Rethinking Single Use Medical Items

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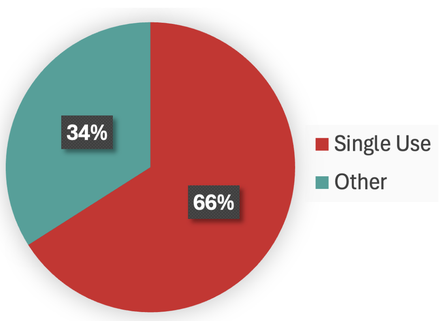
Background

In line with MSF's commitment to reduce its carbon footprint, this project examined the environmental impact of **single-use medical items** (SUMI), which account for **66% of all medical items procured** by 5 Operational Centres, between 2019 and 2023.



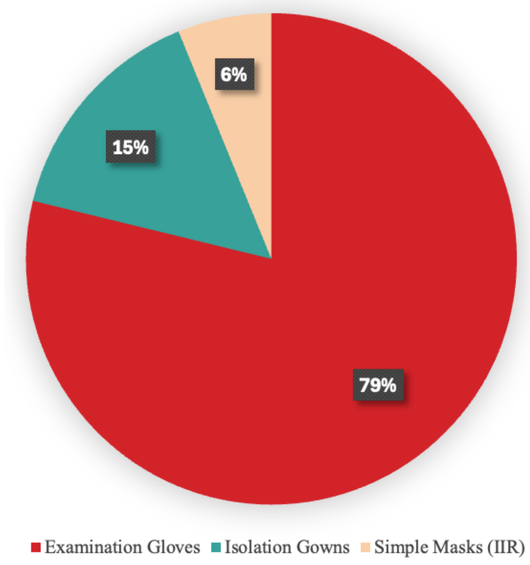
Share of single use items on the total of medical items procured (total expenses, 2019-2023)

Objective

The project's overall objective is to reduce SUMI's environmental impact through a methodology that identifies the **most impactful ones,** then suggests **practical mitigation measures** to be implemented.

Methodology

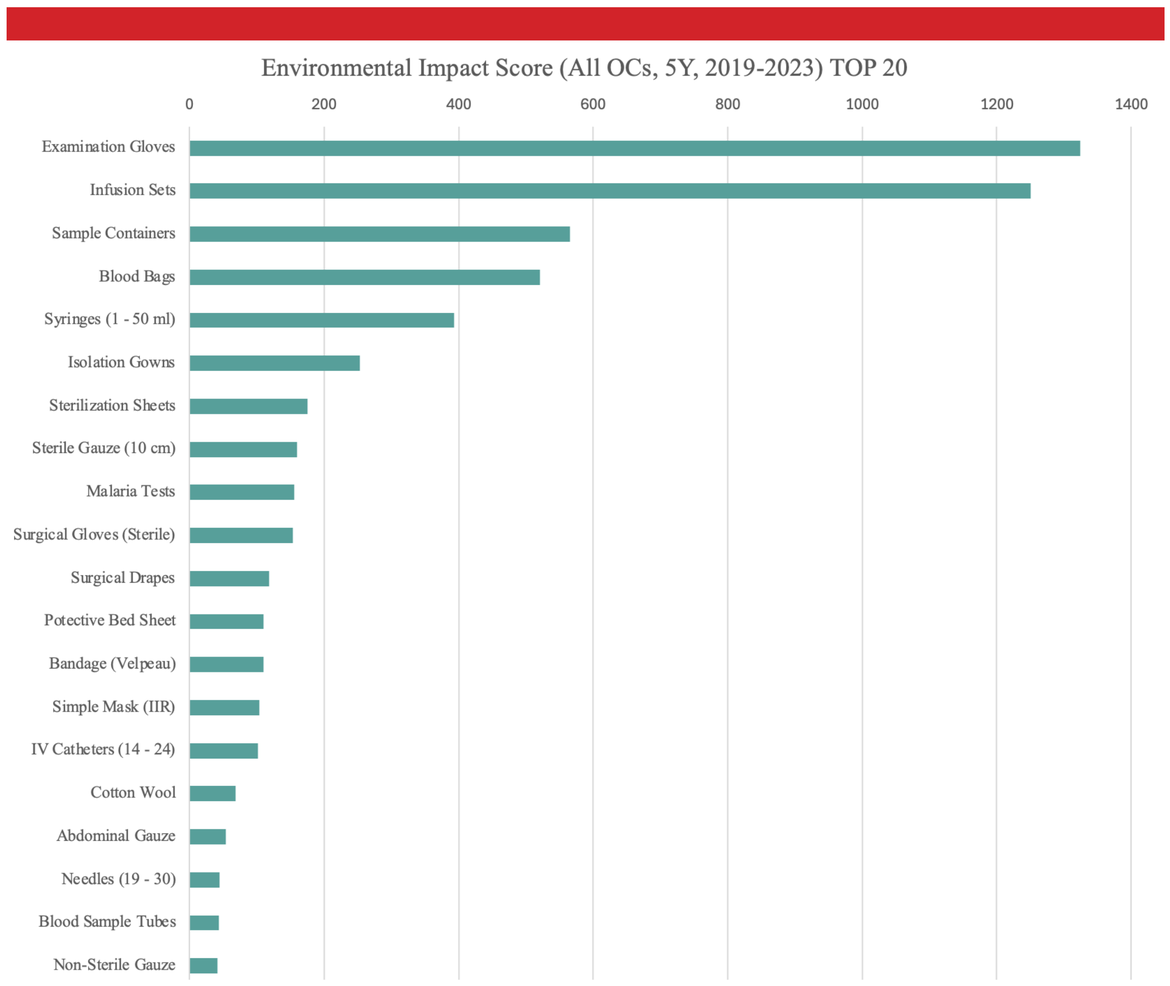
The list of single-use medical items available in the MSF catalogue was narrowed down from over 4000 to 160, based on procurement data and expenses. Then, inspired by a Life Cycle Assessment (LCA) approach, an analytical framework was developed to evaluate these items across their life cycle stages, including **production, transport, storage and end-of-life.**
Data was collected from manufacturers, product samples, and MSF's European Supply Centres to assess each item's impact through three indicators: **Climate Change, Human Health, and Plastic Pollution**.



Personal Protective Equipment *is the largest category in terms of environmental impact, primarily examination gloves.*

> **"If the Planet is Sick, People will be Sick.**
> **Christos Christou, MSF International President**

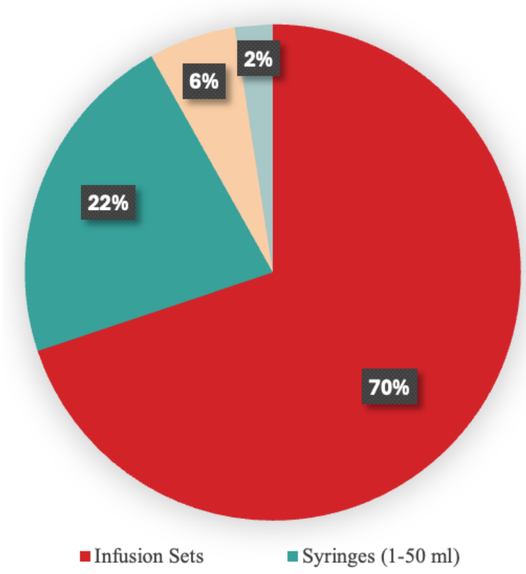
TRANSFORMATIONAL INVESTMENT CAPACITY



Top 20 Ranking items, by total environmental impact (collated impact score of Climate Change, Human Health and Plastic Pollution, expressed in points) for all MSF Operational Centres, between 2019 and 2023.

Results

The project identified the **20 most impactful single-use medical items** used in MSF operations, primarily examination gloves, infusion sets, blood bags, syringes, and isolation gowns. Potential mitigation measures were subsequently identified and categorized using the "Waste Hierarchy": **"refuse," "redesign," "reduce," and "reuse"**. In practice, this involves measures such as developing **sustainable technical specifications,** identifying more sustainable alternatives, **promoting rational use** and implement reusable alternatives, and **advocating** for changes in the medical device industry.



"Devices for Injections" *is the second-largest category in terms of environmental impact, primarily IV Infusion Sets.*

Conclusions

These results have practical and implications for MSF. The initial steps towards **mitigating the impact of medical activities** have been identified and organised into three main work streams. In terms of procurement, integrate environmental expertise into the **product selection** process. Regarding medical activities, **promote sustainable practices**, such as implementing reusable alternatives and ensuring the **rational use of items**. Lastly, the project's findings and recommendations will be used to **influence** the broader **healthcare industry** beyond MSF. Overall, the project advocates for incorporating sustainability considerations into MSF's operations at all levels.

Potential Benefits

For MSF operations, suggested mitigation measures promises **a reduction in carbon emissions, improved waste management, and potential cost savings.** For patients and staffs, they will **reduce health risks** associated with **climate change and environmental pollution,** reduce risks of healthcare associated infection, reduce pain and discomfort, ...

"Wear With Care" Campaign

Concrete mitigation measures to reduce our consumption of SUMI have already been piloted!
The **"Wear With Care"** (WWC) campaign, through a behaviour change approach, was successfully implemented in Lebanon in 2023. It identified the key barriers to the proper **use of examination gloves.** After 9 months into the campaign, examination glove consumption per patient consultation **decreased by 40%.**
Similar efforts are now being considered in Sierra Leone, Afghanistan, Niger, and Kenya. Who's next? If you are interested, contact your IPC referent, and we will provide support.

Non-Sterile Examination Gloves ***Rank #1*** *in terms of quantities procured, total weight transported and environmental impact.*

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