



Uganda USAID ICYD OVC DHIS2 DATABASE PLATFORM

Job Description

The Bantwana Initiative of World Education Inc. (WEI/Bantwana) is seeking a sub contractor to create an OVC tracker database on DHIS2 for USAID's Integrated Children and Youth Development Activity (ICYD) in Uganda. The USAID Integrated Child and Youth Development Activity (USAID ICYD Activity) aims to improve learning outcomes, advance HIV epidemic control in Uganda, and ensure that children and youth have the opportunity to lead resilient, healthy and productive lives. The USAID ICYD Activity will deliver critical HIV/GBV/violence prevention and response services to 169,000 children and youth and their families in communities, clinics, and schools across 29 districts in Year 1. USAID's ICYD Activity is led by Education Development Center, with WEI/Bantwana as the OVC lead in partnership with four national organizations: IDI, UWESO, Youth Alive, and ACORD.

Purpose and objectives:

The purpose of the assignment is to create an OVC tracker database on DHIS2 for the ICYD OVC program. To enable hosts and users to interface with an M&E OVC platform that will enable them to add new indicators as they come online, monitor project implementation, track progress and data collection, share trends, provide an interactive Dashboard, GIS and data management and generate reports across 29 districts managed by 4 National Partners in Central/West Nile, Western, East Central, and Northern regions. The consultant/sub-contractor will be required to write programming code, to create software, web applications, and other database processes. A sub-contract for the database server and maintenance costs will be managed by ICYD Prime, EDC, through a separate TOR.

The stages and estimated timeframes of the assignment are listed below

Stages		Estimated Timeframe
1.	Initial Analysis	Early January 2021
2.	System Design and Development	January 2021
3.	Testing and Refinement	February 2021
4.	Deployment	Mid-February-1 March 2021
5.	Staff Training and Capacity Building	March 2021

1. Initial Analysis

WEI/Bantwana has built and is currently using the KoboCollect online database and will continue to use this database through the ICYD database development period. In addition to the development of the database, the sub-contractor will build and support the process for migrating OVC information currently stored within the KoboCollect online system to the new ICYD database using the DHIS2 platform. The sub-contractor will conduct a detailed analysis of ICYD OVC data and reporting needs for MERS indicators, USAID custom indicators, and project custom indicators. This will include reviewing and analyzing data collection forms (i.e. enrolment forms, risk assessment forms, service monitoring forms, case updates, and graduation benchmarks). Based on this analysis, the sub-contractor and WEI/B will

agree on a strategy that details the suggested system requirements (i.e. online/offline data entry, user structure and roles, etc.).

2. System Design and Development

Based on the above analysis, the sub-contractor will model and build out the structure of the database which will include:

- Customize the open-source DHIS2 M&E platform and align it to ICYD's OVC processes and procedures.
- Configure the hierarchy of ICYD by its partners, districts, health facility and all other level of intervention.
- Code the data elements and indicators for interoperability purpose, and translations;
- Customize all the ICYD OVC data collection tools into the DHIS2 database
- Design data entry forms and customize the database with the country determined data elements, indicators, organization units, user roles;
- Configure the GIS module to visualize the progress of activities and trends of different project interventions across units on GIS maps.
- Develop a data import module in DHIS 2 for the existing Excel or Kobo collect database;
- Set quality assurance parameters (e.g., approval and acceptance of data) and data validation rules;
- Develop an automated program for reports and dashboards, with the possibility of linking to the data reporting tool in Excel;
- Determine and develop various types of reporting content, formats, and frequency based on indicator plan and donor requirements.
- Configure the data visualizer for the database to generate the required reports.
- Configure mobile (light and smartphone) data entry modules to ensure data entry via mobile devices.
- Configure SMS reminders as required.
- Configure the user rights module which can later be used to assign the access of database to the users as per their role in the organization.
- Configure the data administration module to ensure the proper administration of the database.

3. Testing and Refinement

Vulnerability testing of all software code must be performed before going live. The consultant will ensure that all features of the designed database are tested and refined to ensure maximum performance and optimal usability. This will include user based testing of the system in multiple iterations (as necessary) to ensure functionality optimal database performance. All features should be tested from data entry to report and dashboards outputs. Additionally, all user types should be testing the system for functionality. A comprehensive back-up system must be included in the end product, such that data resources are secure and replicated at regular intervals. This will also include developing a user manual detailing definitions and "how-to's" for each user type, including a specific module for administrators.

4. Deployment

The sub-contractor will deploy the system by “going live” ensuring that all users are able to login and access / use the database. The consultant will provide assistance during the deployment including any further tweaking for maximum performance (as necessary).

5. Staff Training and Capacity Building (This is illustrative and will be discussed to flesh out details with WEI/B and the sub-contractor)

The consultant will train and mentor key staff to properly develop, use, update and make changes to the database system. The consultant will ensure that all staff are able to navigate the system with the User Manual. This may include:

- Develop training materials for the core team
- Deliver training on customization, system management, and administration;
- Build the capacity of the ICYD M&E and IT staff on development/customization, e.g., warehousing; as well as assisting in the development of client-based data systems, particularly at the community level, using DHIS2 tracker application

6. Technical Support

A technical assistance and maintenance plan that will be part of the contract developed with EDC. This will include continual tweaks where necessary, and “on-demand” problem solving when there is an issue with the system, including:

- Enable OVC data analysis, troubleshooting, legacy data import and transition and user training
- Maintain and implement data storage and repository systems including through cleaning, updating and user training in readiness for ultimate hand-over to ICYD

Additional Requirements

- **Source Code/Design: Complete** source code, design of the final application and database will be the property of WEI/Bantwana. The consultant will hand over all required materials to WEI/Bantwana.
- **Ownership and intellectual property:** WEI/Bantwana shall acquire the ownership of all assignment deliverables in their tangible form (both hard and soft copies, including the customized source code) and the right to use them as required. The deliverables in any circumstances should not be published or used by the consultant without the permission of WEI/Bantwana.
- **Confidentiality:** Due to the sensitivity of programming, the Consultant/sub-contractor must sign a confidentiality agreement.
- **How to apply:** Any individual consultant or a firm with practical DHIS2 implementation experience should submit a **Technical Proposal** (max 5 pages excluding attachments/appendices) and a **Detailed Budget**. This will be finalized with WEI/Bantwana and the potential sub-contractor.

Illustrative points to include in the technical proposal:

- A description of your experience developing the DHIS2 platform/company background (including CVs of proposed consultants and lead consultant to work on this) -
- A list of 3 references of clients that the consultant has worked with on a similar assignment
- A description of your proposed method for completing the project, including planning sessions, an outline of the key steps, and the sequence of the work
- Clear and detailed estimated timeframe to complete the tasks. It should be clearly identified as to when WEI/Bantwana can expect to see the progress of individual deliverables within this timeframe (please use a Gantt Chart and organize by the stages in the table above)
- 1-2 examples of databases that have previously been designed/implemented
- Any other comment you care to provide

Required qualifications of lead consultant(s):

- Degree in social science, statistics, international development; experience or background in epidemiology, public health, health information management, biostatistics or a related discipline
- Demonstrated experience in database design, development, and follow-up support, preferably in DHIS2
- Demonstrated experience working in complex environments and tailoring technological solutions to a specific project
- Ugandan nationals and Uganda based firms strongly urged to apply

Criteria for Evaluation of Responses: WEI/Bantwana will evaluate the responses to this based on the consultants' or firms' ability to provide a general overview of the services you or your organization provided in the past including number of years in the business, number of relevant professional consultancies, and experience of working with clients on a similar assignment, preferably in DHIS2. Both the submitted technical and financial proposal will be evaluated for cost effectiveness and quality.

DEADLINE: Applications must be emailed to BantwanaICYD@ug.worlded.org and received by 8 January, 2021