Expanding Access:
Estimating the Impact of DMPA-SC Introduction

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Photo by Laura Wando, WellShare International
Adding DMPA-SC?

- DMPA-SC is an innovative new technology
- It has many “game changing” qualities
- Can we quantify how much of a “game changer” it might be for national family planning programs?
Pathways of Change: Potential Impact of DMPA-SC

1. Increased access
2. Simplified logistics
3. Improved continuation

mCPR = modern contraceptive prevalence rate
Purpose of the model:
- To examine the mechanisms through which we might expect DMPA-SC to have a programmatic impact
- To quantify the cost implications of this impact

Policy questions the model can answer:
- What is the potential mCPR (modern contraceptive prevalence rate) impact of DMPA-SC rollout?
- Through which pathways might DMPA-SC be more or less likely to have an impact?
- Will DMPA-SC’s simplified logistics help boost mCPR?
- What policy changes are essential to achieving the impact we want?
DMPA-SC introduction would expand access to family planning:
  - By adding DMPA-SC to a facility where DMPA-IM is not already offered
  - By increasing the types of service delivery points that can provide/sell injectables, geographic access to family planning will increase

The model estimates an increase in mCPR when a new method is made fully available
  - Increase is based on a country’s current mCPR levels
  - Uses similar methodology to the RHSC Reducing Stockouts Impact Calculator
DMPA-SC introduction could simplify logistics:

- Requires a single delivery device
- Pilfering of DMPA-IM syringes at the facility level is often raised as an issue
- All-in-one feature is hypothesized to reduce the chance of stockouts, with all other supplies/logistics challenges being equal
- A reduction in stockouts increases access during client visits and reduces discontinuation

Note: Simplified logistics through reduced weight and volume are factored into costing estimates.

Limited information is available on the prevalence of syringe stockouts.
DMPA-SC introduction could decrease discontinuation of family planning:

- Increasing geographic coverage of DMPA-SC would decrease the likelihood of access barriers, a cause of discontinuation
- Latest research shows women who self-inject DMPA-SC have much higher continuation rates than women who must visit a provider to obtain DMPA-SC
- Anecdotal self-reporting suggests that women experience fewer side effects with SC than IM, potentially decreasing the likelihood of discontinuation due to health concerns

More data is needed on the link between the preference for DMPA-SC over DMPA-IM and its effect on discontinuation rates
DMPA-SC introduction could lead users to **shift from other methods to DMPA-SC**

- Switching from DMPA-IM to DMPA-SC:
  - Full switch or side-by-side rollout
  - Will have implications for costs (each method has a different cost profile)
  - Will affect mCPR via the discontinuation pathway

- Switching from other methods to DMPA-SC:
  - Has cost implications
  - Will not affect mCPR

More data is needed on switching from DMPA-IM to DMPA-SC under various scenarios, and on switching from other methods.
Costs Include

Direct

- Client costs (time, transport)
- Health worker
- Commodities
- Supply chain

Indirect

- Supervision, information, communication, monitoring and evaluation, etc.
Savings and Return on Investment

Savings =

DMPA-SC Introduction:
• Cost of providing contraception at the post-introduction mCPR level and method mix

Baseline:
• Cost of providing contraception at the post-introduction mCPR level and baseline method mix

ROI: Compare savings to introduction cost
Savings and ROI Results

- Total savings by year
- Savings by source of funds and year
- Savings per user
- Savings as % of overall family planning spending
- Introduction costs by year
- Return on investment
  - Simple return on investment
  - Net present value
  - Internal rate of return
  - Payback period
Country Applications
Nigeria Context & Vision

**2017**

- Current mCPR = 15.4
- CPR goal = 36% by 2018
- DMPA-SC availability is limited in public and private facilities and concentrated in pilot/introduction states
- DMPA-SC availability is limited at the community level—junior community-level workers and PPMVs (drug shops) cannot inject/sell. Social marketing of DMPA-SC occurs on a small scale

**2021**

- Gov’t has trained public sector family planning providers in DMPA-SC
- New public sector community family planning fleet exists and provides DMPA-SC
- A large share of private sector community-level agents provide DMPA-SC
- Task-Shifting Policy expanded so that junior community-level workers, drug shops, and pharmacies provide SC
End Year mCPR
19.5% vs 18.3% without DMPA-SC

<table>
<thead>
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<th>Year</th>
<th>mCPR Existing Trend</th>
<th>Additional mCPR with DMPA-SC Introduction</th>
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<td>2021</td>
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Pathways Driving Boost, 2021

- **Reduced discontinuation, 9.8%**
  Why? Future in which DMPA-SC would reduce discontinuation due to access- and health/side-effect reasons

- **Simplified logistics, 19.1%**
  Why? Future in which access to DMPA-SC would help avert non-use of injectables due to stock-out or unaffordability of syringes

- **Public sector: increased access, 4.9%**
  Why? Future in which a community-based public sector fleet is introduced and provides/injects SP

- **Private sector: increased access, 66.2%**
  Why? Future in which the large number of pharmacies and PPMVs can legally sell and inject SP
Once introduction and scale-up costs have been accounted for, Nigeria would gain a net cumulative $49 million in savings. This represents a 61% 5-year return on investment!
Savings: Who Benefits?

- Clients will benefit most from DMPA-SC introduction and scale-up

- Largest driver of savings? Opportunity cost of client walk time and time spent at SDP
2017

- Current mCPR = 24.11
- mCPR goal = 30.56% by 2020
- Almost all public hospitals and health centers provide IM
- About 10% of religious facilities offer IM; other private sector offerings are negligible
- CHWs (ASCs) exist but don’t provide IM
- About 7% of pharmacies sell IM

2021

- All public hospitals and health centers provide SC
- 20% of religious SDPs offer SC
- 50% of other private SDPs offer SC
- At least 75% of CHWs are able to provide SC
- 25% of pharmacies sell SC
Cameroon Results: End Year mCPR

25.9% vs 24.8% Without DMPA-SC

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<th>mCPR Existing Trend</th>
<th>Additional mCPR with DMPA-SC Introduction</th>
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<td>2017</td>
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<td>2020</td>
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<tr>
<td>2021</td>
<td>24.8%</td>
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Cameroon Results:
Pathways Driving Boost, 2021

Public sector increased access, 50%
Why? Existing CHWs are allowed to provide injectables

Reduced discontinuation, 32%
Why? DMPA-SC would reduce discontinuation due to concerns regarding access and health/side effects

Simplified logistics, 3%
Why? Access to DMPA-SC would help avert non-use of injectables due to stockout or unaffordability of syringes

Private sector increased access, 15%
Why? Private sector increases injectables provision and pharmacies can legally provide DMPA-SC
DMPA-SC Use By Source, 2021

- Public hospitals: 24%
- Public health centers: 19%
- Faith-based SDPs: 8%
- Private for-profit SDPs: 6%
- Community health workers: 10%
- Pharmacy: 15%
- Drug shops/boutiques: 16%
- Other: 2%
Once introduction and scale-up costs have been accounted for, Cameroon would gain a net cumulative US$4.6 million in savings. This represents a 163% 5-year return on investment!
Clients will benefit most from DMPA-SC introduction and scale-up via reduced user fees and lower opportunity costs of client time and travel expenses.
In Summary…

- DMPA-SC is not a “silver bullet” to rapidly increase mCPR; programs still need to invest in other methods, particularly long acting and permanent methods, if increasing mCPR is a key goal.

- DMPA-SC needs to be introduced alongside progressive task sharing and self-injection policies in countries with strong networks of diverse points of service such as CHWs and drug shops.

- There are other benefits to DMPA-SC introduction, including significant reduction in out-of-pocket payments by clients, which for equity purposes should not be overlooked.
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Questions?

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