

# Innovations in Contraceptive Packaging: Improving supply chain efficiency and green procurement



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# Outline

- Introduction
- Background
- Methodology
- Results
- Recommendations

# Why does contraceptive packaging matter?

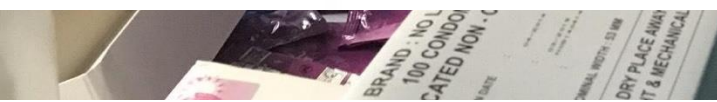
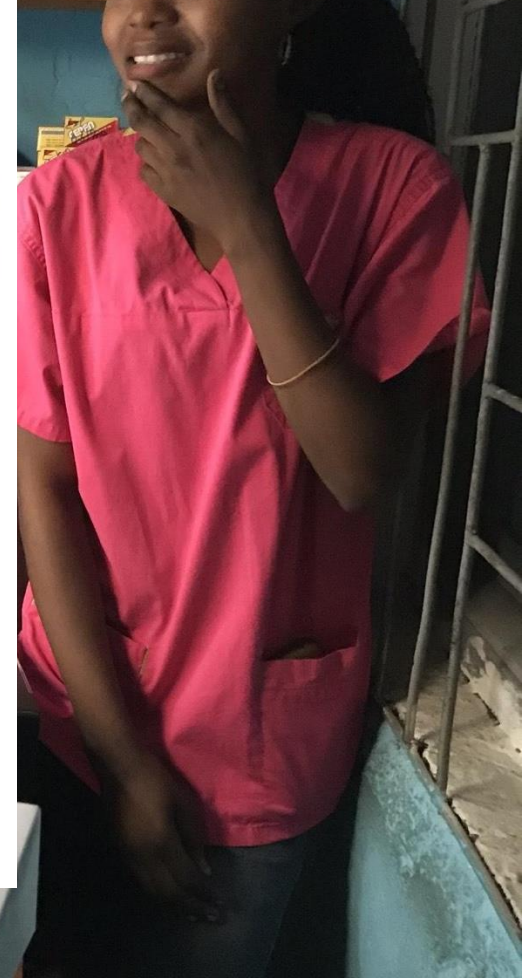
Product packaging is important for contraceptive security



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

Source: The Logistics Handbook: A Practical Guide for the Supply Chain Management of Health Commodities

# 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



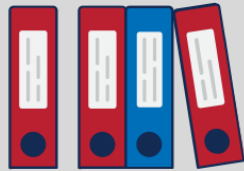
- Improve commodity security through increased flexibility



- 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 (Copper T)



# Results

## Desk Study

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- There are major packaging differences in otherwise identical products procured by donors.
- Procurement agents generally do not include detailed packaging requirements in solicitations.
- Many suppliers offer multiple packaging configurations
- Many suppliers have their own “green” goals and approaches

# Male Condoms

## Packaging differences between USAID and UNFPA



# Female Condoms

## Packaging in large quantities



Export Carton



Dispensing Unit

# MPA-IM

## Packaging differences between USAID and UNFPA; not bundled



2 intermediary boxes per export carton



4 safety boxes per export carton



12x200 syringes per intermediary box



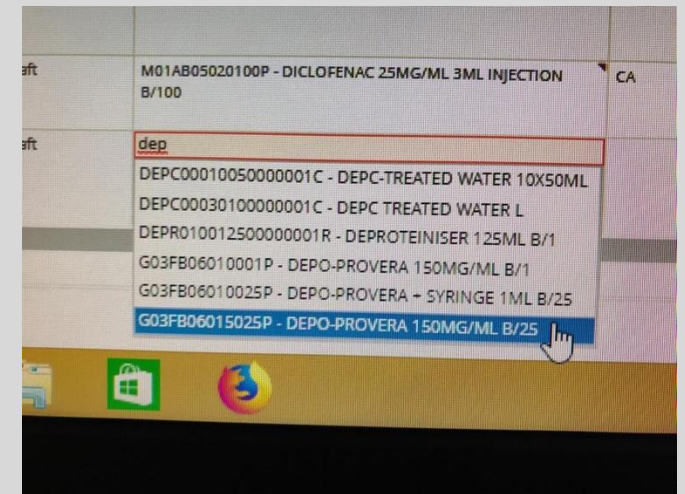
40x25 vials per intermediary box

# 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



Injectables (Depo-Provera):  
Rwanda eLMIS

# Results

## Male Condoms Challenges and Preferences

Stakeholders experienced confusion with multiple packaging configurations.

Stakeholders expressed a preference for inner boxes of 100 pieces

*“Sometimes there is confusion when picking and packing. Staff can take a pack [inner box] of 144 pieces thinking it is a pack [inner box] of 100 pieces.” – Rwanda*

*“The challenge is in terms of stock management: Pharmacists may be required to maintain two stock cards to manage various sizes [of packaging].” – Rwanda*

*“[Inner boxes of] 100 is better because it is easier to count. Health centers order by individual pieces and it is easier to adjust orders to [inner] boxes of 100 [pieces].” - Rwanda*

- Ensure consistency in packaging among major procurers.
- Preference for inner boxes of 100 pieces because they are easier to count.
- Consider option of pillow packs of 10 pieces each

# Results

## Female Condoms Challenges and Preferences

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- Stakeholders experienced challenges with the large quantity of sachets contained in the export carton.
- Stakeholders expressed a preference for quantities of 100 sachets or less per export carton or inner box.
- Stockouts of female condoms were observed in service delivery points.

# Results

## MPA-IM Challenges

Picking/packing vials and syringes  
in equal quantities



Safety boxes separated at warehouse;  
unavailable at facilities





# Results

## MPA-IM Preferences

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

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*“Sometimes [we] distribute Depot without syringes. When this happens, the health facility calls and we transfer later. It would be better to have the Depot and syringe in the same box [dispensing unit]. It is better for the provider to take one kit to the client without any confusion.”*  
– Rwanda

*“It is better to go with one packaging configuration where syringes are co-packaged. It is very resource intensive to look at each individual order to ensure syringes were ordered. Safety boxes are also appreciated at the facilities.”* – Zambia

*“It is a problem when vials and syringes are unbundled because they must be kept separately in the system. It is better to package syringes and vials together in the same inner box.”* – Zimbabwe

# Results: 5 Green packaging improvements

## Intervention

- Remove plastic straps from export cartons
- Remove plastic liners and Styrofoam from export carton
- Remove logos from export carton
- Separate safety box from MPA-IM export carton
- Develop and introduce MPA-IM in 20/20 pack



## Impact

- Elimination of 11,880 kg of plastic
- Elimination of 168,696 kg of CO2 emission
- Elimination of 415,799 Kwh
- Minimize release of ink, glue and sticker residue into the environment

### Additional Benefits:

- Harmonization of SKUs between USAID and UNFPA
- Enhanced fungibility of product to more effectively respond to emergency requests
- Anticipated cost savings

# Recommendations

- Male condoms: USAID and UNFPA catalogs offer the same export carton of 3,000 pieces and inner boxes of 100 pieces

**Implemented in 2020**

- Female condoms: USAID and UNFPA offer export cartons with quantities <1,000 pieces

**Implemented in 2020**

- MPA-IM: Remove the safety box; order separately  
**Safety boxes available separately in USAID catalog**

- MPA-IM: package in co-packaged presentation, with a preference for packaging the vial and syringe in the same dispensing unit

**New pack of 20/20 introduced in 2023**



# Next Steps: Plans for 2024

## Intervention

- Remove plastic straps from export cartons
- Remove plastic liners and Styrofoam from export carton
- Remove logos from export carton
- Identify additional packaging interventions, with input from suppliers
- GHSC-PSM to include in upcoming tenders
- Continue to align with UNFPA on identifying “optimal” packaging configurations
- Data collection from 20/20 MPA-IM in Zambia

## Impact

- Harmonization of SKUs between USAID and UNFPA
- Enhanced fungibility of product to more effectively respond to emergency requests
- Anticipated cost savings



Thank you!

Questions?