Call for Expressions of Interest

Deadline for application: 01 May 2015

Background:

Since the early 1990s WHO has provided guidance to Member States, partner agencies and institutions on methods for measuring immunization coverage through surveys. In 2013, IVB began a review and revision of coverage survey methods and materials and has established a working group consisting of WHO staff and external experts to provide guidance and assistance in conducting this review and revision. During 2014 several revisions to the methodology were identified and revised draft guidelines have been subsequently prepared and circulated for comment. There is now a need to develop accompanying tools to facilitate data management, analysis, presentation and interpretation of the data resulting from the surveys. The tools are intended to be used by statisticians and epidemiologist to analyse the data, by data managers for data entry and cleaning and by programmers for further modifications and additional analysis.

The Terms of Reference for the contract are as follows:

- Develop a sample survey dataset for software testing, delivered in comma separated value (CSV), Stata, SPSS, R and SAS readable formats.
- Develop draft documents for software users and programmers that describe the software, how it can be used, the system requirements and limitations, considerations for data set design, and advantages of different software packages.
- Develop 6 Stata software modules and 6 R software modules to do the following tasks:

  1) Module to describe the survey sample dataset: In each geographic or administrative stratum:
     i. Expected vs. Observed clusters/HH/respondents
        ("expected" figures come from survey design and "observed" come from survey dataset)
     ii. Demographics of eligible & completed respondents

  2) Module that conducts basic coverage analyses, for each stratum, and for aggregated strata
     i. Crude coverage, by antigen and dose, by source of info, by time of survey
     ii. Fully vaccinated, not vaccinated
     iii. Dropout rates
     iv. Comparison of vaccination coverage to important programmatic thresholds – classification with well-defined criterion
     v. Reasons for not vaccinating
     vi. Sources of info about vaccination
     vii. Clusters with alarmingly-low vaccination in the sample
     viii. Design effect and ICC for relevant outcomes

  3) Module that does valid and timely dose analysis (dependent on having many records with dates from card or register)

  4) Module to connect to dataset and assess suitability for requested analyses:
     ix. Reads user inputs about the survey, the vaccination schedule
     x. Reads the survey dataset
     xi. Writes out empty table shells for the requested analyses
     xii. Identifies any concerns about the suitability of the dataset to conduct those analyses (e.g., values out of range, dates nonsensical, etc.)
5) Module that conducts formal comparisons of coverage levels (within a survey)
   i. Comparing coverage by demographic or administrative subgroups
   ii. Comparing coverage between different locations in the same survey

6) Module that creates figures consistent with those described in the WHO cluster survey reference manual
   i. Unweighted cluster-level sample coverage
   ii. Estimated coverage confidence intervals

WHO/EPI is inviting proposals for the execution of the above work by a reputable institution, company or individual

Requirements:

- Proven experience in statistical programme development with Stata and R software.
- Proven experience in survey data analysis and presentation of results.
- Familiarity with immunization coverage surveys.
- Proven capacity to develop user guides and documentation.

Deliverables on the end project:

- Sample survey dataset.
- 6 software modules in Stata and R for data analysis.
- Accompanied documentation and user guides for software modules.

Timeline:

- The work should be completed by mid-December 2015.

The proposal and all correspondence and documents shall be prepared and submitted in the English language.

The proposal should be concisely presented and structured to include the following information:

Approach/Methodology
Proposed timeline
Financial proposal

The bidder shall submit the complete proposal to WHO in writing no later than 17:00 hrs Geneva time on 1 May 2015, by email, to the following address: gacidobom@who.int and in copy to cruzca@who.int.