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Consultancy Opportunity: Designing a Rwandan version of the pregnancy wheel

Background

At IntraHealth, we are a global team of creative, committed humanitarians on a mission. We are advocates, technologists, health workers, and communicators. We are passionate and diverse; and are united in our belief that everyone everywhere should have the health care they need to thrive. That's why we work every day to improve the performance of health workers around the world and strengthen the systems in which they work.

For over 40 years in over 100 countries, IntraHealth has partnered with local communities to make sure health workers are present where they're needed most, ready to do the job, connected to the technology they need, and safe to do their very best work. Our programs are designed with a deep understanding of and appreciation for the context of human rights, gender equality and discrimination, economic empowerment, and changing populations.

Are you a professional graphic designer with experience in development of web-based applications? This opportunity might be of interest to you.

IntraHealth seeks a professional graphic designer to support the development of a Rwandan version of the pregnancy wheel and a web application. The USAID Ingobyi Activity is a five-year cooperative agreement to improve the quality of reproductive, maternal, newborn and child health (RMNCH) and malaria services, in a sustainable manner with the goal of reducing infant and maternal mortality in Rwanda. The USAID Ingobyi Activity builds upon the tremendous gains Rwanda has made as well as previous USAID investments in the health sector. USAID Ingobyi Activity aims to contribute to the reduction of infant and maternal mortality and incidence of malaria in Rwanda. The Activity partners with the Government of Rwanda to build on the country's considerable achievements, guided by national health strategies, goals, objectives and data. The Activity is not just building capacity and capability, but aims to achieve shared understanding of the patterns and systemic structures that underlie the health system and where and how to bring about measurable, sustainable improvements.

As a key member of the RMNCH and associated sub-technical working groups, Ingobyi Activity works in close collaboration with the MOH/RBC/MCCH Division and other partners to ensure innovative interventions to improve RMNCH activities are introduced. The rationale for developing Rwanda pregnancy wheel version was approved by the safe motherhood sub-Technical Working Group (TWG) in December 2021 and a core team led by Ingobyi Activity under the coordination of the RBC/MCCH Division was appointed to steer the development of the tool, based on the new national ANC guidelines.

Rationale for developing pregnancy wheel for Rwanda

The WHO quality of care vision is a future where every mother and newborn receive quality care throughout pregnancy, childbirth, and postnatal period. To achieve Every Woman, Every Child vision and the Global Strategy for Women's, Children's, and Adolescents' Health, we need innovative, evidence-based approaches to antenatal care.

The Rwanda Demographic Health Survey (RDHS), 2019-2020, indicates a slight improvement in proportion of women completing at least four antenatal care (4 ANC) visits to 47.2% from 43.9% in 2014-15. Evidence suggests that one way of reducing maternal and early neonatal mortality is by improving the availability, accessibility, quality and use of services, including treatment of complications that arise during pregnancy, childbirth and in the postpartum period. It has been established that by implementing timely and appropriate evidence-based practices, ANC can save lives, as it provides opportunities to communicate with, and support, women, families, and communities at a critical time during a woman's life.

Estimating gestational age (GA) and estimated day of delivery (EDD) are critical components of care for all pregnant clients. The safe and effective delivery of timely interventions in pregnancy depend on having a correct understanding of a pregnancy's GA. Pregnancy wheel is a tool that helps health providers calculate gestational age and plan for subsequent ANC visits, thus potentially improving ANC standard visits. Accurate and precise GA estimation contributes to better diagnosis of pre-term birth or post-term pregnancy and can facilitate birth preparedness and complication readiness by helping clients to estimate timing of their birth.

USAID Ingobyi Activity has learned over the years that absence of pregnant wheels applicable to the Rwandan context and poor planning of ANC visits in health facilities are key contributing factors for low coverage of the WHO recommended four (now eight) ANC standard visits among pregnant women. Aside from not being easily available, the existing pregnancy wheels are not suitable to the Rwanda setting. To address this critical need, Ingobyi Activity is planning to support MoH/RBC/MCCH Division to design and produce a national Rwandan pregnancy wheel that will be availed to health providers in health facilities across the country.

IntraHealth International, through USAID Ingobyi Activity, is seeking a consultant with extensive experience in graphic and web-application design to support the development of a Rwandan version of the pregnancy wheel to be produced in both printed and digital versions to guide health care providers to estimate the GA of clients and plan next ANC visits as recommended in new Rwandan ANC Guidelines (2020).

Scope of work

The consultant will be expected to design a soft copy of pregnancy wheel/dial (to be printed in hard copy) and develop a user-centered mobile application (both IOS & Android) version in Kinyarwanda and English, with offline and online capabilities that will aid both health care providers and family/pregnant women in tracking gestational age and estimating delivery date. The consultant will support conceptualization, development, design, and testing of both printed and mobile application versions of the draft pregnancy wheel in consultation with RBC/MCCH Division and Ingobyi Activity staff. The incumbent will use a variety of advanced software development techniques, and tools to develop a user-friendly and interactive pregnancy wheel/dial for Rwandan health care providers/pregnant women. The consultant will develop a printable and a mobile application versions, test and demonstrate the tool to users, and incorporate feedback. The consultant will use leading front-end tools like Angular (latest stable version at a time) and ReactJS, or others as applicable, such as Flutter, Kotlin, and Swift, among others.

This assignment will be done in consultation with Ingobyi Activity and RBC/MCCH Division teams to ensure that the software is securely deployed on a server and ready for effective and seamless usage. Specific activities include the following:

- Participate in an introductory meeting with Ingobyi Activity's maternal health technical team to learn more about the assignment, clarify task and expectations.
- Conduct desk review of available and new evidence on pregnancy wheel to inform design of Rwandan version of the pregnancy wheel.
- Submit an inception report outlining the roadmap for developing the soft copy and offline-online mobile application of the pregnancy wheel.
- Recommend appropriate software and hardware required to design and launch the application.
- Design printable copy of the pregnancy wheel for Rwanda.
- Design mobile application version of the pregnancy wheel.
- Present draft of the pregnancy wheel to the Safe Motherhood (SMH) sub-Technical Working Group for inputs.
- Design and submit draft and final user-guides based on feedback from the Safe Motherhood (SMH) sub-Technical Working Group.
- Test mobile application version of the pregnancy wheel and incorporate user feedback.
- Provide training for at least 10 users either remotely or in person.
- Present final printable and mobile application versions of Rwanda pregnancy wheel.
- Undertake any required upgrades/updates during the first 1 year of use.
- Undertake any required maintenance and troubleshooting during the first year of use either remotely or on site.

Required qualification/knowledge, experience, and abilities

Desired applicant is expected to possess or meet the following qualifications and requirements.

Requirements:

The consultant should be based in Rwanda (company/individual must provide its local address).

Qualifications and experience:

- Consultant must provide evidence of having a staff with at least a bachelor's degree in software engineering, mobile application development, mobile computing, computer science or a similar programming field of study.
- Demonstrate mastery of mobile-first approach, use the leading front-end tools like Angular (latest stable version at a time) or ReactJS.
- Proven experience using mobile application development tools like Flutter, Kotlin, Swift, etc.
- Experience in programming languages such as PostgreSQL or other NoSQL databases and excellent knowledge of front-end tools (CSS frameworks, HTML 5, and JavaScript frameworks).
- Knowledge of UX and UI.
- Strong experience in frameworks, including CODEIGNITER, NodeJs, ReactJs, Angular 6.
- Demonstrated experience in database management systems, such as MySQL, MongoDB, PL/SQL, and oracle.
- Experience in digital health solutions, especially with mobile technology.
- Consultant must show samples of both completed mobile application and electronic designed tools.
- Prior experience with USAID funded projects and collaboration/engagement with MOH/RBC will be an added advantage.

- Knowledge of both English and Kinyarwanda.

Expected deliverables

The expected deliverables for this assignment include the following:

- Draft printable version of the pregnancy wheel
- Draft mobile application version of the pregnancy wheel for testing
- Revised/final printable and mobile application versions of the pregnancy wheel ready for use
- User guide for the mobile application version of the pregnancy wheel
- Orientation of staff on use of the mobile application version of the pregnancy wheel
- Maintenance of the mobile application version of the pregnancy wheel for at least one year after deployment

Supervision

The consultant will work closely with RBC/MCCH Division and Ingobyi Activity under the direct supervision of the Maternal Health Advisor.

Timeframe

The estimated level of effort for this work is 30 working days and is expected to be implemented between June and August 2022. The draft versions of both tools for testing should be available by July 31st, 2022, while revised and final versions should be available by August 31st, 2022. The consultant will develop a user guide and provide orientation to project staff on use of the mobile application and address any arising issues within the first year of use.

#	Task	Working days
1	Participate in an introductory meeting with Ingobyi Activity's maternal health technical team to learn more about the assignment, clarify task and expectations.	1
2	Prepare and submit an inception report outlining the roadmap for developing the soft copy and offline-online mobile application of the pregnancy wheel.	2
3	Conduct desk review of available and new evidence on pregnancy wheel to inform design of Rwandan version of the pregnancy wheel	2
4	Design printable copy of the pregnancy wheel for Rwanda; Design mobile application version of the pregnancy wheel	19
5	Present draft of the pregnancy wheel to the Safe Motherhood (SMH) sub-Technical Working Group for inputs.	1
6	Incorporate inputs from SMH Sub TWG in the draft pregnancy wheel and final user-guides and submit final drafts.	2
7	Test mobile application version of the pregnancy wheel and incorporate user feedback.	1
8	Provide training for at least 10 users.	1
9	Present final printable and mobile application versions of Rwanda pregnancy wheel to the Safe Motherhood (SMH) sub-Technical Working Group.	1
	Total number of working days	30

Consultancy fees

Service fees will be negotiated with best candidate and should not exceed local rates of IntraHealth International Rwanda and will be subjected to taxes. The service fees will be charged based on an agreed daily rate and the time necessary to complete the assignment in a professional and timely manner. A contract will be established between IntraHealth and selected consultant. IntraHealth reserves its rights to cancel this invitation for designing services at any time or to not award service contract in case the organization is not satisfied with quality of applications or for whatever reason.

Selection criteria

Applications will be assessed on financial reasonableness and technical considerations. Maximum scores for technical and financial applications will be 70% and 30%, respectively as indicated below:

#	Evaluation criteria	Max points
1	Technical proposal (3 pages maximum)	25
2	Administrative documents - including copies of relevant documents including operating license (registration from RDB), VAT certificate, RRA Tax clearance certificate, proof of using EBM invoice, motivation letter	5
3	Company location	5
4	Company experience: mastery of mobile-first approach, use the leading front-end tools	15
5	Company technical staff qualifications	10
6	Proof of previous completion of similar assignment or development of similar tool/applications	10
7	Financial proposal	30
Total		100 points

How to apply:

Interested applicants are requested to submit electronic copies of their technical and financial proposals (in English), by **June 03rd, 2022, before 5:00pm**, Kigali time to ingobyiprocurement@intrahealth.org with “**Designing pregnancy wheel**” in the subject line.

Application file:

In the proposal, the applicant (individual or firm) should explain how he/she intends to carry out the work and should include the following:

- Updated CV, highlighting relevant qualifications and experience.
- Motivation letter describing the consultant’s experience in similar assignments.
- Contacts of three former clients/referees who can be contacted for reference.
- At least three certificates, one showing their previous experience of developing a mobile application from reputable organizations/institutions within last three years.
- Proposed budget inclusive of applicable taxes and in Rwandan francs (Frw) only.
- Copies of relevant documents including operating licence (registration from RDB), VAT certificate, RRA tax clearance certificate and proof of using EBM invoice.

Summary of Benefits

IntraHealth International is proud to be an equal opportunity employer. All qualified applicants will receive consideration without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law, and requires affirmative action to ensure equality of opportunity in all aspects of employment and consultancies.

Only applicants fulfilling the above requirements will be contacted. If you don't hear from us within one month from the submission deadline, consider your application unsuccessful.