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Monitoring Behavioral Risk Factors for Cardiovascular Disease in Russia

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In Russia, as in the United States, the leading causes of death and disability are directly associated with behavioral risk factors such as tobacco use, poor diet, inadequate physical activity, and excessive alcohol consumption.[1] As part of an ongoing collaboration between the Centers for Disease Control and Prevention (CDC) and the Russian National Center for Preventive Medicine, a telephone-based behavioral risk factor surveillance survey was developed and tested in Moscow.

The questionnaire was modeled after the American Behavioral Risk Factor Surveillance System survey[2] and gathered information on participants' demographic characteristics, health status, quality of health care, fruit and vegetable consumption, smoking status, level of physical activity, and alcohol consumption. Moreover, it included items addressing respondents' awareness of their cholesterol, blood pressure, diabetes, and cardiovascular disease status. The survey comprised 13 modules, included 51 questions, and required approximately 10 to 15 minutes per interview.

Moscow was selected because there is almost universal residential telephone coverage, results could be used to plan prevention programs for a large portion of the population, and findings would be salient to Ministry of Health officials who reside in Moscow. The Russian National Center for Preventive Medicine conducted the survey as part of its ongoing public health responsibilities, and CDC provided assistance in analyzing the data.

A random sample of 3032 residential telephone numbers was selected. Up to 15 telephone calls were made to interview an adult aged 25 to 64 years in each household, and 1693 interviews were completed (representing 69.1% of those contacted and eligible, or 55.8% of the original sample). Prevalence rates of selected risk factors are shown in Table 1. The results of the survey indicate that telephones are a feasible way to collect behavioral risk factor data in Moscow, and these data provide valuable information that can be used to plan preventive programs and evaluate their effectiveness.

This survey was a first attempt in Russia to collect, by telephone, information on risk factors related to chronic diseases. The response rate was similar to rates found for other methods, and neither respondents nor interviewers appeared to have problems in asking or responding to the questions. A number of issues must be addressed before a national risk factor surveillance system can be established in Russia. Only a few communities have adequate telephone coverage, so many areas will have to be surveyed via personal or mail-based interviews.

TABLE 1—Prevalence of Selected Self-Reported Behavioral Risk Factors and Cardiovascular Disease in Moscow: Russian Behavioral Risk Factor Survey, 2000

Risk Factor	Men (n = 542), %	Women (n = 1151), %
Current smoking[a]	62.3	25.8
Blood pressure ≥ 140/90 mm Hg	32.9	28.4
Controlled hypertension	4.3	7.8
Body mass index ≥ 25.0	50.6	51.9
Low fruit and vegetable consumption[b]	65.6	66.8
Alcohol consumption		
<7 drinks/wk	62.6	77.1
7–14 drinks/wk	15.1	0.6
>14 drinks/wk	8.3	0.4
Binge drinking[c]	14.1	0.1
Sedentary lifestyle[d]	25.0	25.2
Cardiovascular disease or symptoms[e]		
Myocardial infarction	4.6	2.6
Angina or coronary heart disease	8.7	12.2
Stroke	1.3	1.3

[a]Those who have smoked at least 100 cigarettes and currently are smoking regularly.
[b]Less than 400 grams of fruits and vegetables (other than potatoes) consumed daily.
[c]More than 5 drinks on one occasion during the month preceding the interview.
[d]Mainly sedentary at work and during leisure time and less than 60 minutes of daily walking.
[e]As diagnosed by a physician.

Response reliability and validity must also be addressed. While complete standardization between methods may be impossible, harmonization of questions, data analysis, and interpretation will be required. Currently, the infrastructure for a national surveillance system is inadequate; most health data are facility based and focus on counting numbers of medical procedures or calculating rates of infectious diseases. Finally, the value of tracking population levels of risk factors for noncommunicable diseases must be demonstrated.

The collaboration between CDC and the Russian National Center for Preventive Medicine has been successful in placing prevention and public health on the national agenda; an important goal in our future collaboration is institutionalizing adequate data collection systems for planning and program evaluation. As a next step toward the goal of establishing a countrywide behavioral risk factor surveillance system, 15 more sites have agreed to collect risk factor prevalence information in 2001–2002. ■

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Contributors

H. Zabina and T.L. Schmid provided technical assistance in the analysis of the survey data and wrote the initial manuscript. I. Glasunov, R. Potemkina, T. Kamardina, A. Deev, S. Konstantinova, and M. Popovich contributed to the design, conduct, and analysis of the survey and to the writing of the manuscript.

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