

## Terms of reference

### Measles and rubella vaccination coverage after the intensified immunization activities in **Country, year**

#### A. Background

In 2007, PAHO Member States passed a resolution to verify and document the interruption of endemic measles and rubella virus transmission in the Americas. Progress in the documentation and verification of the elimination of measles, rubella, and congenital rubella syndrome (CRS) in the Americas will be presented to the Sanitary Pan American Conference in September 2012. Although **country** introduced the combined measles and rubella vaccine in 2008 after a nationwide campaign, it continues to face several challenges for verification of measles, rubella and CRS elimination, including weak surveillance and low routine immunization coverage with measles-rubella vaccine. As a result, from April to June 2012, The **country** Ministry of Health implemented nationwide activities that are considered essential for verifying and maintaining measles, rubella and CRS elimination, including: 1) a nationwide measles-rubella (and polio) mass vaccination activity targeting children aged 9 months to 9 years; 2) active community-based and institutional surveillance for measles, rubella and CRS cases; and 3) retrospective review of hospital records for CRS cases.

After the completion of the vaccination activities, a measles and rubella vaccination coverage survey will be conducted. Information on vaccine coverage will permit the MOH, PAHO, and CDC to evaluate the success of the recent measles, rubella vaccination activities. In addition, it is one of the activities required to provide documentation for the process of verification of measles, rubella, and CRS elimination from **country** and the Americas.

The coverage survey will be carried out country-wide. A stratified cluster sampling design, with selection of households through simple random sampling at the final stage, will provide a population-based probability sample of households. **country** will be stratified into four geographic regions including 2 or 3 departments each, and Capital (table 1). This will ensure that results will be representative of each region as well as the entire country.

Table 1. **Regions**

<b>Region/strata</b>

A total of 40 enumeration areas (EA) will be randomly selected from each region, and 40 households will be randomly selected from each EA. In summary, 1600 households per region

will be selected. Interview teams will visit all selected households and interview all those having a child aged 1 to 9 year. Verbal consent will be obtained from all households.

## **B. Objectives**

The primary objective of the survey is to estimate measles and rubella (MR) vaccination coverage from the mass immunization activities targeted to children 9 months – 9 years of age in April-June 2012.

Specific objectives:

1. Estimate MR vaccination coverage for 2 age-groups (1-4 years and 5-9 years) in each of the **four regions and Capital** as well as nationally
2. Assess population awareness of the vaccination campaign conducted in 2012
3. Determine the reasons for non-vaccination in order to address them in future activities
4. Assess whether demographic and socio-economic characteristics of the mother (or responsible person at household) influence vaccination during the campaign

## **C. Activities**

The **Agency** will be responsible for the following activities:

- Hiring interviewers and supervisors for the coverage survey
- Provide a venue for training of field staff
- Organize and oversee field logistics (including transportation, accommodations, and payment of field staff).
- Renting/providing vehicles for transportation of interviewers and supervisors. This includes vehicle maintenance, fuel and oil.
- Prepare letter of introduction for field supervisors for each cluster, and notify selected clusters in advance of survey.
- Provide field supplies including phone cards
- Data collection using electronic devices **provided by CDC**
- Supervising teams to ensure they follow survey methodology and provide completed survey forms

### *Selection of interviewers and supervisors*

Interviewers should be experienced in household surveys and have prior experience in administering questionnaires. Interviewers should have a good record of completing interviews and be courteous to people while interviewing them.

Supervisors should have prior experience in survey administration and supervision of field work. They should also have a good record in checking questionnaires for completion and ensuring completed surveys from their team members. Supervisors should also ensure that their teams follow the appropriate methodology in selecting households.

### *Data collection*

Interviewers will collect the data which will be checked for quality control at multiple stages. The first stage of quality control is by the interviewers themselves. Adequate training and working in pairs (2 member teams) will minimize the risk of procedural errors. The second level of control is the local supervisor for each cluster. During data collection, field supervisors will ensure proper sampling and interviewing through daily periodic spot checks in the course of data gathering. Local supervisors will collect all completed interview forms and comprehensively check work (for missing data and/or inconsistencies) at the end of each day's field work. The third level of control is the project coordinator/national supervisors. They will review forms to ensure that 1) the correct number of clusters has been surveyed, 2) the correct number of children has been surveyed, 3) the age-eligibility requirements of each child have been met, and 4) there are no blanks or partially completed forms.

### *Survey timeline*

Data collection will require approximately 40 days in order to be completed, depending on availability of transportation and weather-related constraints (i.e. the start of the rainy season). Training of interviewers and supervisors will be for 4 days before the start of data collection.

## **D. Expected results**

1. Beginning of survey (July 16, 2012):
  - a. Availability of complete teams to start the data collection
  - b. Preparation of a work plan with detailed itinerary
  - c. Vehicles are available for transportation of field teams
2. Mid-survey (August 10, 2012) :
  - a. Completion of data collection in half (n=100) of the selected enumeration areas
  - b. Interviewers provide completed interviews as documented in the data transferred into server through the electronic data collection devices
3. End of Survey (September 1, 2012): Completed interview forms transmitted to server designed for this purpose.

## **E. Payment System**

The independent consultant will be paid 33% of the total cost upon submission of work plan with detailed itinerary, availability and finalizing the training of interviewers and supervisors to start data collection. Another 33% will be paid at the middle of the survey period upon provision of expected results defined above for mid-survey, and the remaining 34% at the end of the survey upon completion of data collection and transmission of completed survey interviews.