



# MSF Sweden Innovation Unit Round-Up 2022

An overview of the MSF Sweden Innovation Unit's projects and activities in 2022.

## **About Médecins Sans Frontières (MSF)**

Médecins Sans Frontières (MSF) is an international, independent, medical humanitarian organisation that delivers emergency aid to people affected by armed conflict, epidemics, healthcare exclusion and natural disasters. MSF offers assistance to people based only on need and irrespective of race, religion, gender or political affiliation.

*[www.msf.org](http://www.msf.org)*

## **About the MSF Sweden Innovation Unit (MSF SIU)**

Launched in 2012 as a project and formalized into a unit in 2015, the MSF Sweden Innovation Unit deploys a human-centered approach for promoting a culture of innovation across MSF to more effectively co-create innovations that save lives and alleviate suffering. MSF SIU works as an internal MSF consultancy, providing services where needed on innovation projects and initiatives.

Our thematic focus areas include Digital Health and Planetary Health while our transversal focus areas relate to Democratisation of Innovation. We define Democratisation of Innovation as the need to widen the definition of innovation, include programme perspectives, facilitate diversity and inclusion, and support capacity building across all innovation projects that we are involved in.

*[www.msf-siu.org](http://www.msf-siu.org)*



Planetary Health is one of the MSF SIU's thematic focus areas. In 2022, we advanced our work on climate adaptation.

## Foreword: MSF SIU's **Innovation highlights** in 2022

Since the launch of the MSF Sweden Innovation Unit (MSF SIU) 10 years ago (first as a project and then formalised into a unit in 2015), our goal has been to support and promote innovation efforts across the MSF Movement.

Innovations can originate from diverse places and come in all shapes and sizes, from small-scale activities to international projects, and encompass everything from technical solutions to initiatives promoting positive behaviour change. However, despite the diverse nature of innovations we have realised over the years that most successful innovations have one thing in common – collaboration.

Every step of the innovation process – from framing

the challenge/problem and developing a contextually and culturally appropriate solution to implementing and evaluating the new product or process – benefits from people with diverse backgrounds and expertise working together. In the past years, the MSF SIU team has worked to co-create and drive initiatives with colleagues across the MSF Movement.

In 2022, two concrete examples of this work are the **Play Therapy Toolkit** and the establishment of a formal partnership between the MSF Sweden Innovation Unit and the **Sapling Nursery Programme**.

MSF SIU began advocating for play therapy after it was identified as an important but often deprioritized area by participants in the 2019 Paediatric Days

Innovation workshop in Stockholm, Sweden. In 2022, in partnership with the MSF Operational Centre Brussels, we worked closely with the play therapist and play team at MSF's Mother and Child Hospital in Kenema, Sierra Leone, to develop a Play Therapy Toolkit. Building on an idea initially developed during the 2019 innovation workshop, the toolkit provides guidance to anyone interested in implementing play therapy activities as part of MSF operations.

The Sapling Nursery Programme helps MSF staff explore, develop and test early-stage innovative ideas for challenges in MSF's projects, to ultimately improve access and quality of care. Through the new partnership, the MSF SIU will provide resources and technical support to Sapling Nursery projects during the exploratory phase, helping teams build out their innovation ideas. The programme's focus on project-level innovations is in

line with MSF SIU's transversal focus area democratisation of innovation, which we define as the need to widen the definition of innovation and assure focus and inclusion of patients and communities and the integration of capacity building in all innovation projects that we are involved in.

Already identified prior to 2022, we continued to concentrate not only on our transversal focus area but also on our two thematic focus areas – Digital Health and Planetary Health – last year. We launched the **Digital Therapeutics (DTx)** portfolio as an MSF Transformation Investment Capacity (TIC) Incubator project in September 2022. In the context of this project, a patient support platform/DTx for people living with diabetes or tuberculosis will be developed and piloted in a number of contexts including Lebanon, India and Belarus.

On the planetary health side, our work in 2022 included

completing phase one of the **Battery Recycling project** and working with MSF CAMINO to organize two **workshops focused on climate adaptation** in the field.

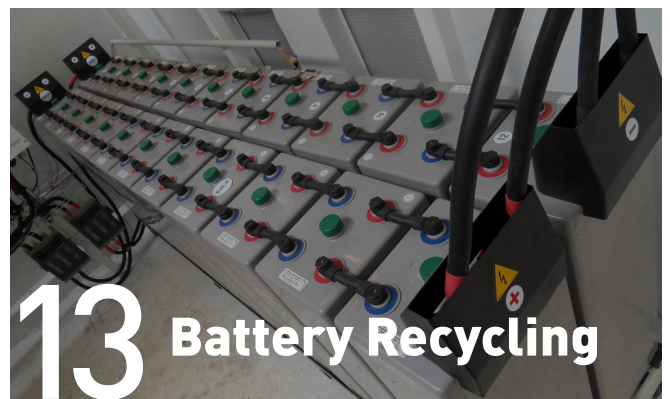
As we have entered our second decade, we are dedicated to continuing to use innovation to improve the quality of MSF's services and meet evolving humanitarian medical needs and new realities head-on.

— The MSF SIU Team



In November, we dived into the topic of Zero Separation during a workshop in Dakar, Senegal, organised in connection with MSF Paediatric Days 2022.

# Contents





Play Therapy at MSF's Mother and Child Hospital in Kenema, Sierra Leone.

## Play Therapy Toolkit

Children under the age of 15 make up more than 60 per cent of patients in MSF's projects, and many have experienced conflicts, natural disasters or other traumatic events. Play therapy uses play to help a child, or a group of children, explore and express their emotions and process and cope with difficult experiences.

In 2019, the MSF Sweden Innovation Unit organised the Paediatric Hackathon focused on designing and exploring innovative

solutions on the topic of paediatric care. Workshop participants identified play therapy as an important but often deprioritised area that deserves more attention, and a mock-up web page was developed with the idea of making all resources needed to set up a play program available in one place. Fast forward to 2022, when we were able to rekindle our collaboration with MSF Operational Center Brussels (OCB) and made remarkable progress. In collaboration with MSF OCB, the MSF SIU has

worked closely with the play therapist and play team at MSF's Mother and Child Hospital in Kenema, Sierra Leone, to turn the original concept into a concrete tool.

Using design methodologies, the MSF SIU has supported the project team in collating and condensing existing material to create a user-friendly and intuitive play therapy toolkit, which can be used by healthcare practitioners with minimal experience in play therapy.

The Play Therapy Toolkit guides readers through the basics of play therapy implementations, creating therapeutic spaces, understanding the theory and science behind play, supply, logistics, infection prevention and control, and provides concrete, inspiration examples for making toys and play activities with limited resources.

### ABOUT THE PROJECT

**Status:** Development in progress

**Stakeholders:** MSF Sweden Innovation Unit, MSF Operational Centre Brussel

**Funding:** MSF Sweden Innovation Unit, MSF Operational Centre Brussel

**Contact:** [Lindsay Bryson](#), Medical Innovation Advisor



MSF SIU organised an innovation workshop focused on Zero Separation during the 2022 MSF Paediatric Days event in Dakar, Senegal.

## Zero Separation Workshop

Zero Separation is a new topic for the MSF Sweden Innovation Unit but one which we are curious to explore in more depth with its potential to address quality of care concerns through patient-centered approaches.

While Zero Separation is an overarching and potentially long-term goal, finding different ways along the care pathway to reduce the moments when mothers and infants are separated can be achievable in the short term.

During MSF Paediatric Days 2022, the MSF SIU team organised a workshop on the topic of Zero Separation in collaboration with the MSF Dakar office. The workshop brought together MSF paediatric staff and other key stakeholders to take a deep dive into the issues surrounding the implementation of Zero Separation strategies.

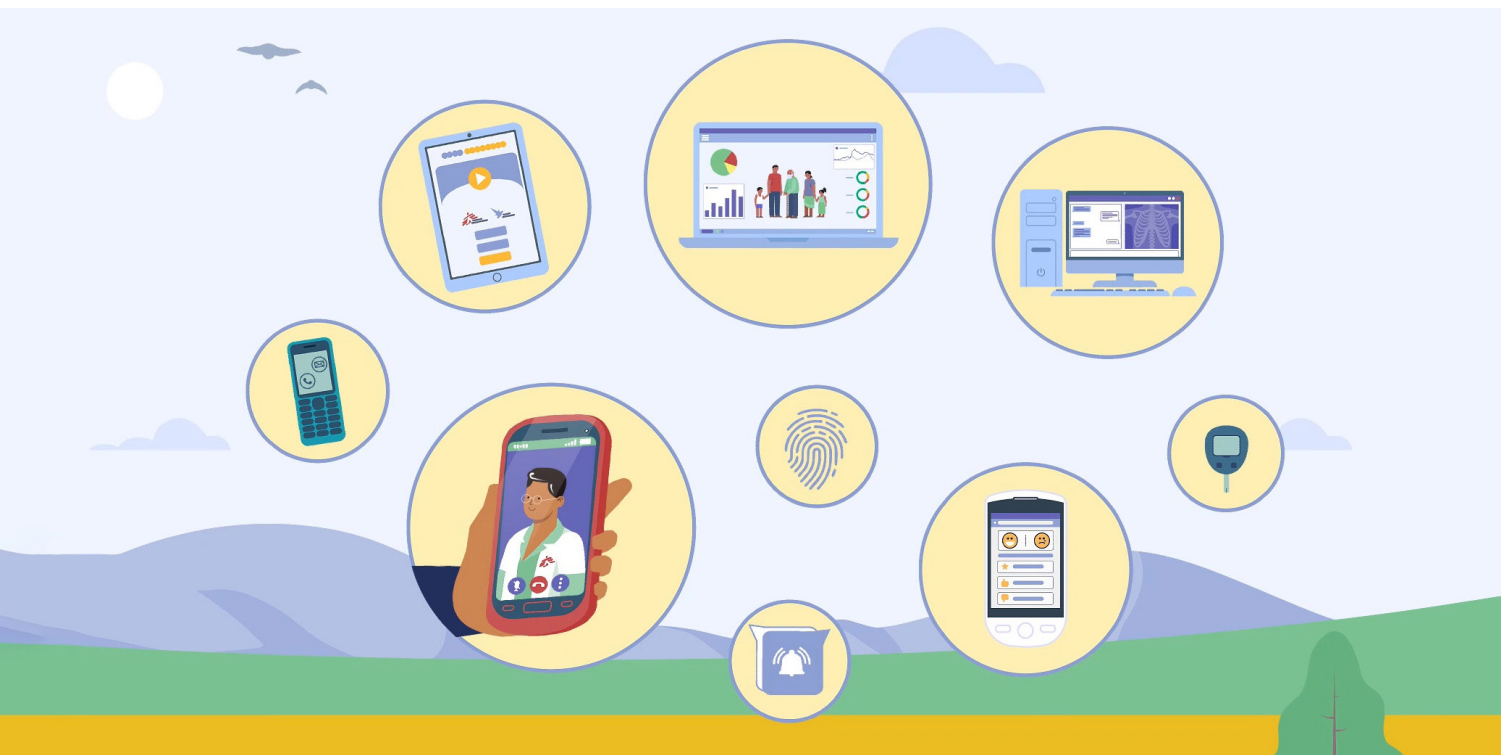
Following human-centered design methodologies, the participants identified challenges and opportunities as well as explored potential solutions and strategies to meet the needs of mothers, babies, healthcare staff and communities.

The ideas and solutions that came out of the workshop remain quite high level but have scope to be teased out and further explored. Participants identified key areas that need attention which include:

- **Education:** Identifying key gaps in knowledge for parents in caring for sick infants and tailoring educational support to these needs, promoting peer-to-peer support groups for mothers and fathers to share and discuss their experiences.

- **Community sensitisation:** Engagement with key community stakeholders to discuss Zero Separation and how it intersects with community beliefs and practices.
- **Architecture:** Designing medical structures that allow for minimal separation of mother and baby even when acute care is required.
- **Medical management:** Creating a flexible nursing staff who can support in mother and baby care throughout the continuum of care regardless of the ward to which they are attached.

In [this blog post](#), we reflect more on the lessons learned during the workshop and next steps.



## Digital Therapeutics (DTx) Portfolio

**Digital therapeutics (DTx) are patient support platforms delivering evidence-based behavioural health interventions.**

DTx can help treat, manage or prevent a spectrum of chronic conditions including diabetes and conditions demanding protracted behavioural reliant treatment regimens, e.g. tuberculosis (TB).

Mobile-based DTx tools provide a holistic set of features serving as a standalone or adjunctive intervention to improve patient understanding, and sustained behaviour change via features such as multimedia and interactive patient education, goal setting, medication adherence reporting and reminders, appointment reminders, monitoring of symptoms and side-effects, and two-way communication with healthcare providers. Building upon the MSF SIU's human-centred design approach, the DTx

project seeks to improve access to person-centred care for people living with diabetes and/or TB in low-resource settings where MSF is delivering clinical care. We are co-creating tools, operational pathways, and patient education materials with patients, communities, clinicians, health system representatives, technical developers, and others to support patients to self-manage their health at the beginning of their treatment journey.

In 2022, the project was launched with **MSF Transformational Investment Capacity (TIC)**. This expanded the project to include exploration of DTx tools for diabetes in Lebanon and TB in Belarus, with learnings from a previous feasibility assessment for drug-resistant TB in Mumbai, India.

On the next page, we look closer at MSF SIU's work with **DTx for diabetes** and **DTx for TB**.

### ABOUT THE PROJECT

**Status:** Development in progress

**Stakeholders:** MSF Sweden Innovation Unit, MSF Operational Centre Geneva, MSF Operational Centre Amsterdam, project teams, patients.

**Funding:** MSF Sweden Innovation Unit, MSF Transformational Investment Capacity

**Contact:** **Hanna Phelan**, Project Lead





## DTx for Diabetes

In Lebanon, there is a sharp rise in non-communicable diseases burden compounded by a multi-crisis setting. The 2021 estimated prevalence of diabetes among people aged 20-79 years was 396/1000 people. There is a need for scalable solutions for patients throughout their treatment journey.

In 2022, the MSF SIU started the development of a DTx for people living with diabetes project, following a needs assessment conducted in Lebanon and Greece to understand the demand and kick-start the co-creation process. The intervention

includes a phone-based platform offering multimedia education, medication adherence support, and other behaviour-change elements. It is a companion tool to use between clinic visits to build understanding of the condition and increase connectivity with MSF services in the initial stages of treatment. The different features of the tool are being co-created with the Lebanon team and patients. It will be piloted for patients undergoing treatment at MSF clinics in Lebanon in 2023.

## DTx for Tuberculosis

In 2021, India had the highest TB and drug-resistant TB incidences in the world. While, Belarus, a high burden country for DR-cases, has one of the highest previous treatment cases returning back to treatment in Europe. This reinforces the demand to enhance the systems of care and support, improving the experience of TB patients, and refining the quality of care.

Driven by this demand and building on the lessons of the Video Observed TB Treatment project, the MSF SIU, and partners launched the DTx for

multidrug-resistant TB project DOST in 2019 in India. A feasibility assessment with a limited group of MDR-TB patients in Mumbai, India, showed promising results setting the scene for future implementations in other project locations including Belarus. In 2022 MSF and collaborators initiated the process of exploring how a DTx may be relevant to the Belarus context with a needs assessment expected to indicate next steps in 2023.



# Sapling Nursery Programme



It can be difficult to structure ideas, turn them into solutions and test and evaluate their impact and replicability in different contexts. The **Sapling Nursery Programme (SNP)**, managed by the UK-based MSF Manson Unit, helps MSF staff explore, develop and test innovative new approaches to challenges in MSF's projects to improve operations.

In 2022, the MSF Sweden Innovation Unit deepened our long-standing relationship with the MSF Manson Unit and the SNP through a formalised partnership with MSF UK, part

of the MSF Operational Center Amsterdam. In the context of this partnership, the MSF SIU provides innovation support to the SNP. The programme's focus on project-level innovations is well aligned with our transversal focus area democratisation of innovation, which we define as the need to widen the definition of innovation to promote inclusion across all innovation project that we are involved in.

Below, we look closer at three Sapling Nursery-projects that MSF SIU supported in different capacities in 2022.

## Projects at Exploratory Phase

One key component of the Sapling Nursery Programme is the exploratory project phase when the main purpose is to assure that project teams have the opportunity to dive deep into identified problems and potential innovative solutions with the support of internal resources and relevant expertise.

During this phase, the teams gain a better understanding of whether the problem initially identified remains relevant, or if the focus needs to be shifted to ensure thorough community engagement. The project team frames the identified

problem and explore culturally and contextually appropriate solutions through patient journey mapping, stakeholder analysis, development of personas and other human-centered design tools. As part of this process, they receive strategic support and mentoring from MSF innovation staff (MSF SIU, MSF Manson Unit and others) as well as external design support to identify and better understand potential barriers and opportunities.



# Malaria Anticipation Project

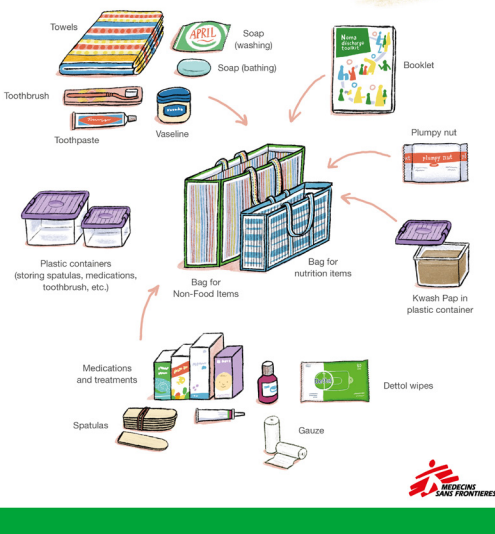
The Malaria Anticipation Project (MAP) is a project supported by the Sapling Nursery Programme that aims to understand if environmental variables and routinely collected malaria data can be used to predict the timing and intensity of malaria peaks using mathematical machine learning-based models.

This early warning system, which has been developed with an external partner, Arup, and is being piloted in Lankien, South Sudan, can then help MSF teams to better anticipate and act upon any predicted rise in malaria cases with the goal of reducing malaria-related mortality and morbidity. In 2022, the MSF SIU provided resources and strategic and hands-on support to the MAP project in the context of our broader partnership with the Sapling Nursery Programme.



# Noma Discharge Toolkit

## Noma discharge toolkit



**Noma** is a rapidly progressive infection that causes severe facial pain and disfiguring injuries. Since 2014, MSF has been supporting the Noma Hospital in Sokoto, Nigeria, which provides specialised care for people affected by noma.

The Noma Discharge Toolkit was the first Sapling Nursery Programme-project funded under the newly developed exploratory grants aimed at testing and mapping the needs via service design support. Within this realm, the noma project team reported that a

majority of patients do not come for follow-up, and those that do return are often re-admitted due to their noma. Informed by community feedback, an all-in-one kit has been developed with food items, non-food items, medicine and treatment and a booklet to aid in engagement and knowledge transfer. The kit aims to contain the most essential items caregivers need to support patients as they heal from fresh noma. To date, the toolkit has been distributed to around 45 patients and caregivers and the feedback has been positive.



MSF biologist Melfran Herrera searches for Anopheles mosquito larvae in a swamp in Sucre state, northeastern Venezuela.

## Climate Health Adaptation Framework

The planetary health topic in general, and mitigation methods specifically, has gained significant momentum within MSF in recent years. However, relatively little has been done to focus the discussion on adaptation measures that are being taken in field projects. To address this gap, MSF CAMINO (the Central America and Mexico Integrated Offices) approached the MSF SIU in 2022 to help them facilitate two strategic workshops on the topic of climate adaptation at the project level.

In the context of this work, climate adaptation is defined as “the capacity to anticipate emergencies caused by climate

change, to alleviate the negative impact of climate change on day-to-day operations in the field and to anticipate potential new scenarios triggered by climate change to guide strategic planning at an organisational level.”

Prior to the workshops, a project team worked to conduct an analysis of existing literature and best practices for climate adaptation strategies and interviewed key stakeholders within and outside of MSF to gather their experience and input on how MSF Can better plan adaptation to climate change. Insights from this work were used to develop a tool that helps MSF teams evaluate their

context from a climate lens and understand what resources and possibilities are already out there and how these can be leveraged to improve MSF’s climate adaptation response in the short and long terms.

The draft tool was then presented in two workshops to gain feedback from MSF staff in strategic and operational roles. In a next step, the outputs of the workshops were consolidated into a report and we are currently working with CAMINO to explore ways to further develop and disseminate the tool within MSF.



Battery set, part of the hybrid solar system in Moissala, Chad

## Battery Recycling Project

The battery usage across MSF has increased significantly in the last decade and is foreseen to increase even more in the coming years (especially li-ion batteries). The rationale of the **Battery Recycling project** is to investigate how MSF can improve the management of all kinds of batteries at a project level.

According to MSF Logistique, one of MSF's European Supply Centers, close to 3,500 batteries were sent to MSF Operational Center Paris (OCP) missions between 2008-2021. However, because batteries can be sourced from many different places and often come embedded in other devices, such as laptops and solar panels, this number likely only paints a partial picture. In 2021-2022, after a request from OCP, the MSF Sweden Innovation Unit reviewed how

different types of batteries are used in MSF projects to better understand their lifecycle and what happens with them after use.

MSF SIU's mixed-method review of MSF's battery usage and disposal practices found that the lack of a clear process for the battery life cycle within our organisation can pose barriers

to **MSF's energy transition** ambitions and potentially cause harm to both humans and the environment.

As part of the first project phase, which came to an end in June 2022, the MSF SIU team developed clear proposals for new battery disposal best practices and processes.

### ABOUT THE PROJECT

**Status:** Development in progress

**Stakeholders:** MSF Sweden Innovation Unit, MSF Operational Centre Paris

**Funding:** MSF Sweden Innovation Unit, MSF Operational Centre Paris

**Contact:** Marpe Tanaka, Innovation Advisor



**Let's stay in touch**

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