Terms of reference

Final evaluation of project 6070, Dx in a Bx: Improving Lives through Mobile Diagnosis

1.Introduction

Background on funding partner

Fondation Botnar is a Swiss-based foundation established in 2003 whose purpose is to improve the health and wellbeing of children and young people in growing secondary cities around the world. We do this by investing in sustainable solutions, and by connecting and catalysing the work of diverse partners. At Fondation Botnar, we are committed to cultivating and nurturing learning both within and outside of the organization to effectively contribute to the change we want to see.

Background on implementing partner ("grantee")

FIND, established in 2003 as a global non-profit, is dedicated to accelerating the development, evaluation and use of high-quality, affordable diagnostic tests for poverty related diseases, including tuberculosis, malaria, HIV/AIDS, sleeping sickness, hepatitis C, leishmaniasis, Chagas disease, Buruli ulcer, febrile illnesses, and infectious diseases with outbreak potential, such as Ebola. Over the last decade, FIND has partnered in the delivery of 14 new diagnostic tools, including eight for tuberculosis, and has created an enabling environment for numerous others through the provision of specimen banks, reagent development and better market visibility.

FIND also supports better access to new diagnostics through implementation, quality assurance and lab strengthening work. FIND has over 200 partners globally, including research institutes and laboratories, health ministries and national disease control programmes, commercial partners, clinical trial sites, and bilateral and multilateral organizations (especially WHO). To learn more, visit www.finddx.org.

Project description

Despite two decades of progress, in 2015 more than 5.9 million children died before their 5th birthday—20,000 children every day. In addition to the millions of children who die each year, a growing body of evidence suggests that many of the febrile illnesses, including dengue, malaria, and typhoid are associated with long-term cognitive impairments in children, as well as household

indebtedness. Using 2015 as a baseline, there are approximately 800 million clinic visits each year for the evaluation of fever in children in low- and middle-income countries. Around 40% of these visits are due to malaria, but close to 60% of children who have gone to a clinic with a fever remain undiagnosed, and mortality rates for children under 5 remain unacceptably high. These numbers are a consequence of the limited set of tools available to health professionals to diagnose and manage childhood illnesses in settings with limited resources. More than half of these young lives are lost to diseases that could be easily treated – if they were diagnosed promptly. Ideally, frontline health workers in resource-constrained regions should be equipped to perform tests and interpret results in a way that, at a minimum, allows for the identification of malaria that can be treated, to identify common bacterial or parasitic illnesses that respond to antimicrobials, and to differentiate them from self-limited viral illnesses that require no antimicrobial treatment. That this does not yet happen is due to the fact that tests and tools that are currently available to these health workers do not allow for this kind of interpretation. Given the complexity of fever management without appropriate diagnostic tools, health workers are flying blind. There is therefore a dire need for easy-to-use diagnostic tools that can help minimally trained health workers make informed decisions and manage common childhood illnesses.

This project seeks to develop and implement a toolkit – Dx in a Bx – that can be used by frontline health workers to reach, assess and make treatment or triaging decisions for febrile children in resource-limited settings. The tool will combine clinical decision support algorithms (mobile apps) and point-of-care tests (POCTs) for use at the frontline to support fever management in resource limited settings (RLS). The project objectives are to build consensus and generate evidence through clinical studies to support future adoption of these tools in country and to drive R&D for new and improved POCTs for childhood fever management.

Current state of project implementation

Several activities have been completed or are ongoing to build consensus around clinical decision support for RLS, including a target product profile with the World Health Organisation, stakeholder consultations around digital health, and clinical decision support algorithms incorporating POCT results have been developed for two country implementations. These tools are currently being evaluated through clinical studies in West Africa. In addition, several diagnostic products have moved through the diagnostic pipeline (from TPP, assay development, to clinical validation including regulatory submission) to support differential diagnosis of childhood fevers in RLS.

Local partners

The clinical decision support development and evaluation are being conducted with the following implementing partners:

In Burkina Faso:

- Terre des hommes
- Ministry of Health of Burkina Faso specifically the Operation Center to Health Emergencies (CORUS), the Directorate for the Protection of the Population (DPSP), and the Directorate for Health Information Systems (DSIS)

In Senegal :

- Institut Pasteur de Dakar
- Ministry of Health of Senegal specifically the Division for Surveillance, Directorate for Disease Prevention
- Dimagi, Inc.
- IT4LIFE

2.Evaluation objectives and questions

The evaluation pursues the following objectives:

1. To document the funded project, its results, effectiveness and relevance in the wider context.

For the final evaluation, the focus is on documenting how the project was planned and implemented as well as what was achieved including its contribution to the wellbeing of children and young people. Further, the relevance of the project results in the wider context of childhood febrile illness in RLS should be reflected upon.

2. To support the grantee's and foundation's reflection on the implications for scaling and/or integrating the project.

The project has tested its approach in demonstration studies. To make a transition from a study and scientific pilot to a scaled program in practice and/or be integrated into existing approaches, the evaluation should support the reflection on the respective implications for scaling or integration. This should also take into account how the project and possible scaling fits into the Foundation's strategy.

3. To learn about the status of the research carried out in the project, in particular concerning research fairness and equity

Fondation Botnar subscribes to the principles of the Swiss Commission for Research Partnerships with Developing Countries (KFPE) and the Research Fairness Initiative (RFI). It is important for the Foundation that research is fair and equitable, building lasting partnerships and sustainable capacity.

The scientific quality of the research undertaken by grantees is regularly reviewed by external experts in the specific field of each project. Therefore, the final evaluation is <u>not</u> supposed to replicate the research undertaken in the project (e.g., by measuring effects that the product under development may cause among its target groups) or to verify the project's overall scientific quality.

Evaluation questions

1. How was the project[1] planned and implemented?

2. How well did the project intervention fit with existing programs (coherence)?

3. What are the results of the project? did the project achieve its objectives? and what is its relevance in the wider context of childhood febrile illness in RLS?

4. How is the project expected to contribute to childhood febrile illness management and what challenges has it addressed from a clinical and technological perspective?

5. How can its research **inform policies and practices** to improve the quality of services at primary care (e.g. healthcare worker adherence to guidelines, antimicrobial use, POCT use) and young people's well-being in low income countries? What steps have been undertaken, what else can be done (including questions on other actors to be involved)?

6. What are the possible future next steps of the project and its sub-units?

7. How can project sub-units be scaled to a national program in countries where clinical evaluations have taken place during the project? (e.g. eHealth components in Senegal and Burkina Faso and diagnostic developments in Laos, Cambodia, India and Myanmar)

8. How does the project align with and contribute to the Key Change 3 in the Fondation Botnar's Strategy?

9. How is the project aligned with the **Research Fairness Initiative** and how can research fairness be optimised? Key aspects to be considered are:

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[1] The project refers to two work streams: aid in clinical consultations and new diagnostics for fever.

- Decision-making and responsibilities in the project, i.e. how do research partners share their responsibilities in the project to ensure decisions are fair and effective?
- Capacity-building
- Project ownership, in particular how research partners share costs and benefits of the research?

During the inception phase, the evaluation team can review and develop additional evaluation questions as necessary, in consultation with Fondation Botnar and the implementing partner.

3. Methodology

Approach

Fondation Botnar is open to a wide range of evaluation approaches and methods. Regardless of the approach chosen by the evaluation team, the evaluators are expected to foster participation at key moments of the evaluation, seeking the grantee's advice and support (i) during the inception phase, when crafting the evaluation instruments, (ii) during the data analysis phase, and (iii) in developing recommendations. As a rule, methods and perspectives should be triangulated in all evaluations.

The evaluator or evaluation team is required to document the evaluation process and – if applicable – include lessons learnt and recommendations for future final evaluations of Fondation Botnar projects in the evaluation report.

Role of the external evaluator

The external evaluator or evaluation team is expected to work in partnership with the grantee and the project lead at Fondation Botnar to maximise the transparency and utility of the evaluation process and products. The contracting evaluator is expected to collaborate closely with the grantee to:

* Reach a shared understanding of the evaluation objectives and questions, and develop the evaluation approach and process accordingly
* unpack or develop the broader theory of change for the project and potential future steps for downstream impact
* consider secondary data for complementary contextual information and validation of the theory of change
* consult regularly with the project team to boost both the validity of findings and the relevance of results and recommendations, also taking into account the grantee's internal communication needs
* facilitate a validation workshop or consultation (online) to discuss initial findings and recommendations with the implementor and Fondation Botnar.

As a rule, Fondation Botnar representatives will be involved in the inception and debriefing phases.

4. Evaluation logistics

Scope and field visits

The evaluation is expected to take place between October 2021 and April 2022 Its overall budget must not exceed CHF 65 000.

Due to the current restrictions and risks linked to the COVID-19 pandemic, travelling to the project team or project sites is not expected. The evaluation team can work via the phone and online platforms, such as videoconference and visual collaboration tools, to avoid physical contact.

Ethical considerations

The evaluator is expected to comply with evaluation standards, including ethics, throughout the evaluation process, as set out in the OECD/DAC Quality Standards for Development Evaluation (http://www.oecd.org/dac/evaluation/qualitystandards.pdf).

Proposed timeline

Evaluation activities will start upon the execution of the consultancy contract and conclude no later than April 2022. The Final Report including the respective slide deck should be submitted no later than 31. April 2022.

Work packages/action	Responsible	Time/deadline
Selection of evaluator	Fondation Botnar/Grantee	October 2021
Kick-off/inception meeting	Evaluator	October/November 2021
Submission of inception report	Evaluator	November 2021
Evaluation research and analysis, including validation workshop	Evaluator/Grantee	November 2021-January 2022
Submission of draft evaluation report	Evaluator	February 2021
Feedback on draft evaluation report	Fondation Botnar/Grantee	March 2021
Closing workshop	Evaluator	March 2021
Submission of Final Report	Evaluator	April 2021

Inception and dissemination consultations

At a minimum, the consultant will facilitate two workshops with the grantee and possibly representatives of Fondation Botnar. The minimum set of activities are specified as follows:

* Inception meeting or workshop (on-line or in a hybrid format) with representatives of Fondation Botnar and the implementing organisation
* Validation workshop (online or in a hybrid format) with the implementing organisation, to verify and deepen findings, reflect on future steps and gather inputs for recommendations.

Deliverables

The deliverables expected from the evaluation are as follows:

* Inception report of 5-15 pages (plus annexes) including:

  * Understanding of the evaluation purpose and scope (– i.e. what is in and out of scope)

  * Proposed adjustments to evaluation objectives and questions as appropriate

  * Data collection and analysis plan(s) including draft instruments and training plans for any field workers, if appropriate, to be developed in consultation with the grantee

  * Tentative work-plan and schedule for the overall evaluation process, specifying involved stakeholders' roles and moments for communication between the specific stakeholders

  * Preliminary proposal for the dissemination of findings

* Methods documentation package including data collection and analysis instruments as used in the evaluation, and discussion of the evaluation process (may be included in the inception report)

* Draft outline of the evaluation report (anticipating one round of feedback from Fondation Botnar and the grantee)

* Full draft evaluation report of up to 30 pages including a three-page executive summary (anticipating one round of feedback)

* Presentation and discussion of findings and recommendations in a debriefing workshop

* Final evaluation report accompanied by a three-page slide deck summarising the conclusions and recommendations

5. Evaluator requirements

Evaluation expertise

* Theory-based evaluation
* Participatory evaluation
* Desirable: Familiarity with research fairness approaches (RFI or KPFE Principles)

Contextual experience

* Excellent written and spoken English
* Knowledge in the field of public health
* Experience in conducting interviews, group discussions and workshops via online platforms

References

Applicants are requested to include at least three hyperlinks to examples of evaluations that are broadly representative of the evaluator's or the evaluation team's capability vis-à-vis this call.

6. Expression of interest and deadline

Expression of Interest

The expression of interest should be no longer than **2-5 pages** consisting of:

* Introduction of the evaluator or evaluation team including relevant experience and skills
* A short proposal of the methodological approach
* Rough day-rate

An annex can include further documentation such as CVs, reports and publications or other relevant documentation. The 2-5 pages, however, will be the main basis for decision-making.

Deadline

Interested experts are requested to send their expression of interest by 18 October 2021 at 11 am Central European Summer Time. Applications in pdf format can be electronically submitted to dsuhr@fondationbotnar.org