

WHO STEPwise Approach to Chronic Disease Risk Factor Surveillance (STEPS)

Presenter:

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Overview

- Why chronic disease risk factor surveillance in developing countries?
- What is STEPS?
- What approach does STEPS use?
- Country examples
- Which countries are involved?
- Costs of STEPS surveys



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Chronic disease risk factor surveillance in developing countries

- 2020: Chronic diseases responsible for 60% of deaths worldwide
- 4 out of 5 chronic disease deaths occur in low and middle income countries
- Many of these deaths could be prevented by interventions addressing major risk factors
- Problem for setting up interventions:
Lack of basic information on risk factors in many low and middle income countries



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What is STEPS?

- System for surveillance of chronic disease risk factors
- Designed for implementation in low- and middle income countries



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Objectives of STEPS

- Gather information on chronic disease risk factors for policy makers and intervention planning
- Collect standardized risk factor data, but allow flexibility
- Provide an entry point for low- and middle income countries to get started on chronic disease surveillance
- Build capacity in countries
- Integrated approach at low cost



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STEPS methods – The risk factors

■ Behavioural Risk Factors

- ◆ Tobacco use
- ◆ Harmful alcohol consumption
- ◆ Unhealthy diet (low fruit and vegetable consumption)
- ◆ Physical inactivity

■ Biological Risk Factors

- ◆ Overweight and obesity
- ◆ Raised blood pressure
- ◆ Raised blood glucose
- ◆ Abnormal blood lipids



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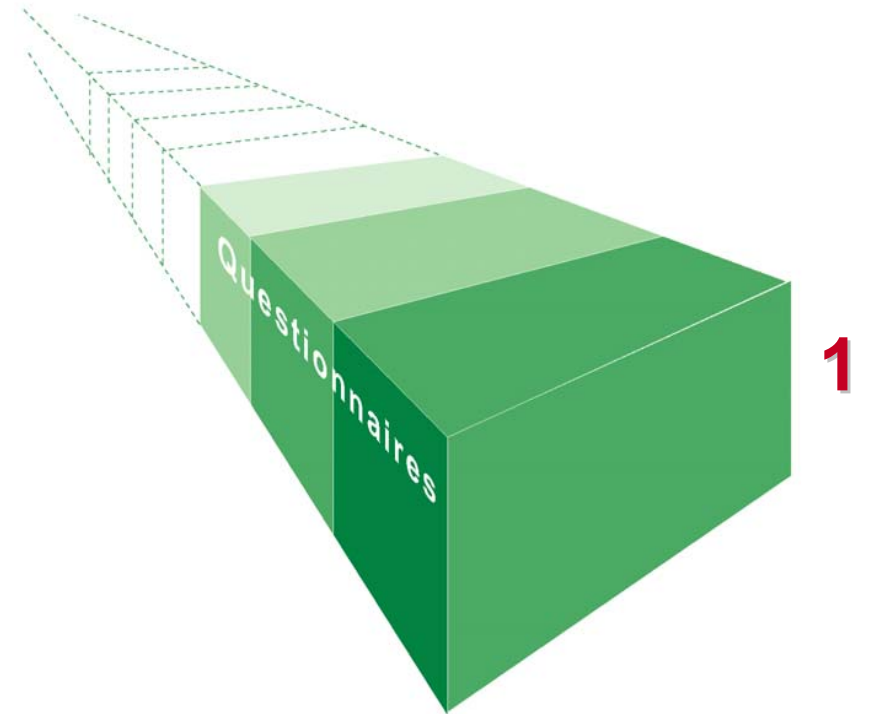
STEP1: Questionnaire

Core:

- Socio-demographic info
- Tobacco use
- Alcohol consumption
- Fruit & vegetable consumption
- Physical inactivity

Expanded:

- Smokeless tobacco, tob. use cessation
- Binge drinking
- Oil consumption
- History of high BP
- History of diabetes



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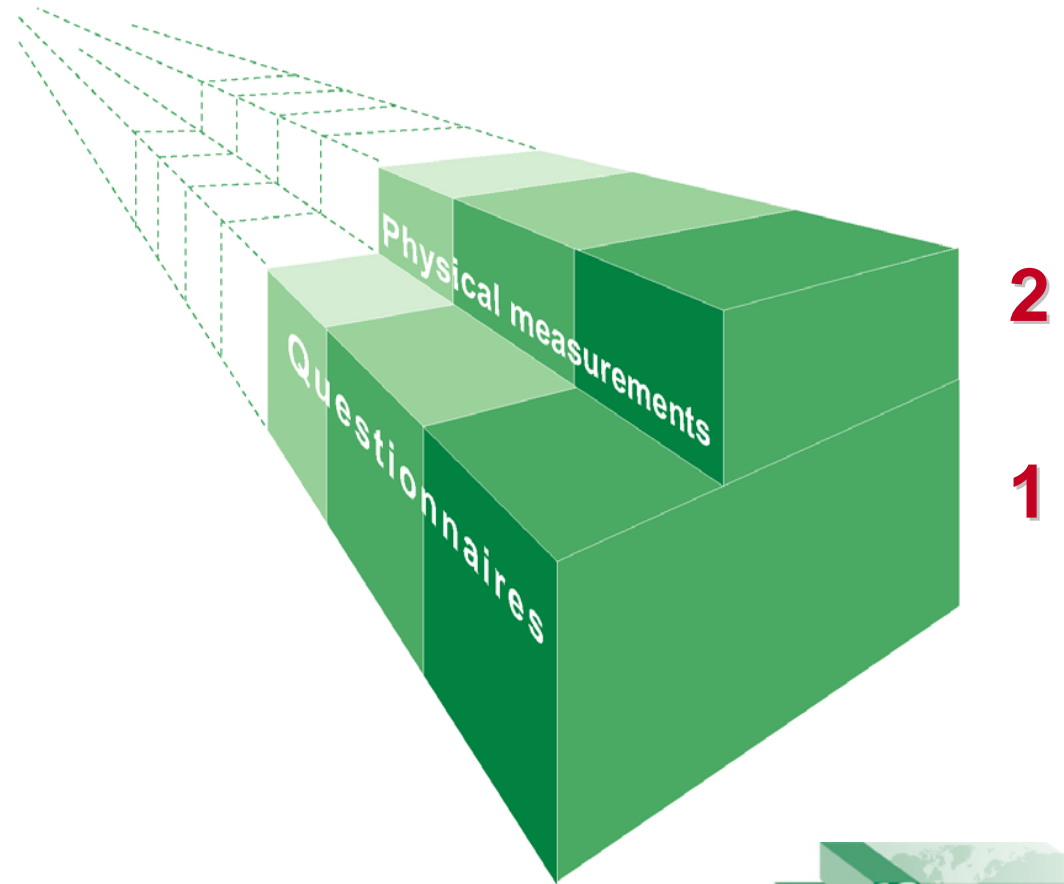
STEP2: Physical measurements

Core:

- Height
- Weight
- Waist circumference
- Blood pressure

Expanded:

- Hip circumference
- Heart rate



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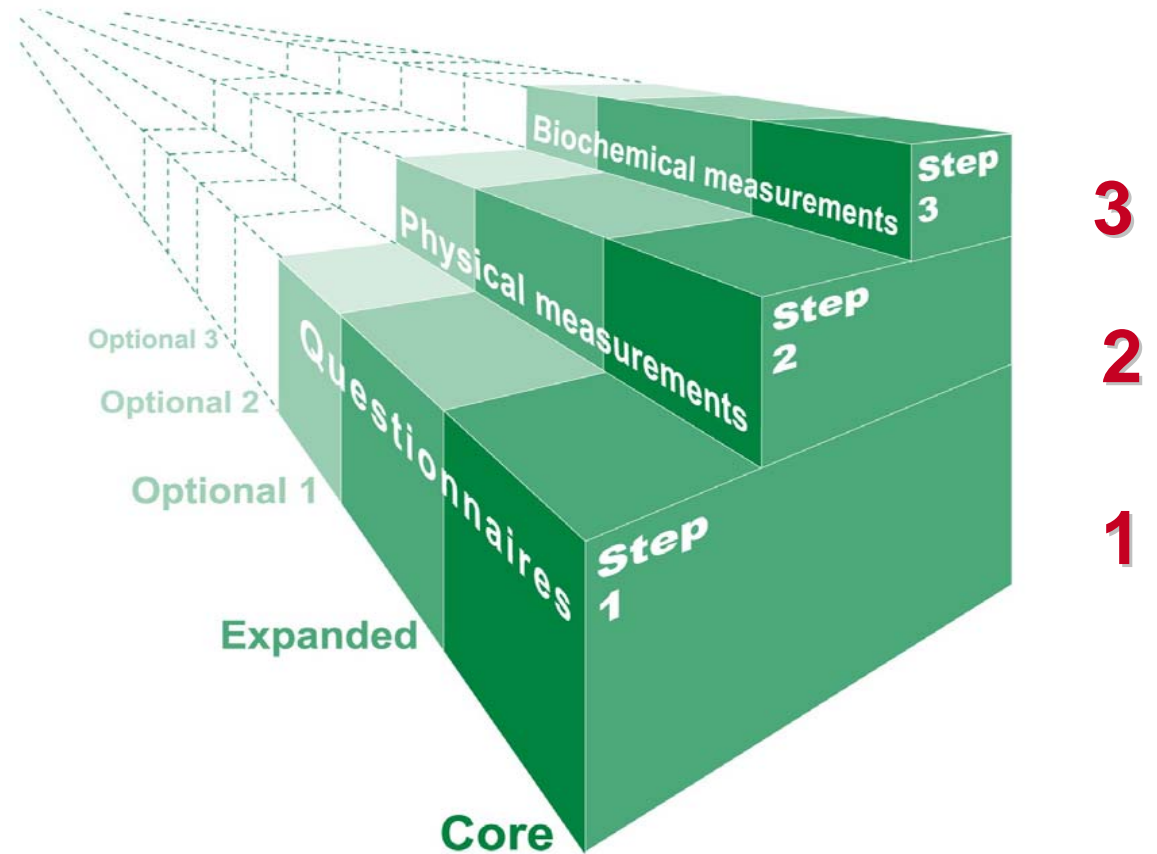
STEP3: Biochemical measures

Core:

- Fasting blood sugar
- Fasting total cholesterol

Expanded:

- Triglycerides
- HDL cholesterol



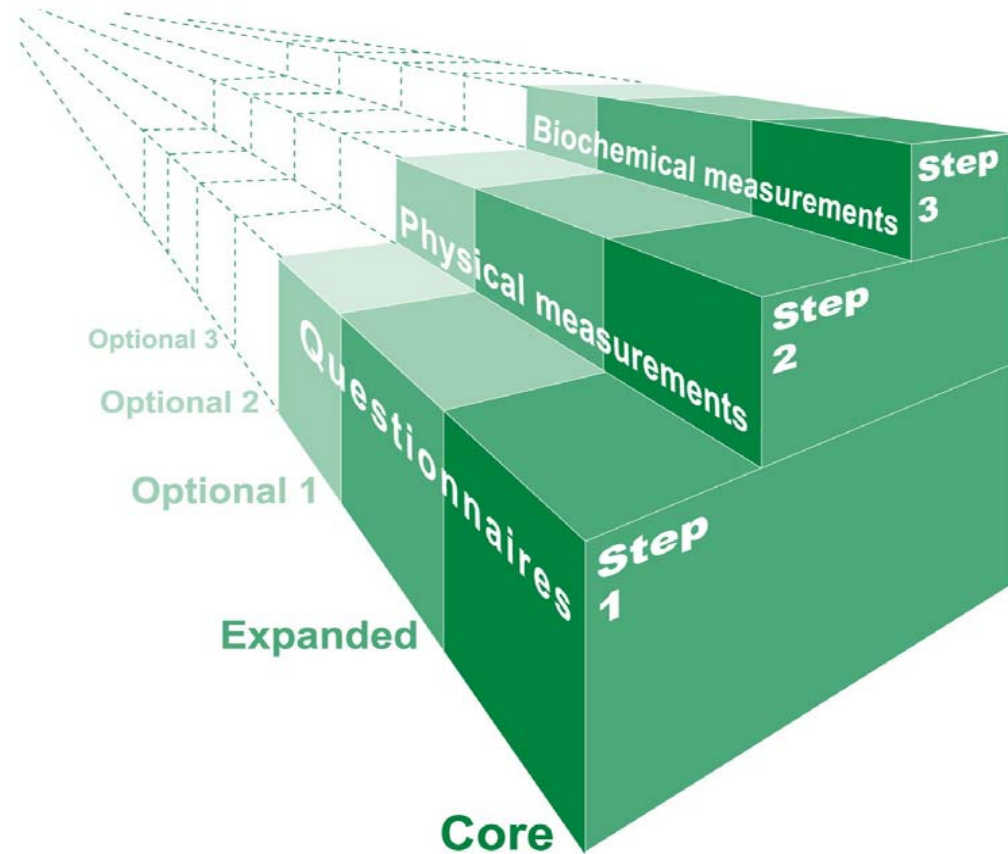
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Optional modules

- Mental health
- Violence and injury
- Oral health



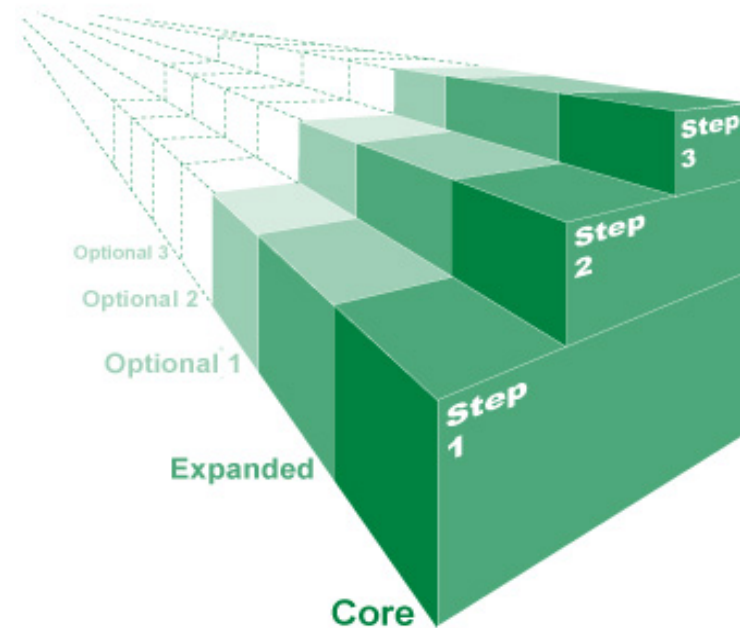
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Why a STEPwise framework to surveillance?

- Standard methods and tools, but also
- Flexible for adaptation to cultural and local needs
- Simple
- Hierarchical
- Can add on to existing systems



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STEPS methods – recommendations

- Targets a scientific sample of adults aged 25 – 64
- Household surveys conducted using trained interviewers for STEP 1 (questionnaire) and STEP 2 (physical measures)
- Clinic based for STEP 3 (biochemical measures)
- Countries should at least do core questions STEP 1 and 2
- Repeat surveys every 2-3 years

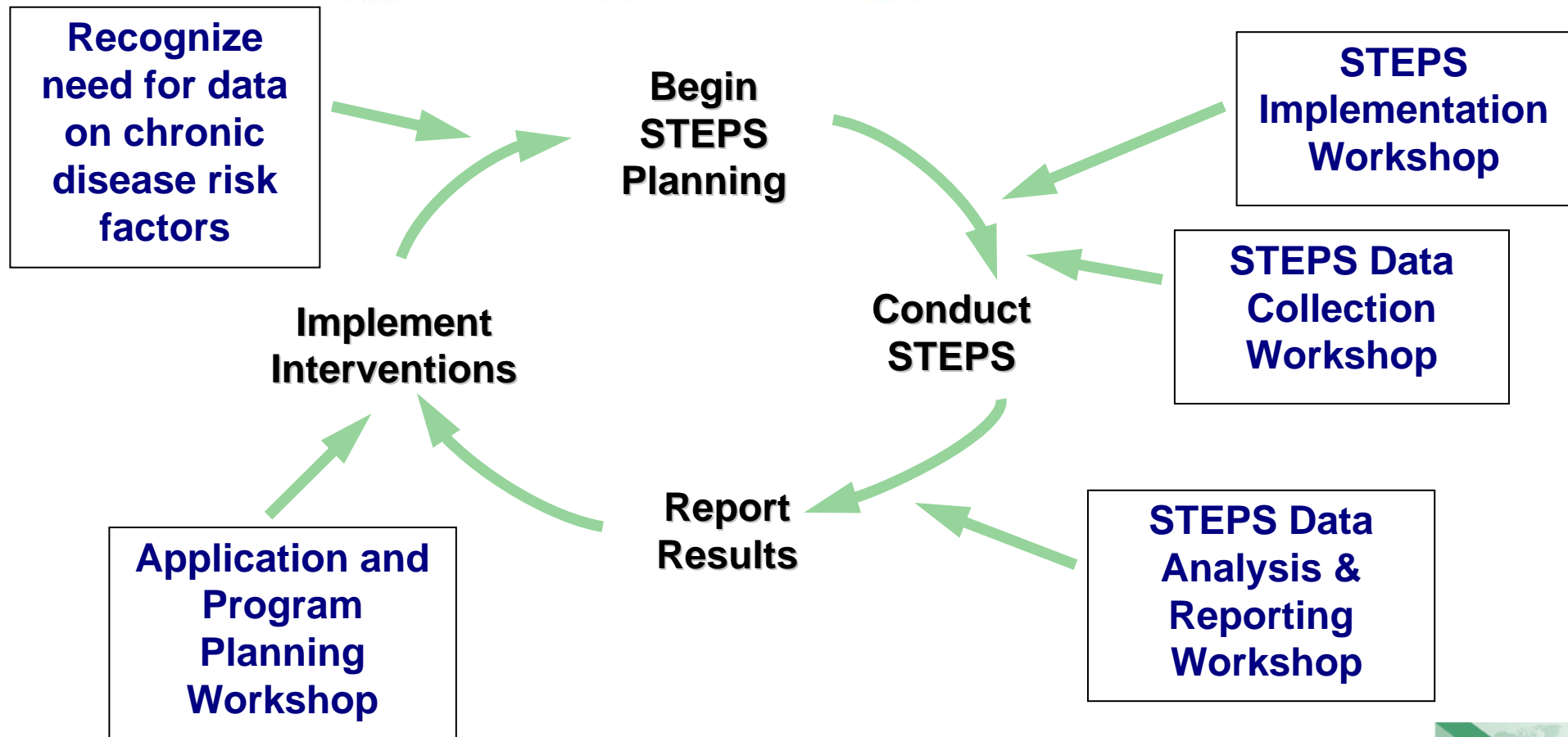


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STEPS methods – The Surveillance Loop



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STEPS methods – the workshops

- STEPS implementation workshop
 - Overview, proposal, preparation, roles, sampling, tools
- STEPS data collection workshop
 - Field work procedures
- STEPS data analysis and reporting workshop
 - EpilInfo training, data management, result interpretation, report writing
- Application and planning workshop
 - Intervention planning, policies



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Côte d'Ivoire – a country example (1)

- STEPS implementation workshop, Benin, July 2004, including data collection
- Field work, Sept – Oct 2005
 - ◆ Sub-national: two regions in the south of the country
 - ◆ n=4,530
 - ◆ Core and expanded STEP 1 and 2, plus violence and injury module
 - ◆ No STEP 3 measurements



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Côte d'Ivoire – a country example (2)

- STEPS data management, analysis and reporting workshop, Seychelles, Nov 2005
- Publication of report, July 2006



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Other country examples

- **Iraq 2006:** STEP 3 in the household
- **Congo 2004:** data collection only in Brazzaville
- **Nepal:** 2003:sub-national (urban, Kathmandu),
2005:sub-national (rural, three districts),
2007:national
- **St. Kitts and Nevis:** sub-sample for STEP 3



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Status of STEPS Implementation

Regions	N° Countries STEPS active (105)	N°Countries STEPS completed (47)
AFR	46	15
AMR	13	2
EMR	13	8
SEAR	10	9
WPR	23	13

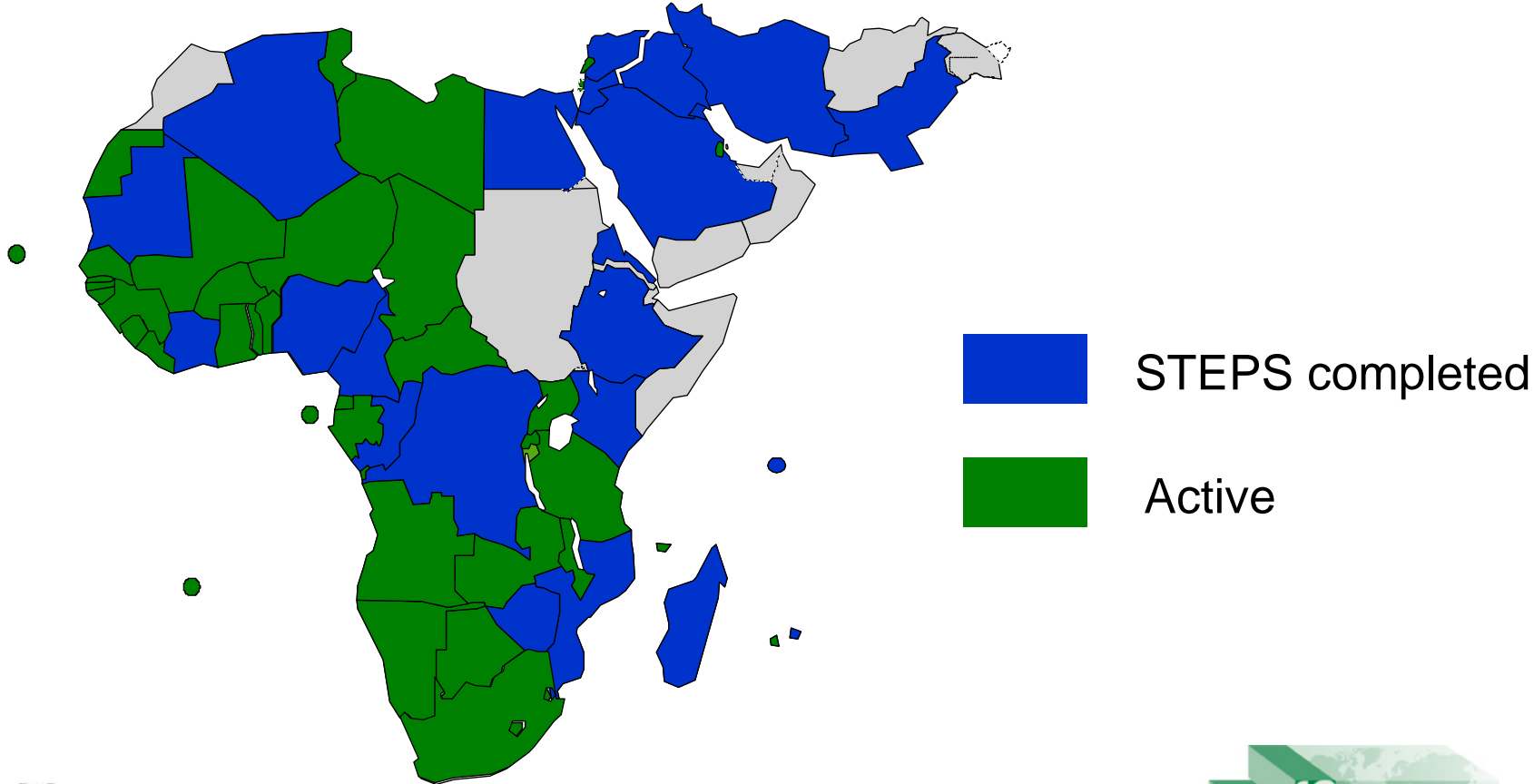


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STEPS country status: AFR + EMR

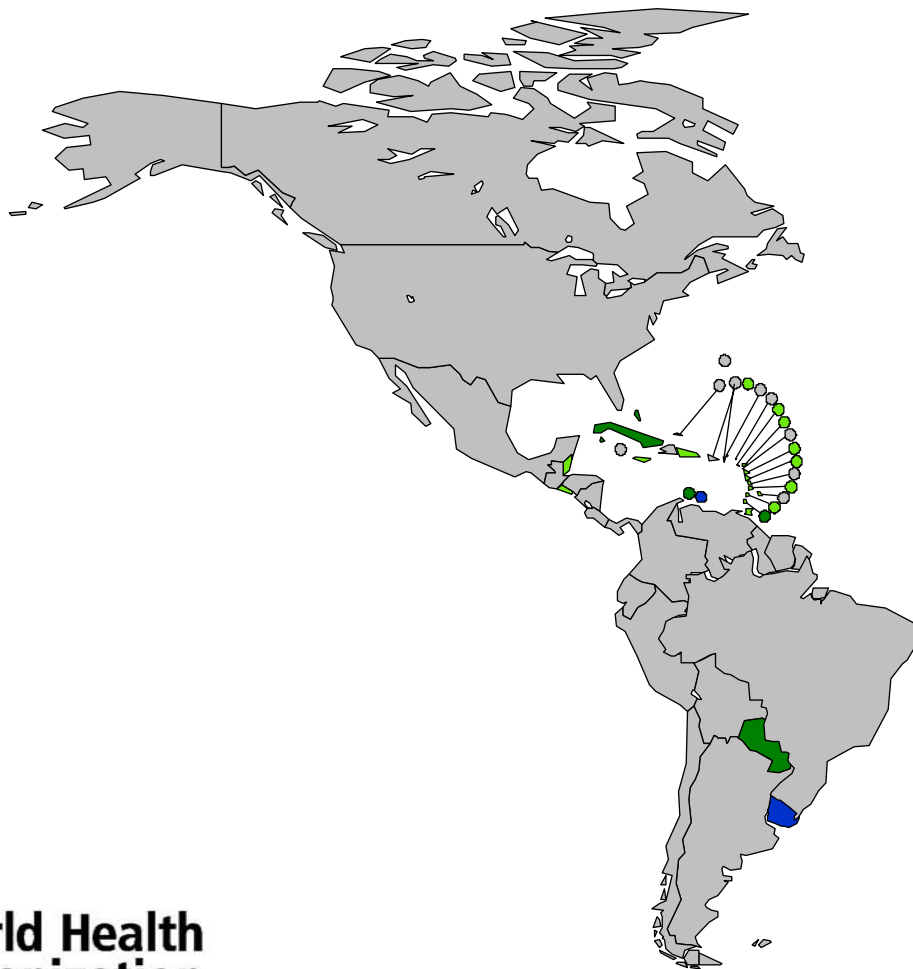


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STEPS country status: AMR

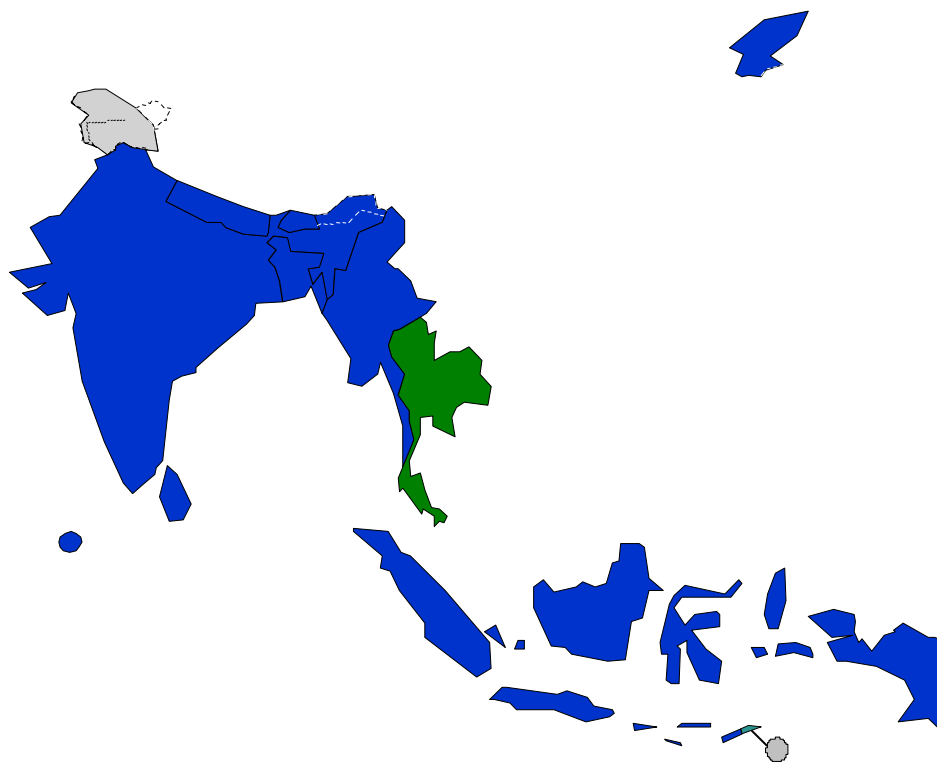


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STEPS country status: SEAR

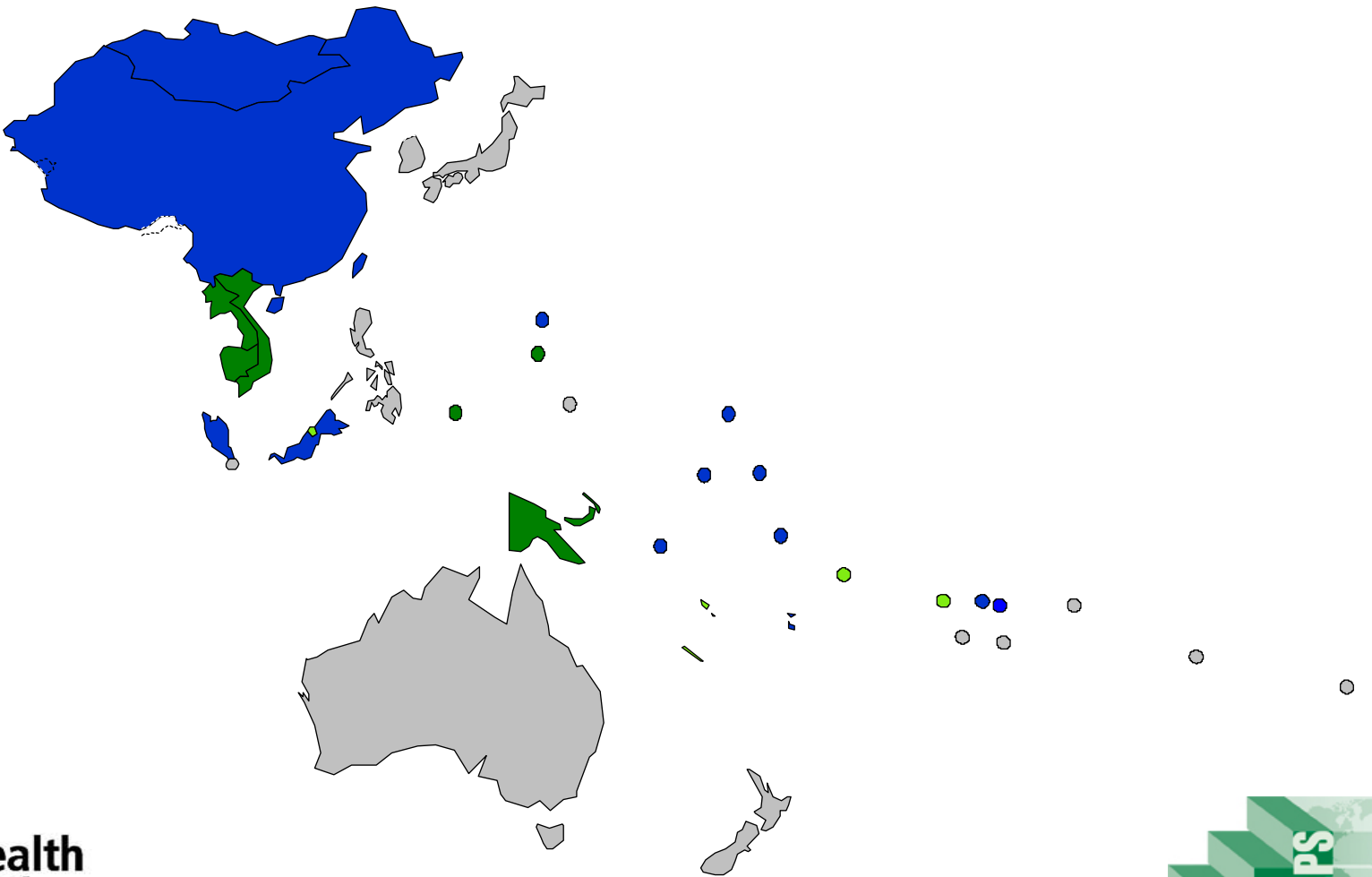


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STEPS country status: WPR



Estimated costs for a STEPS survey (in US \$)

- The average cost of doing a STEPS survey per participant is estimated to be:
 - ◆ \$5 - \$15 for STEPS 1 and 2
 - ◆ \$10 - \$25 for doing all three STEPS.



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Costs per participant for selected STEPS surveys

STEP 1 & 2:

■ Congo	\$5.60
■ Côte d'Ivoire	\$1.20
■ Ethiopia	\$2.40
■ Grenada	\$11.00
■ India	\$7.50
■ Maldives	\$12.50
■ Nepal	\$10.00

STEP 1, 2 & 3:

■ Botswana	\$9.50
■ IR Iran	\$12.00
■ Saint Kitts and Nevis	\$18.00
■ Swaziland	\$8.80
■ Turks & Caicos Islands	\$15.00



Website and contact

STEPS website:

<http://www.who.int/chp/steps/en/>

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