

MANAGING PACKAGING WASTE SUSTAINABLY – LESSONS FROM HUMANITARIAN ORGANIZATIONS

UNICEF: DISTRIBUTING LONG LASTING INSECTICIDAL NETS IN BULK

INTRODUCTION

To survive and thrive, children need holistic solutions that address the consequences of sudden-onset disasters (increasingly exacerbated by climate change) and resilient solutions that promote long-term climate-smart development. This is why UNICEF strives towards impact on these issues throughout its global programs, advocacy, communication, operations and supply chain. The organization's commitment is reflected in UNICEF's Strategic Plan 2022-2025 and UNICEF's [sustainable procurement procedures](#).



Long-lasting insecticidal nets (LLIN) are one of the two main tools for malaria prevention and control and one of core relief items used by UNICEF. From 2021-2022, UNICEF delivered 60 million¹ LLINs to 36 malaria endemic countries for distribution to households, schools and health care institutions. UNICEF acts on behalf of governments and partners and places purchase orders with qualified manufacturers who produce and pack LLINs for direct shipment to countries. Each order is customized to a receiving country's specific requirements including size, type of insecticide, artwork and packing. For many years, most governments and partners have been requesting that LLINs were packed in single use, individual plastic bags - considered as the default packing option.

Concerned about the end of life of the single use plastic bags in countries where the waste management capacity is on average low², UNICEF managed packing requirements in a way which reduced plastic waste in its LLIN deliveries and created savings in procurement costs.

¹ UNICEF is one of the largest public procurers of LLINs. Every year, global partners, such as UNICEF, Global Fund and PMI, send about 220 million LLINs to malaria endemic countries, 88% of deliveries are to sub-Saharan Africa.

² It is even less in remote areas that LLIN distribution campaigns reach.

HOW DID IT WORK?

UNICEF promoted bulk packing as an alternative to individual packing of LLINs in its deliveries. In bulk packing LLINs - *without individual bags* - are baled by fifty into compact units, which are convenient for transport and distribution.

As the procuring agent for governments and partners, UNICEF had to rely on persuasion in order to influence others to change their packaging practices, using a two-stage approach.

UNICEF started with consistently offering bulk packing as an alternative to individual packing. In its cover letters to partners, UNICEF presented bulk packing as an ideal option, emphasizing sustainability issues, and highlighting benefits including cost-efficiencies.

Recently, UNICEF went a step further and shifted to offering bulk packing by default and requesting for a justification if a partner wished to revert to individual packing of nets instead. Based on the feedback received, UNICEF began working with governments and partners to address concerns, helping to remove actual or perceived barriers to accepting bulk packing. Lastly, in its estimates for governments and partners, UNICEF separates the cost of plastic bags from the cost of the actual procured commodity (i.e., LLINs) which helps to further promote bulk delivery.

RESULTS

Offering bulk packaging as the default option was received positively by governments and partners, many of whom welcomed this change, as it helped to progress their own efforts to reduce pollution caused by plastic packaging (in this case polyethylene) which is rarely recycled and - since LLINs are distributed in remote areas - individual plastic bags that come with them are even more difficult to collect and manage appropriately.

As a direct result of the active guidance for bulk packing for LLINs, from 2021 to 2022, UNICEF avoided sending 11.5 million single-use plastic bags, while generating US\$317,000 savings in LLINs procurement.

While US\$317,000 in savings resulting from avoidance of individual packaging may seem small compared to US\$116 million (i.e., the total value of LLINs procured by UNICEF in 2021 and 2022), these savings enabled the procurement of a 160,000 additional LLINs for countries and regions in need of vector control tools and restricted by limited funding.

CHALLENGES

REDUCING PACKAGING WASTE IS NOT A PRIORITY FOR GOVERNMENTS AND PARTNERS WHEN ORDERING LLINs

Governments operate in complex environments, where multiple factors and competing priorities impact decisions when it comes to planning LLIN procurement and distribution. For too long, the environmental impact of LLINs packing has not been a priority. Decisions on procuring LLINs in bulk packing or

individually packed have not been thought through exhaustively, as part of planning for distribution campaigns.

Rather than imposing decisions on governments and partners, UNICEF has used advocacy to highlight both the environmental and financial advantages of bulk packing for LLINs, helping to convince them to make the paradigm shift.

INDIVIDUAL PACKING IS PERCEIVED AS THE MOST SUITABLE / HIGH QUALITY OPTION COMPARED TO BULK PACKING

Individually packed LLINs are perceived as being better (as compared to bulk packaging), often for cultural reasons, or because people are accustomed to “super market” or “single use” culture with regards to packaging. The preference for individual packing can also stem from specific concerns around safety, transportability, accountability, visibility, etc. - and the use of individual bags is seen as a way to mitigate them.

By asking partners to justify their requests for individual packing, UNICEF has been able to gather a better and deeper understanding of what drives partners to make these requests: this is helpful in shaping a new, attractive narrative around bulk packing.

LESSONS LEARNED

- Small changes can go a long way: by simply swapping a default packing option in its offers to governments and partners, UNICEF triggered a more intentional decision-making around packaging requirements and helped avoid waste equal to 11.5 million single-use plastic bags.
- It is not possible to reduce the environmental impact of humanitarian work or effect a positive change working in isolation. When supply chains are concerned, market readiness and support can be key for successful sustainability initiatives. When pushing for reduction of plastic waste in its LLIN deliveries, UNICEF found that LLINs manufacturers were equally concerned about plastic packaging waste and environment: many came forward, offering additional discounts for orders with bulk packing requirements.
- Bulk packing may reduce both shipping costs and the CO₂ footprint from freight associated with reduced volume as a result of more efficient packing of LLINs. As plastic bags are removed, extra space is released, which potentially allows more LLINs to be loaded into shipping containers. An assessment of the potential impact - in terms of CO₂ and costs saved - does not exist but would be beneficial.
- When packed individually the important information for users on how to install, use, wash and dry the bed nets to ensure a maximum shelf-life appear on the packaging. The same information is also always included directly on the bed nets’ care label, usually in the language of the country and this information can be consulted by users at any time (vs on the plastic packaging which is usually torn and thrown immediately after the LLIN is being received). In addition, National Malaria Programmes typically organize awareness sessions during distributions with demonstrations providing key information on how to use the nets to beneficiaries. Hence removing an individual bag should not be seen as affecting the effectiveness of the malaria campaigns.

CONCLUSIONS

The wider environmental issues related to LLINs are complex and solutions require comprehensive thinking around waste management, recycling, social practices and innovation. However, the reduction of plastic waste in LLIN distribution is already bringing significant impacts and can be a quick and early win.

“This was an obvious thing to do, when you consider the amount of LLINs we deliver each year. It created a huge impact, not only reducing plastic waste and saving the environmental impact but also saving costs.”
Valerie Markova, Contracts Specialist, UNICEF Supply Division.

This case study is a good example of how an organization can take responsibility to reduce its waste and environmental footprint, and how small changes in the way we work can go a long way, particularly in a large agency with multi-country operations.

Nevertheless, beyond organizations’ strategies and plans, these practical **changes can only happen with the motivation and initiatives of humanitarian staff who want to shift to a more sustainable humanitarian sector.**

Finally, this case study demonstrates the engagement and willingness of industry to implement sustainability initiatives and work hand in hand with humanitarian organizations for a more environmentally sustainable response. Across the board, suppliers are supporting sustainability initiatives and, in some cases, are very advanced. **Our sustainability efforts as humanitarians can only happen if we work to ensure an ongoing dialogue with our suppliers.**



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