Proxy surveys in estimating prevalence of smoking

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BACKGROUND: Population surveys aimed to estimate prevalence of smoking are limited in reaching those members of the intended sample who rarely are present at home. Surveys of those proxy household members who are easier available could overcome this problem.

The study aimed to evaluate the possibility to estimate population smoking prevalence through proxy reports with the use of the Global Adult Tobacco Survey (GATS) data collected in Ukraine in 2010.

METHODS: Within the GATS methodology, data on all the adult household members of a selected gender was collected first from a household member present. Second, an individual interview was conducted with a selected individual.

Two approaches were used. First approach compared the whole population of all the reported household members with the population of all individual respondents. Estimates of prevalence were compared by age groups and by gender.

Second approach compared individual interview data with the data about same individuals provided by proxies.

RESULTS. Compared by gender groups, estimates of smoking prevalence based on proxy data are closer to the rates of current smoking in men and daily smoking in women. With regard to younger groups, proxies better relay daily smoking while occasional smokers may be not reported; in older groups, proxy estimates are higher than individual data as family members may be unaware of recent quitting.

In matched analysis most precise proxy reports were related to never smokers, experimenters, former smokers, and daily smokers. Discrepancies were related to occasional smokers, both those who never smoked daily and those who reduced smoking from daily to non-daily.

CONCLUSIONS. It is recommended to survey the adult who is ready to answer the questions about whole family. The study sample may be increased significantly at low marginal cost, and proxy survey allows estimating population smoking prevalence with the use of statistical corrections.

KEYWORDS: smoking prevalence, tobacco surveillance, individual survey, proxy survey, current smoking, daily smoking, Ukraine.

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