

Instructions:

Please read the News and Views article from Nature Medicine, written by Anick Bérard.

Then, answer the following questions (you may answer the questions in Portuguese, English or Spanish):

(Total score: 10.0)

1. What is the analogy described in the text, between the 1906 Tobacco Restraint Act and the recent Cannabis legalization in Canada? (2.5 points)
2. The author considers that the data available from clinical trials do not reflect the real world data, and that observational studies are more reliable to fully determine the incidence of cannabis-associated consequences to newborn and children. What supports the author's opinion? (2.5 points)
3. According to the text, the incidence of autism spectrum disorders has increased over the years. Which are the possible reasons, discussed in the text, for such increase? (2.5 points)
4. In the text, the author writes that "Hence, studies of the risk of cognitive outcomes in newborns and children should mostly consider the second or third trimester, not overall pregnancy...". Indeed, good selection criteria are essential to ensure meaningful study results. In your opinion, how could the outcomes of a study be affected by enrolling newborns/children exposed to cannabis at any time of pregnancy instead of only enrolling those exposed in the second/third trimester? (2.5 points)

Answers/gabarito:

1. According to the text, an increase in the frequency of cannabis use has already been detected since legalization in Canada, in 2018, similarly to what occurred after tobacco was legalized.

De acordo com o texto, um aumento no consumo de cannabis já está sendo detectado, no Canadá, desde 2018, à semelhança do que ocorreu após a legalização do tabaco.

2. Cannabis was illegal until recent years and clinical trials exclude pregnant women, so observational studies or health-insurance databases are more reliable as source of real-world data.

A cannabis era ilegal até recentemente e os trials clínicos excluem gestantes, portanto estudos observacionais e relatórios de empresas de seguros de saúde são fontes mais confiáveis de dados de vida real.

3. The increased incidence of ASD prevalence over the years may be due to widening of diagnostic criteria, improved detection and recoding of intellectual disability, but environmental factors may have a role.

De acordo com o texto, a incidência de doenças do espectro autista tem aumentado ao longo dos anos, possivelmente em consequência a ampliação dos critérios, aumento de detecção e recodificação de incapacidade intelectual, mas fatores ambientais poderão ter um papel.

4. Fetal brain develops during the second and third trimesters of pregnancy. Therefore, when only newborn/children knowingly exposed to cannabis in the second and third trimester of pregnancy are enrolled, there is a higher chance of detecting ASD. However, in a study with more comprehensive criteria (overall pregnancy), that may enroll patients exposed only in the first trimester, there may be a selection bias and decrease the number of affected patients.

O cérebro fetal se desenvolve durante o segundo e terceiro trimestres da gravidez. Assim, quando um estudo inclui somente recém-nascidos e crianças sabidamente expostos à cannabis durante o segundo e terceiro trimestres de gestação, existe uma probabilidade maior de detectar doenças do espectro autista. Entretanto, estudos com critérios de inclusão mais amplos (com exposição à cannabis em qualquer momento da gravidez) podem incluir crianças expostas somente durante o primeiro trimestre da gestação e, assim, criar um viés de seleção que diminui o número de pacientes potencialmente afetados.