal age for buying tobacco began to increase, to 21 years.⁴ The rate of smoking among high school students then dropped from 12.9% to 6.7%, a percentage decline that was nearly triple that of its neighbours.⁴ The state of Hawaii and 118 cities in nine US states, including New York, Boston and Cleveland, have now increased the minimum legal age for buying tobacco to 21.⁵

The Institute of Medicine calculated that increasing the smoking age to 21 years in the US would result in a 25% decrease in smoking initiation among young people and a 12% drop in overall smoking rates.⁶ It would

avert 16 000 cases of preterm birth and low-birth-weight infants in the first five years of the policy and prevent 4.2 million years of life lost to smoking in kids who are alive today.⁶

In Tasmania,⁷ a proposal is being presented to increase the smoking age by one year every year to create a smoke-free generation. People born after a specific year would never become old enough to buy tobacco legally.

In some parts of Canada, the legal age for buying tobacco is 19 years, and the average smoking prevalence is 17.3%.⁸ In provinces and territories with an age limit of 18 years, the prevalence is 19.3%. There is nowhere in Canada where one has to be over 19 years to buy tobacco.⁸

Tobacco 21 needs to come to Canada.

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Resting heart rate and wearable technology

Zhang and colleagues have reported a well-conducted meta-analysis describing the association between resting heart rate and all-cause and cardiovascular mortality in the general population.¹ They found an increased risk of mortality in patients with a resting heart rate even within the normal range (60 to 100 beats/

min). Although there is little clinical data on the benefits of heart rate reduction in otherwise healthy patients free of cardiovascular risk factors or disease, this study may provide valuable information to engage and empower patients.

There is a clear increase in the popularity of wireless heart rate monitors, fitness trackers and wearable body sensors.² Patients are using these devices for a variety of reasons, such as to track the number of steps taken per day and sleep quality, but they also use them to monitor heart rate. Physicians are being asked by patients to interpret the heart rate data logged by their wearable technology. Because these devices are not medical grade, questions about their data are often dismissed by clinicians. We believe this is a missed opportunity to engage and collaborate with the patient.

Patients who use a wearable device have taken a voluntary step toward improving their health. Dismissing questions about the heart rate data tracked by their device may deter patients from taking these initiatives. Although resting heart rate is influenced by various factors, long-term physical fitness, especially endurance training, is associated with a lower resting heart rate.³ Zhang and colleagues' study findings may be informative to patients and open the dialogue to discuss safe and appropriate fitness goals, counsel on other lifestyle changes and provide overall encouragement and support. Physicians should still confirm resting heart rates with medical grade equipment and inform patients that heart rate reductions in otherwise healthy patients have not been proven to lower risk. But for now, it appears that the lower the resting heart rate the better.

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