

## Surveillance in developing countries: the WHO-STEPS Experience

Four out of five chronic disease deaths occur in low and middle income countries. A large fraction of these deaths could be prevented if the major underlying risk factors were eliminated. In spite of these facts, surveillance of chronic disease risk factors in low and middle income countries has been neglected in the past. The WHO STEPwise approach to chronic disease risk factor surveillance provides an entry point for low and middle income countries to get started on chronic disease surveillance activities. It is designed to help countries build and strengthen their capacity to conduct surveillance within the framework of an integrated, systematic approach aimed at a sustainable collection of data. The WHO STEPwise approach to chronic disease risk factor surveillance is based on the concept that surveillance systems require standardized data collection, as well as sufficient flexibility, in order to be appropriate in a variety of country situations and settings. The key feature of the STEPS framework is the distinction between different levels of risk factor assessment. Self-reported information is collected by questionnaire (step 1: demographic information, information on tobacco use, alcohol consumption, diet, and physical activity), blood pressure and anthropometric information are obtained by physical measurements (step 2), and information on blood sugar and blood lipids is obtained by biochemical analyses. Within each step, core, expanded, and optional information can be collected. At minimum, core information provides the basic, comparable variables to describe prevalence and trends in the most common risk factors. Expanded modules provide more detailed information, and optional modules can be added to provide data not included in the standard STEPS approach. WHO Geneva, in collaboration with the WHO regional offices, provides STEPS training to STEPS focal points through regional and country workshops, as well as through on-going technical advice and support. The WHO STEPwise approach to STEPS training is a “train the trainer” approach, which ensures that knowledge and capacity is improved and maintained within the region and country. Training covers all aspects of the planning, implementation, data collection, analysis, and dissemination of the results of a STEPS survey in the context of an integrated surveillance system. Currently, 104 countries worldwide are involved in the

WHO STEPwise approach to chronic disease risk factor surveillance out of which 47 have completed their first round of surveys (15 countries from the African region, 2 from the Region of the America's, 8 Eastern Mediterranean countries, 9 South East Asian countries, 13 Western Pacific countries). Country experiences show that the STEPS approach is, due to it's flexibility and low cost, feasible in a wide variety of settings.

**Regina Guthold**  
WHO, Europe