Template for Short-term Opportunities

Stellis CVs of interested applicants must be sent to: Elaine Borghi, borghie@who.int

1. Division/Dept/Unit	2. Supervisor
Healthier Populations Division/NFS/MNF	*Elaine Borghi*
3. Contract dates	**4. Contract type**
31 October 2022 to 13 January 2023	*Consultancy*

5. Location

Off site: _Home-based.

Acceptable time difference if in off-site location: _____ +/- _6_hours

6. Travel

N/A

7. Remuneration and budget *(travel costs excluded)* – to note that a retiree cannot be offered a contract at a level higher than the grade held upon retirement

Remuneration: Band level D – USD 626–720 per day

8. Purpose of Temporary appointment/Consultant contract

Objectives of the Programme:

The second Sustainable Development Goal (SDG) calls for achieving, by 2025, the internationally agreed targets for reduction of stunting and wasting and halt in overweight in children under 5 years of age and 2030 targets have also been proposed recently by UNICEF and WHO. Largely infrequent health and nutrition surveys in many countries make monitoring and assessment of the progress towards these SDGs challenging. For example, if the most recent stunting survey was 5 (or more) years ago, determining that an SGD has been met based on the last survey may be inaccurate, especially if other information about the country or region suggests otherwise.

The World Health Organization (WHO), UNICEF, and the World Bank (WB) established the Joint Malnutrition Working Group Estimates (JME WG). The JME WG started an extensive data harmonization process, allowing the three agencies to produce a dataset with all approved population-based surveys, such as Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), and Living Standards Measurement Surveys (LSMS), while other data are from administrative or national nutritional surveillance programs. This dataset is currently used to produce regional and global estimates of childhood stunting, overweight, wasting, severe wasting, and underweight. These child malnutrition estimates are regularly updated and freely accessible to the public and have become a global public good with high and increasing demand.

Even with the expanse of data the JME WG has obtained data gaps remain due to the lack of consistent high-quality malnutrition estimates at the country level. As a substitute for population-based surveys, model-based estimates use current information about a country's socio-economic conditions along with the trends of malnutrition indicators in the region to predict current values. Model-based estimates can be used to fill in current data gaps and facilitate country-level tracking and assessment of trajectory towards goals. Modelling provides smoothed trends by borrowing information from data-rich periods to those where data are scarce and from data-rich countries to those with similar settings with limited data availability.

There are advantages and disadvantages in using model-based estimates. Whereas model-based estimates can have the advantage of smoothing out artificial variations and compensating for lack of data, discrepancies

between model and survey estimates must be explained well and in a transparent way. It is important that countries recognize and accept model-based estimates. Furthermore, high-quality data every 3 to 5 years from household surveys and similar sources are needed to ensure that the modelled results are of optimal quality.

Descriptions of Duties (staff contract) or Deliverables (consultancy)

- Apply the modelling procedure and to the latest version of the join child malnutrition database.
- Compare the new country-level model results with current country-level estimates produced by the JME WG. Validate the properties of the estimates using cross-validation, including the sex-specific estimates.
- Present the results of the of the new model to the JME WG and modify as needed.
- Prepare documentation for dissemination of the details of the methodology. This includes a submitting a publication explaining the research and the development of a slide-deck.
- Present the details of the methodology to country statistical officers and nutrition policy professionals (as needed).
- Present the details of the proposed model and recording a PPT video to be shared with countries and publicly.
- Report summarizing findings on gender inequalities in the form of a manuscript draft.

REQUIRED QUALIFICATIONS:

Education:

Essential: Minimum an advanced university degree in Statistics, Epidemiology or Public Health.

Desirable: PhD in Statistics, epidemiology or Public Health

Experience

Essential: Over 15 years of experience with modelling health-related data, from which at least five years on modelling global health estimates.

Desirable: Experience with modelling global nutrition indicator estimates; peer-reviewed work on related area.

Use of Language Skills

- **Essential**: Expert knowledge of English.

Date : 12/10/2022