



## Unreliable estimation of prevalence of fetal alcohol syndrome

Svetlana Popova and colleagues (March, 2017)<sup>1</sup> sought to estimate the global, regional, and national prevalence of alcohol use during pregnancy and fetal alcohol syndrome (FAS). The authors reviewed international literature from 1984 for country-specific quantitative studies and for countries with one or no studies they predicted gestational alcohol use prevalence by fractional response regression modelling and prevalence of FAS by an estimated quotient for the average number of women consuming alcohol during pregnancy per one case of FAS. For estimation of FAS prevalence, Italy was reported to be among the five countries worldwide with the highest prevalence of FAS per 10 000 people.

On the basis of our involvement in studies about national prevalence of gestational alcohol consumption and consequent prenatal exposure to this teratogen,<sup>2-5</sup> we have to disagree with the estimates reported by the authors.

First, according to WHO,<sup>6</sup> Italy is the country with the lowest annual consumption of alcohol per capita (6.7 litres), lowest percentage of women with alcohol use disorders (0.8%) and alcohol abuse dependence (0.4%), and the highest number of female lifetime abstainers (37.5%) among all European countries with the exclusion of eastern states with a prevalent Muslim faith (eg, Azerbaijan, Kyrgyzstan, and Tajikistan).

Second, only a few somewhat dated studies have investigated alcohol consumption during pregnancy in Italy,<sup>7-10</sup> which include a limited number of pregnant women in selected cities, and are therefore not representative of the general population. Additionally, self-reported drinking during pregnancy varied from one or more drinks per day to one per month or less in these studies.

That women's self-reporting of drinking varies has been confirmed by our studies<sup>2-5</sup> on objective assessment of prenatal exposure to alcohol through measurement of biomarkers in neonatal meconium. The overall prevalence of newborns prenatally exposed to maternal alcohol was 7.9%, within the 20–30% of pregnant women that self-reported drinking during pregnancy. Fetal exposure varied between 0% and 10% along the Italian peninsula with an isolated maximum value of 29.4% in Rome capital.

Furthermore, an observational, cross-sectional case-control study<sup>11</sup> used by the authors of 976 children aged 6–10 years, from an area of small towns immersed in the countryside in central Italy, estimated the rate of FAS as between 4 per 1000 and 12 per 1000 people in 2011. These rates cannot in any case be representative of the Italian population, because the study refers to very few individuals belonging to a specific biased suburban, rural area of wine producers.

We call on the national health community to recognise the need for a properly designed study on alcohol use during pregnancy, choosing a sample of Italian women representative of the general population with a targeted follow-up of newborns prenatally exposed by biomarker positivity to accurately calculate the prevalence of FAS cases. Any prediction based on non-reliable simulation or non-generalisable data cannot be deemed worthy of trust.

We declare no competing interests.

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