

Caroline Agabiirwe
Ahmed Luwangula
Nathan Tumwesigye
Isabelle Michaud-Letourneau
Twaha Rwegyema
Sara Riese
Laura McGough
Augustin Muhwezi

Assessing bottlenecks within Iron and Folic Acid Supplementation Delivery in Uganda

A workshop report

March 2021

Working
Paper 42



International
Initiative for
Impact Evaluation

About 3ie

The International Initiative for Impact Evaluation (3ie) promotes evidence-informed equitable, inclusive and sustainable development. We support the generation and effective use of high-quality evidence to inform decision-making and improve the lives of people living in poverty in low- and middle-income countries. We provide guidance and support to produce, synthesise and quality assure evidence of what works, for whom, how, why and at what cost.

3ie working papers

These papers cover a range of content. They may focus on current issues, debates and enduring challenges facing development policymakers, programme managers, practitioners and the impact evaluation and systematic review communities. Policy-relevant papers in this series synthesise or draw on relevant findings from mixed-method impact evaluations, systematic reviews funded by 3ie, as well as other rigorous evidence to offer new analyses, findings, insights and recommendations. Papers focusing on methods and technical guides also draw on similar sources to help advance understanding, design and use of rigorous and appropriate evaluations and reviews. We also use this series to publish lessons learned from 3ie grant-making and contributions from 3ie's senior research fellows.

About this working paper

The bottleneck assessment and inventory are core components of the Implementation Science Initiative. It was conducted with national stakeholders to identify major systems-level challenges affecting access to and utilization of iron-folic acid supplements for pregnant women in East Central Uganda. It was routinely updated to track progress on bottlenecks, actions undertaken, results achieved, and lessons learned during the Implementation Science Initiative in Uganda (2018-2020). A summary of insights from the workshop are presented in this paper, *Assessing bottlenecks within Iron and Folic Acid Supplementation Delivery in Uganda: a workshop report*. This paper has not been copyedited but has been formatted for publication by 3ie.

The content of this paper is the sole responsibility of the author and does not represent the opinions of 3ie, its donors or its board of commissioners. Any errors and omissions are also the sole responsibility of the authors. All affiliations of the authors listed in the title page are those that were in effect at the time the paper was accepted. Please direct any comments or queries to: Laura McGough at lmcgough@urc-chs.com.

Suggested citation: Agabiirwe, C, Luwangula, A, Tumwesigye, N, Michaud-Letourneau, I, Rwegyema, T, Riese, S, McGough, L, Muhwezi, A. 2021. *Assessing bottlenecks within Iron and Folic Acid Supplementation Delivery in Uganda: a workshop report*, 3ie Working Paper 42. New Delhi: International Initiative for Impact Evaluation (3ie). Available at: DOI <http://doi.org/10.23846/WP0042>

Assessing bottlenecks within Iron and Folic Acid Supplementation Delivery in Uganda: a workshop report

Caroline Agabiirwe
University Research Co., LLC

Ahmed Luwangula
University Research Co., LLC

Nathan Tumwesigye
University Research Co., LLC

Isabelle Michaud-Letourneau
The Society for Implementation Science in Nutrition

Twaha Rwegyema
University Research Co., LLC

Sara Riese
University Research Co., LLC

Laura McGough
University Research Co., LLC

Augustin Muhwezi
University Research Co., LLC

Working paper 42

March 2021



**International
Initiative for
Impact Evaluation**

Contents

1. Introduction	1
2. First bottleneck and solutions: Health education	1
3. Second bottleneck and solutions: Supply chain and procurement	2
4. Lessons learnt and recommendations	2
4.1 Health Education	2
4.2 Supply Chain and Procurement	3
4.3 Conclusion.....	4
Online appendix: Uganda Bottleneck Inventory	5

1. Introduction

The Uganda Anemia Implementation Science Initiative (ISI) is undertaken by the University Research Co., LLC (URC) under the USAID funded Regional Health Integration to Enhance Services in East Central Region (RHITES-EC) project. The initiative is carried out collaboratively with the Society for Implementation Science in Nutrition (SISN) and the International Initiative for Impact Evaluation (3ie). As part of applying the core principles of Implementation Science (IS), a bottleneck assessment was conducted in order to identify major challenges referred to as bottlenecks affecting access to and utilization of iron-folic acid supplements for pregnant women in East Central Uganda. An inventory of the bottlenecks was routinely updated, keeping track of factors that created the bottlenecks, actions taken, results and lessons learnt. This brief presents a summary of insights from the bottleneck inventory with a focus on actions undertaken and results during the study (2018-2020).

In 2018, a bottleneck assessment was conducted involving key stakeholders in the IFAS service delivery system, including line ministries, National Medical Stores, the Office of the Prime Minister, implementing partners and academia. The assessment revealed two major bottlenecks: 1) inadequate provision of iron-folic acid supplementation (IFAS)-related health education to the mothers (service delivery system); and 2) a weak drugs quantification process at health facility level resulting in unnecessary stock outs (supply chain system). The Anemia ISI team developed an Inventory Tool for routine documentation of possible solutions and actions taken to address identified bottlenecks related to the implementation of IFAS. Initially, the inventory was updated with bottlenecks and possible solutions from several sources, including existing implementation knowledge, the Bottleneck Assessment and implementation research baseline reports. During the implementation period of the study, the inventory was further updated with tested solutions for each of the bottlenecks, challenges, lessons learnt, and recommendations.

2. First bottleneck and solutions: Health education

Major bottlenecks related to health education identified:

- Inadequate counselling at health facility level which did not address anemia and provided only scanty (if any) information on IFAS.
- Lack of a health education plan or schedule.
- Few or no IFAS health education topics included in the facility health education plan.

Tested solutions included:

- Each health facility was provided with a copy of the topics with corresponding key IFAS messages to guide them in articulating key IFAS messages during health education, group and/or individual counselling.
- Health facilities developed and/or revised health education plans to include IFAS topics and key messages including: the importance of IFA; appropriate timing, dosage, and number of tablets; potential side effects and their management; strategies for adherence to daily intake; and the importance of ANC attendance. Health workers documented daily health education sessions and included topics covered. The percentage of documented health education sessions that included IFAS messages increased from 25% in February to 51% in July 2020 across the 20 health facilities.

- Health facilities with large numbers of ANC attendees held more than one health education sessions. Health workers documented daily attendance at the health education sessions. The percentage of pregnant women attending the health education sessions increased from 13% in February to 62% in July 2020 across the 20 health facilities.

3. Second bottleneck and solutions: Supply chain and procurement

Major bottlenecks included:

- Inadequate supply of IFA tablets to health facilities.
- Stock supplied did not match the consumption rate at the health facility.
- Knowledge gap of health workers on guidelines for dispensing folic acid or IFA tablets.

Tested solutions included:

- Advocated for increased budget allocation for IFAS at health facility level, especially the lower health facilities, i.e., health centers (HC) IIs and HC IIIs during the annual procurement planning meeting with key stakeholders at district and national levels. During the annual procurement planning meeting in Buyende district there was consensus to increase the number of IFA tins supplied to the lower health facilities that receive supplies through the PUSH system from an average of 3 -4 to 7 for HCII and from an average of 4-10 to 25 for HC III. Budget allocation for the item were revised for each of the health facilities to reflect the agreed upon quantities. As a result of these efforts, in delivery cycle 1 of FY20/21 there was an increase in the number of IFA tins delivered to the health facilities in the district.
- Routine IFAS stock monitoring, requisition and inter-district and facility redistribution. Three health facilities that implemented QI projects on routine stock monitoring, requisition and interfacility redistribution achieved zero stock out of IFA for 5 months during the implementation period. In addition, there was re-distribution of IFA tablets from Iganga to Buyende district and to each of the 10 health facilities in Buyende district. Consequently, there was a decrease in IFA stock out rate across the 20 health facilities from 40% in October 2019 to 0% in May 2020.
- Mentored health workers on IFAS protocols and guidelines on dispensing folic acid and combined IFA. There was increased health worker adherence to IFA guidelines across the 20 health facilities in the intervention districts. Dispensing a minimum of 30 Iron and or folic acid tablets to every pregnant woman attending ANC improved from 42% in October 2019 to 100% in March 2020

4. Lessons learnt and recommendations

4.1 Health Education

- The process of developing, reviewing, obtaining approval for, and disseminating health provider job aids takes time.

Therefore, there is a need to initiate the process of developing key information, education and communication (IEC) materials and/or provide job aids as soon as a bottleneck related to health education is identified.

- Knowledge gaps among health workers about IFAS and anemia remains a challenge in the delivery of health education. This knowledge gap directly limits health workers' ability to include IFA topics in health education plans and articulate and deliver the key messages during the health education sessions.

A detailed IFAS theme with key topics (importance of IFA; timing, dosage, and number of tablets; side effects and their management; strategies for adherence to daily intake; and importance of ANC attendance) and related messages should be added in the existing National Maternal Health guidelines and those focusing on anemia control and prevention among pregnant women and women of reproductive age. Most existing guidelines and documents contain broad information on the importance and dosage of IFA, but lack critical details, for example, the importance of taking the supplements at different stages during pregnancy and key links of IFAS to early and routine ANC.

- Drawing of health education plans, documentation of the sessions and attendance helps improve accountability and health worker motivation for the service delivered. However, a major challenge remains: the lack of clear and existing guidance on documentation and monitoring systems for health education at health facilities and at service delivery points, such as reporting tools and specific indicators on health education as part of routine health management information system (HMIS).

To further strengthen the efforts made by health workers and to increase accountability, national, district and facility level guidance on the delivery, routine reporting and monitoring of education sessions needs to be provided. At health facility level, department level reporting (e.g. Maternal and Child Health including ANC) needs to be encouraged and possibly included as part of routine monitoring tools. In addition, insights on the delivery of health education and counselling and the difference between the two services needs to be explicitly provided in national guidance documents, with considerations of emerging situations such as COVID-19, which may sometimes require strict adherence to social distancing guidelines.

- Often health education involves providing information from an expert or provider to a passive receiver, whereas counselling is an empathetic interpersonal communication between a client and a provider to help the client learn how to use information to make a choice or solve a problem.

To ensure participatory learning and encourage feedback from mothers about their experiences on IFAS, counselling (either group or individual) is recommended. However, if health education is selected due to staffing or other reasons, a participatory approach should be encouraged and adopted, accompanied with targeted counselling, especially for women attending first ANC visit (whether it is their first pregnancy) and for first-time mothers.

4.2 Supply Chain and Procurement

- For advocacy, initial engagement of key stakeholders at the health facility level, including midwives and health facility In-charges, is important to facilitate understanding of the bottlenecks, their impact, and the need for advocacy to increase budget allocation for the IFA at health facility level.

At the district and national levels, it is important to engage key stakeholders in order to promote a deeper understanding of the needs expressed by health workers during forecasting and procurement planning meetings.

- Mentorship of health workers on IFAS protocols and guidelines (specifically on the importance of folic acid in the first trimester and combined IFA) equips them with knowledge on the need for appropriate quantification of IFA needs during forecasting and procurement.

It is important to support mentorship of health workers and/or develop/provide job aids/guidelines with information on dispensing IFAS, and quantification of IFA tablets needs during forecasting and procurement.

- Although some health facilities made efforts to requisition additional stock from nearby health facilities, their efforts were limited by lack of means of transporting the supplies, especially from distant and hard-to-reach facilities.

Involvement of the district Inventory Management Officer is critical to support inter-facility redistribution, especially for health facilities located in hard-to-reach areas.

4.3 Conclusion

This brief provides key highlights of actions undertaken, results, and lessons learnt during implementation of the IFAS study while employing the implementation science approach. The bottleneck assessment and inventory component guided documentation of the bottlenecks, experiences and outcomes of the actions taken to address them. The lessons learnt and recommendations are particularly important for implementers, planners, and policy makers at different levels within the health system, with the goal of improving the delivery of the IFAS intervention. Most importantly, there is a need for national guidance on the structure, delivery, and reporting on health education sessions as well as addressing health worker knowledge gaps on the guidelines, key topics, and messages related to the intervention. Details of the steps taken to address each of the bottlenecks can be found in the attached inventory.

Online appendix: Uganda Bottleneck Inventory

<https://www.3ieimpact.org/sites/default/files/2021-03/WP41-Online-appendix-Uganda-Bottleneck-Inventory.xlsx>

Working Paper Series

International Initiative for Impact Evaluation
215-216, Rectangle One
D-4, Saket District Centre
New Delhi – 110017
India

3ie@3ieimpact.org
Tel: +91 11 4989 4444

www.3ieimpact.org

