



Global Health
Supply Chain Summit

ABSTRACT 76

TRACK 15

December 1, 2022

2022

Dakar,
Senegal



Introduction

Innovations in Contraceptive Packaging to Drive Supply Chain Efficiencies and Commodity Security

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USAID Global Health Supply Chain Program-Procurement
and Supply Management (GHSC-PSM) project



Background

USAID and UNFPA contraceptive and condom shipments in the last 5 years



Data source: GFPVAN

Note: USAID shipments shown here are only those funded by the Office of Population and Reproductive Health.

USAID and UNFPA deliver over \$200 million in contraceptives and condoms to over 30 countries annually.



Why does contraceptive packaging matter?

Product packaging is important for contraceptive security



- Product labeling
- Co-packaging
- Quality integrity
- Product waste
- Plastic and cardboard waste



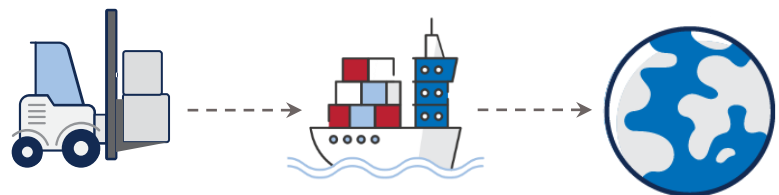
Why does contraceptive packaging matter?



Packaging is important at every supply chain level

Global supply chain

Manufacturing, global procurement, international delivery and warehousing



In-country supply chains

In-country storage and distribution, picking/packing at warehouses
Management at service delivery points



Export cartons on pallets



Inner boxes or saleable units



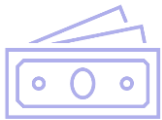
Dispensing unit

Background Goals

Updating the packaging presentation for contraceptive products can:



Improve coordination among the global community



Reduce the cost of contraceptive products



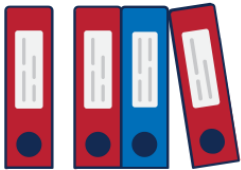
Improve commodity security through increased flexibility



Decrease environmental impact and waste

Methodology

A team effort between USAID, UNFPA, GHSC-PSM



Desk Study

Conducted desk study to document where UNFPA and USAID packaging specifications align and diverge and to identify rationale for current packaging specifications across key contraceptive products. Conducted interview with key suppliers to understand manufacturing capabilities and constraints.



Case Studies

Conducted case studies in Mozambique, Rwanda, Zambia, and Zimbabwe to understand impact of packaging configurations on in-country supply chains across key contraceptive products.



Green Packaging Innovations

Explored opportunities for innovations in greener packaging and reduction of environmental impact with focus on MPA-IM.



Methodology

Product Selection



- Male Condoms
- Female Condoms
- Medroxyprogesterone acetate intramuscular injection (MPA-IM)
- Personal Lubricants
- Combined Oral Contraceptive Pills
- Contraceptive Implants
- Intrauterine Devices



Results Desk Study

- There are major packaging differences in otherwise identical products procured by donors.
- Procurement agents generally do not include detailed packaging requirements in solicitations.



Results

Male Condoms



- Stakeholders experienced confusion with multiple packaging configurations.
- Stakeholders expressed a preference for inner boxes of 100 pieces.



Results MPA-IM



2 intermediary boxes per export carton



4 safety boxes per export carton



12x200 syringes per intermediary
box



40x25 vials per intermediary
box

Stakeholders expressed a preference for the co-packaged product consisting of a smaller number of vials and syringes of equal quantity packaged together.

Picking/packing vials and syringes
in equal quantities



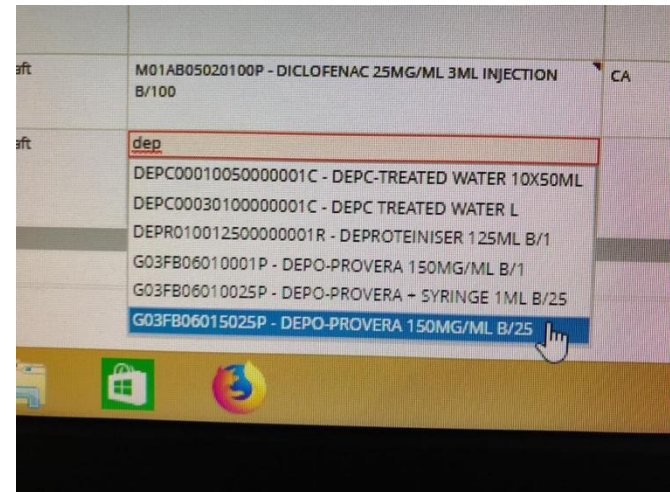
Safety boxes separated at warehouse;
unavailable at facilities



Results Case Studies

Key challenges identified by in-country stakeholders

- Saleable unit sizes inconsistent with facility-level ordering
- Labeling inconsistencies among box levels leads to confusion
- Miscommunication of stock availability due to multiple SKUs for one product



MPA-IM (Depo-Provera):
Rwanda eLMIS

What is green packaging?



What is green packaging?

Packaging plays a critical role in almost **EVERY** industry, **EVERY** sector and **EVERY** supply chain.

In the pharmaceutical industry, packaging is essential to maintain the quality of the product. Packaging protects the product not only from physical damage but also from biological degradation.



Green packaging initiatives may include:

- | | |
|----------------|--|
| REduce | Reduce the volume of packaging materials |
| REuse | Reuse secondary and tertiary packaging materials |
| REcycle | Use recycled materials |

Methodology



- Investigate best practices in green packaging across key contraceptive product categories procured by USAID and UNFPA and develop recommended changes to secondary and/or tertiary packaging
- Ensure recommendations would not negatively impact product quality
- Assess the environmental impact of various MPA-IM packaging options, including impact feasibility assessment and/or cost benefit analysis for each recommendation



Recommendations

Harmonization improvements

- Male condoms: USAID and UNFPA catalogs offer the same export carton of 3,000 pieces and inner boxes of 100 pieces
Implemented in 2020
- MPA-IM: Remove the safety box; order separately
Safety boxes available separately in USAID catalog

Sustainability improvements

- Remove plastic straps from export carton
- Remove plastic liners and Styrofoam from export carton
- Remove logos from export carton
- Separate safety box from MPA-IM co-package
- Develop and introduce 20-vial MPA-IM bundle
Implemented in 2023



Removal of plastic straps from export cartons

Environmental Savings

- Elimination of 11,008 kg of plastic
- Elimination of 156,307 kg of CO2 emission
- Elimination of 385,264 Kwh



Cost Savings

- Estimated total annual savings of \$17,766

Additional Benefits

- Minimize damage to export cartons.

Removal of plastic liners and Styrofoam from export carton

Environmental Savings

- Elimination of 872 kg of plastic
- Elimination of 12,389 kg of CO2 emission
- Elimination of 30,535 Kwh



Cost Savings

- Estimated total annual savings of \$3,847

Additional Benefits

- Less than 1% incident rate due to water damage.

Removal of logos from export cartons

Environmental Savings

- Elimination of 47g of vinyl
- Minimizes release of ink, glue and sticker residue into the environment

Cost Savings

- Estimated total annual savings of \$940

Additional Benefits

- Enhanced fungibility of product to more effectively respond to emergency requests

Separate safety box from MPA-IM co-package

Additional Benefits

- Facilitates in-country distribution of safety box separately
- Facilitates opportunity for local procurement of safety box
- Harmonization of SKUs between USAID and UNFPA





20 vial MPA-IM bundle



- 20 vials of MPA-IM
- 20 syringes, 1 ml
- 1 leaflet (instructions of use)

Harmonization of requirements from USAID and UNFPA towards 20 vial bundle will result in:

- Reduction of total shipping volume by 40%
- Reduction of secondary packaging material by 70%
- Meeting end-user preferences / fungibility
- Reducing wastage and incineration of expired products
- Suppliers to stock MPA and thereby reduce the need for air shipments



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