

Problem Statement (100–150 words)

Each year, 2.5 million newborns die, most from preventable causes. While life-saving tools like medications and feeding protocols exist, the gap lies in the absence of trained providers and real-time data to guide quality care. Neonatal care is complex, especially in low-resource settings where neonatal intensive care is impractical and frontline clinicians are overburdened, under-supported, and often work without adequate feedback or training. Health systems in these contexts also lack reliable data, as information is collected for reporting purposes rather than real-time clinical decision-making or system improvement. These gaps result in missed opportunities to save newborn lives and improve care quality. NoviGuide addresses this by equipping frontline health workers with tools to make accurate decisions and enabling health systems to identify and resolve implementation barriers through actionable data.

Innovation or Practice Description (200–300 words)

NoviGuide is a digital point-of-care application that supports frontline nurses, doctors, and midwives in providing high-quality care for sick and small newborns, particularly during the critical first 48 hours of life. Built for use on low-cost Android tablets, NoviGuide guides clinicians through complex neonatal protocols with step-by-step instructions tailored to local language, national guidelines, and available resources. The tool is currently used more than 250,000 times per year across 65 clinical sites in Uganda and eastern Congo and integrates seamlessly into busy clinical workflows.

NoviGuide helps clinicians assess and treat newborns more confidently and accurately. The tool assists in calculating precise medication dosages and nutrition for even the smallest babies. The guidance is not static—it adapts to the realities of each site's available tools and capacity, making it usable even in the most constrained settings.

In addition to improving bedside care, NoviGuide captures real-time data during each use, which populates the NoviGuide Insights Dashboard. This analytics platform helps health administrators identify gaps in care, training needs, and systemic challenges, transforming frontline interactions into actionable system-level intelligence. This dual function—clinical support and care insights—is key to the model's effectiveness and scalability.

Co-designed with clinicians, NoviGuide is not a top-down intervention; it amplifies the capabilities of those closest to patients, turning routine care into a source of both clinical improvement and strategic insight.

Results and Evidence of Impact (150–250 words)

NoviGuide has demonstrated strong adoption and impact in clinical settings. In Uganda, nurses reported consistently using the tool over time and cited increased confidence and reduced stress when managing complex neonatal cases.

The platform's use across 65 sites throughout Uganda and in eastern Congo, with over 250,000 clinical uses annually, indicates feasibility and scalability. Because the application is integrated into everyday practice and shaped through ongoing feedback from users, it fosters sustainable behavior change among health workers. Additionally, the real-time data captured via NoviGuide provides unique visibility into health system blind spots such as medication stockouts and underdiagnosis, offering a new level of insight for decision-makers.

Unlike static training programs, NoviGuide improves care continuously, at the bedside, and adapts to shifting resources and needs. Its use has led to better care experiences for providers, patients, and their caregivers and has laid the groundwork for broader health system strengthening through data-driven decision-making and responsive program design.

Scalability & Sustainability (100–150 words)

NoviGuide has scaled beyond its pilot phase and is now active at 65 sites across eastern Congo and Uganda, with continued growth. Its modular, adaptable design allows for consistent implementation across diverse geographies, clinical workflows, and health system capacities. Deep partnerships with Ministries of Health, local implementers, and academic institutions ensure alignment with national standards while supporting meaningful localization.

Sustainability is supported by a blended model: donor funding and an emerging form of revenue - developing custom applications for organizations willing to pay for NoviGuide in other medical areas and contexts. The platform's ability to generate actionable data for clinical decision-making and policy development makes it attractive to both funders and governments seeking scalable, system-level impact. A participatory design process and a strong local ownership model further support long-term relevance, adoption, and integration into health systems.

Lessons Learned or Key Insights

- Clinical tools must be context-aware to be usable. A one-size-fits-all model does not work in variable resource settings.
- Embedding data capture into everyday clinical practice transforms clinical care into a driver of system improvement.
- Participatory design with local providers increases trust, uptake, and impact.
- Digital tools should serve dual purposes: direct clinical support and strategic health system insight.

Partner Quotes or Community Voice (optional)

“The NoviGuide training initiative, organized by the Nakakeeto Foundation and funded by Global Strategies, was designed to enhance the digital skills of midwives, nurses, and doctors in using the NoviGuide application for newborn care. Moyo General Hospital has been privileged to receive this application, which has significantly mitigated challenges in early detection of neonatal issues. The use of NoviGuide has improved our ability to detect sick babies in the ward, enabling more effective early interventions. As a result, no early neonatal deaths have been recorded, highlighting the app's critical role in early identification and intervention. We are proud that NoviGuide has enhanced our knowledge and provided a valuable platform for delivering individualized care to our newborns.” Statement by Moyo Hospital, Uganda

“A notable aspect of NoviGuide is its role in promoting equity. By standardizing the quality of care provided across facilities, irrespective of location or resources, the tool ensures consistency and fairness in how neonatal care is delivered. This addresses the geographical disparities that have

historically hindered access to quality healthcare.” Dr Margaret Nakakeeto, Founder, Nakakeeto Foundation (NoviGuide Implementing Organization in Uganda)

“NoviGuide has already demonstrated its impact, providing real-time clinical decision support and bridging gaps in neonatal care, especially in resource-limited countries like Uganda.” Henry Waligo, Project Manager of NoviGuide Uganda Project, Nakakeeto Foundation

Implementing Partners:

- HEAL Africa, Democratic Republic of Congo
- TUMAINI Project - Democratic Republic of Congo, University of Montreal
- Nakakeeto Foundation, Uganda