

Meeting the Global Comparability: Integration of Tobacco Questions in Surveys

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Background: In China, several national surveys ask questions about tobacco use. In order to allow for comparability of data over time and across different countries, tobacco surveys should utilize similar methods, and the survey questions should be identical or functionally equivalent. This study aims to compare and contrast the results of two China national surveys that used a set of identical questions of tobacco use.

Methods: Data for this study come from the 2010 Global Adult Tobacco Survey (GATS) China part (N=13,544) which was conducted in 100 counties and districts across China, and the 2010 China Non-communicable and Chronic Disease (NCD) Surveillance (N=96,871) conducted in 161 Disease Surveillance Points. Both surveys used a multi-stage stratified cluster sampling design. The target population for the GATS China survey was non-institutionalized Chinese residents aged 15 years and over, while the target population for the NCD surveillance was non-institutionalized Chinese residents aged 18 years and above. Therefore, we computed all the indicators for adults aged 18+ years in this study. Methods, sample characteristics, and major indicators of tobacco use were compared between the two surveys.

Results: The two surveys had several minor methodological differences. For example, in the last step of sampling, GATS China used a simple random sampling method to select one individual from each household, while the NCD surveillance used Kish table method; GATS China used iPaq handhelds in data collection, while the NCD surveillance used paper-and-pencil. However, the two surveys generated similar results (relative difference<10%) in most key indicators. For example, the estimated prevalence of current smoking in China in 2010 (GATS China result vs. the NCD surveillance result) was 55.8% vs. 53.3% among adult males and 2.5% vs. 2.5% among adult females. The percent of former smokers among ever smokers was 16.8% in GATS China and 15.3% in the NCD surveillance. However, a few indicators were different in the two surveys. For example, the average number of manufactured cigarettes smoked per day among adult male smokers was 14.4 (95% C.I. 13.8-14.9) sticks in GATS China and 17.8 (95% C.I. 17.3-18.2) sticks in the NCD surveillance, respectively.

Conclusions: Integration of “standard” tobacco questions in surveys may help ensure comparability of most key tobacco use indicators across different countries and over time. However, differences in survey methods may still result in significant differences in some important indicators. Thus, methodological issues must be carefully taken into account when comparing the results of different tobacco surveys.