Objective Measurement of Physical Activity

Introduction
Questions on physical activity are included in Step 1 of the STEPS Instrument. This ‘subjective’ measurement relies on perceptions, memory, and judgments of the participant. However, physical activity can also be assessed ‘objectively’, through quantification of movement.

Common objective measures include devices such as accelerometers (activity watches), pedometers (step-counters), or Global Positioning System (GPS) units.

Accelerometer or pedometer measurements as part of Step 2
Measurements of physical activity with accelerometers or pedometers can be integrated in Step 2 of a STEPS survey. These measurements are generally done with a sub-sample, or ideally the entire sample of the survey, whereby each participant should wear the device over a few days.

Protocols for objective measurement of physical activity
Protocols for the integration of accelerometry and pedometry in Step 2 of a STEPS survey are available from the WHO Geneva STEPS team upon request. The protocols include an introduction to the measurements, background information and objectives, methods on how to implement the measurements, including survey logistics, as well as plans for data analysis and reporting.

Instructions and training materials for data collectors
Instructions for data collectors, as well as training materials for objective measurement of physical activity as part of STEPS are also available from the WHO Geneva STEPS team upon request. These instructions include a quick check list, information on device preparation, data collection procedures, data recording as well as device cleaning and storage.

Instructions for participants
Instructions for participants included in objective physical activity measurement with accelerometers or pedometers have also been developed, and are available from the WHO Geneva STEPS team upon request. They include guidelines on how to use the devices and frequently asked questions.

Devices at WHO Geneva
Countries interested in including objective measurement of physical activity in their STEPS survey may wish to contact the WHO Geneva STEPS team for loan of pedometers or accelerometers.