ABSTRACT 76
TRACK 15
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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
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.
Stakeholders expressed a preference for the co-packaged product consisting of a smaller number of vials and syringes of equal quantity packaged together.
Results
MPA-IM

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.

<table>
<thead>
<tr>
<th>Green packaging initiatives may include:</th>
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<tr>
<td><strong>REduce</strong></td>
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<td>Reduce the volume of packaging materials</td>
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<tr>
<td><strong>REuse</strong></td>
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<td>Reuse secondary and tertiary packaging materials</td>
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<td><strong>REcycle</strong></td>
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<td>Use recycled materials</td>
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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**

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<tr>
<th>Harmonization improvements</th>
<th>Sustainability improvements</th>
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<tr>
<td>- Male condoms: USAID and UNFPA catalogs offer the same export carton of 3,000 pieces and inner boxes of 100 pieces <strong>Implemented in 2020</strong></td>
<td>- Remove plastic straps from export carton</td>
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<tr>
<td>- MPA-IM: Remove the safety box; order separately <strong>Safety boxes available separately in USAID catalog</strong></td>
<td>- Remove plastic liners and Styrofoam from export carton</td>
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<td>- Remove logos from export carton</td>
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<td>- Separate safety box from MPA-IM co-package</td>
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<td>- Develop and introduce 20-vial MPA-IM bundle <strong>Implemented in 2023</strong></td>
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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.

*Estimated Savings based on FY22 USAID and UNFPA procurement volumes.
### 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.

*Estimated Savings based on FY22 USAID and UNFPA procurement volumes.*
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

*Estimated Savings based on FY22 USAID and UNFPA procurement volumes.*
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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