Expanding Access: Estimating the Impact of DMPA-SC Introduction

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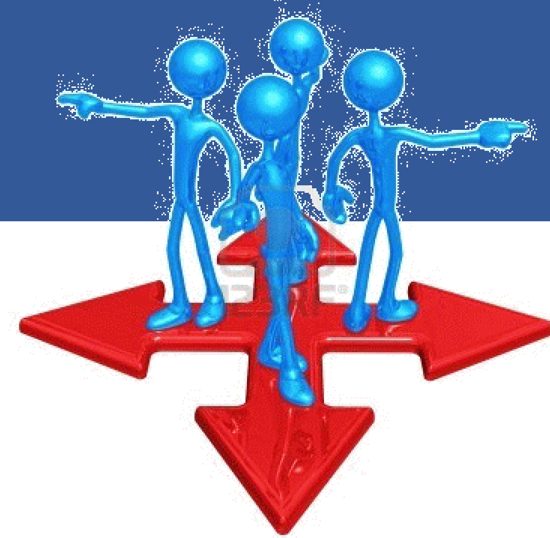
Photo by Laura Wando, WellShare International

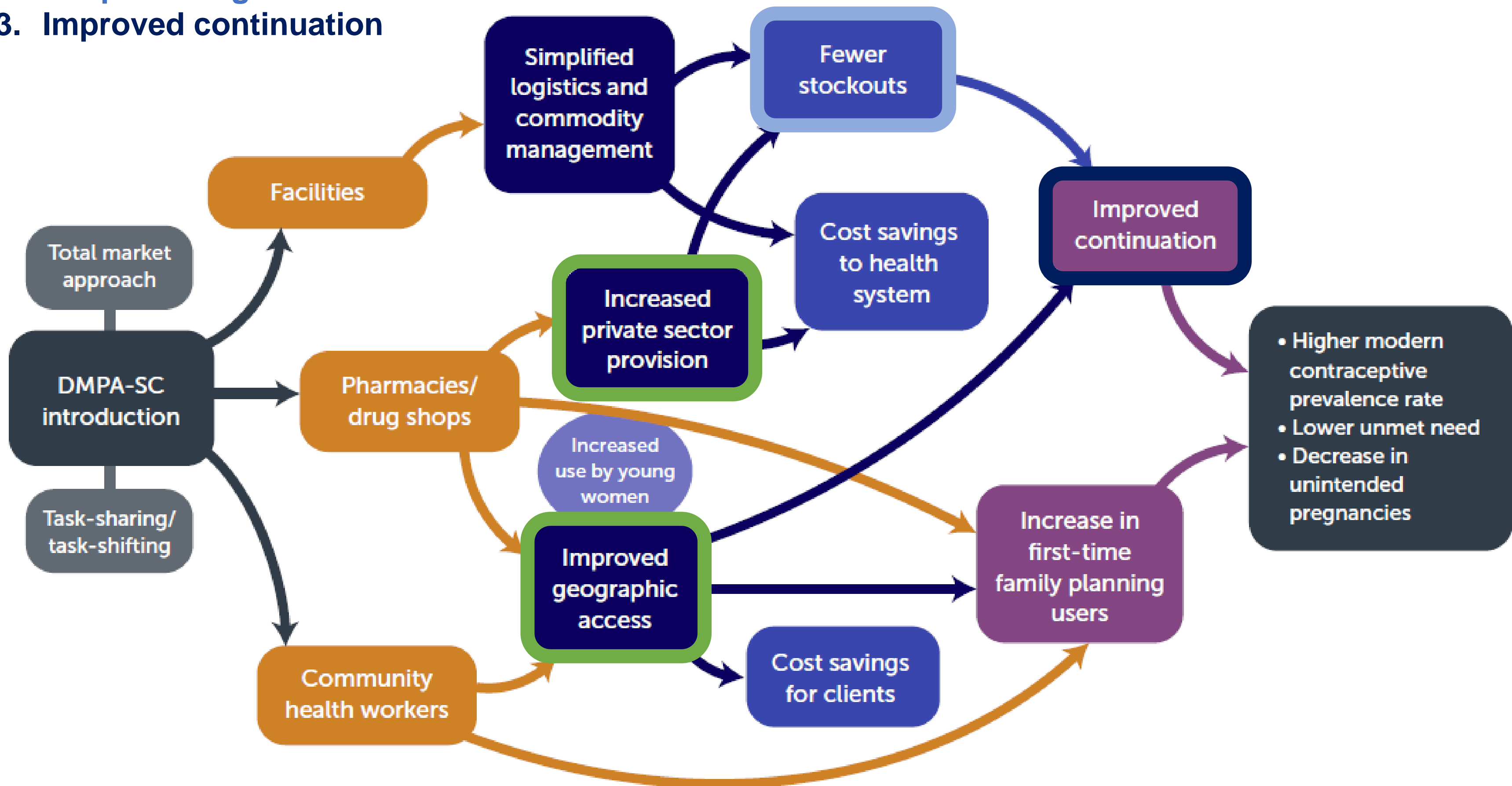
Adding DMPA-SC?



- 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

Modeling the Impact

- 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?

Potential Impact Through:
Increased Access

- 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*

Potential Impact Through:
Simplified Logistics

- 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

Potential Impact Through:
Reduced Discontinuation

- 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

Potential Impact Through:
Shifts in Method Mix Among Existing Users

- 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

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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

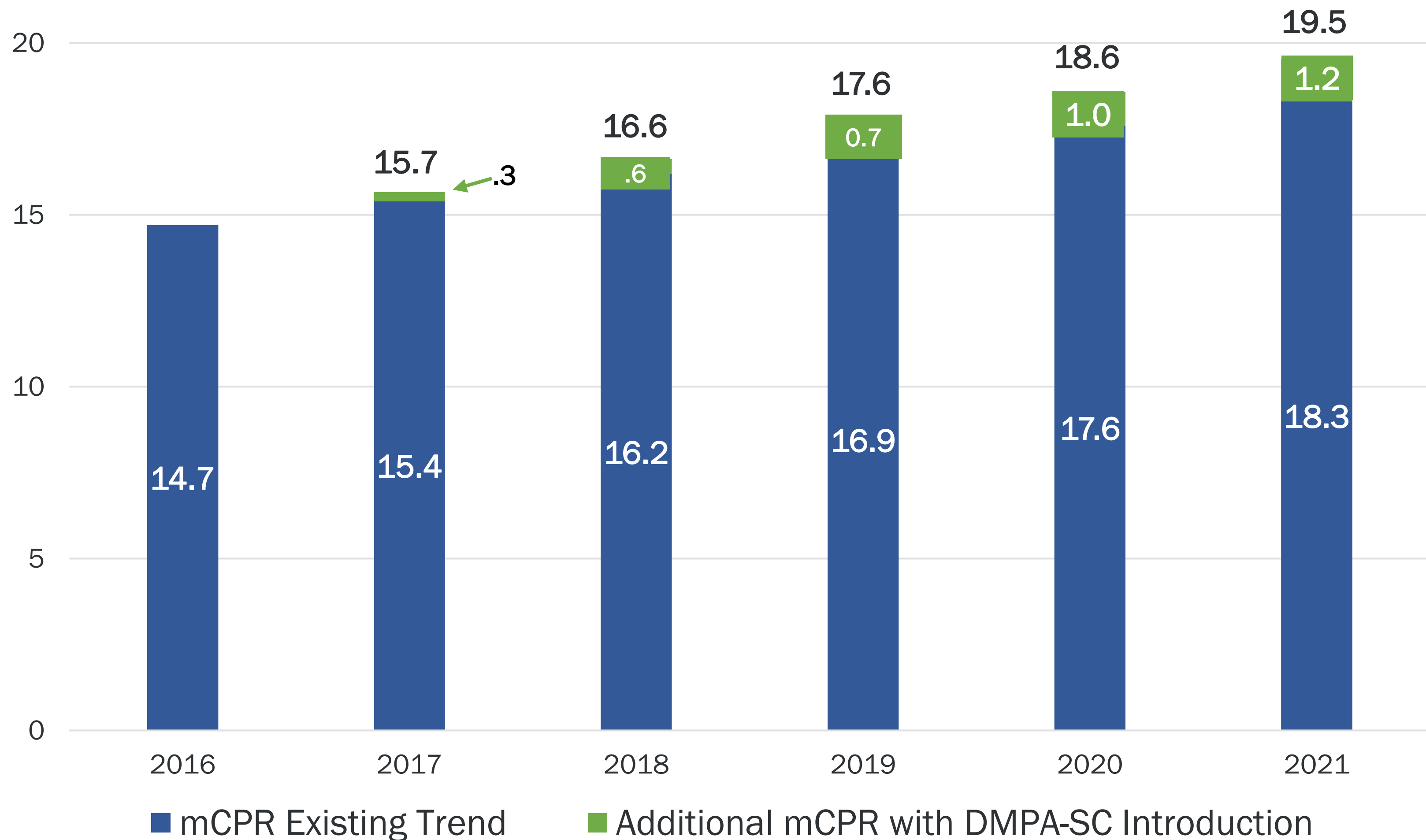
- Current mCPR = 15.4
- CPR goal = 36% by 2018
- DMPA-SC availability is limited in public and private facilities and concentrated in pilot/introduction states
- DMPA-SC availability is limited at the community level—junior community-level workers and PPMVs (drug shops) cannot inject/sell. Social marketing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

2021

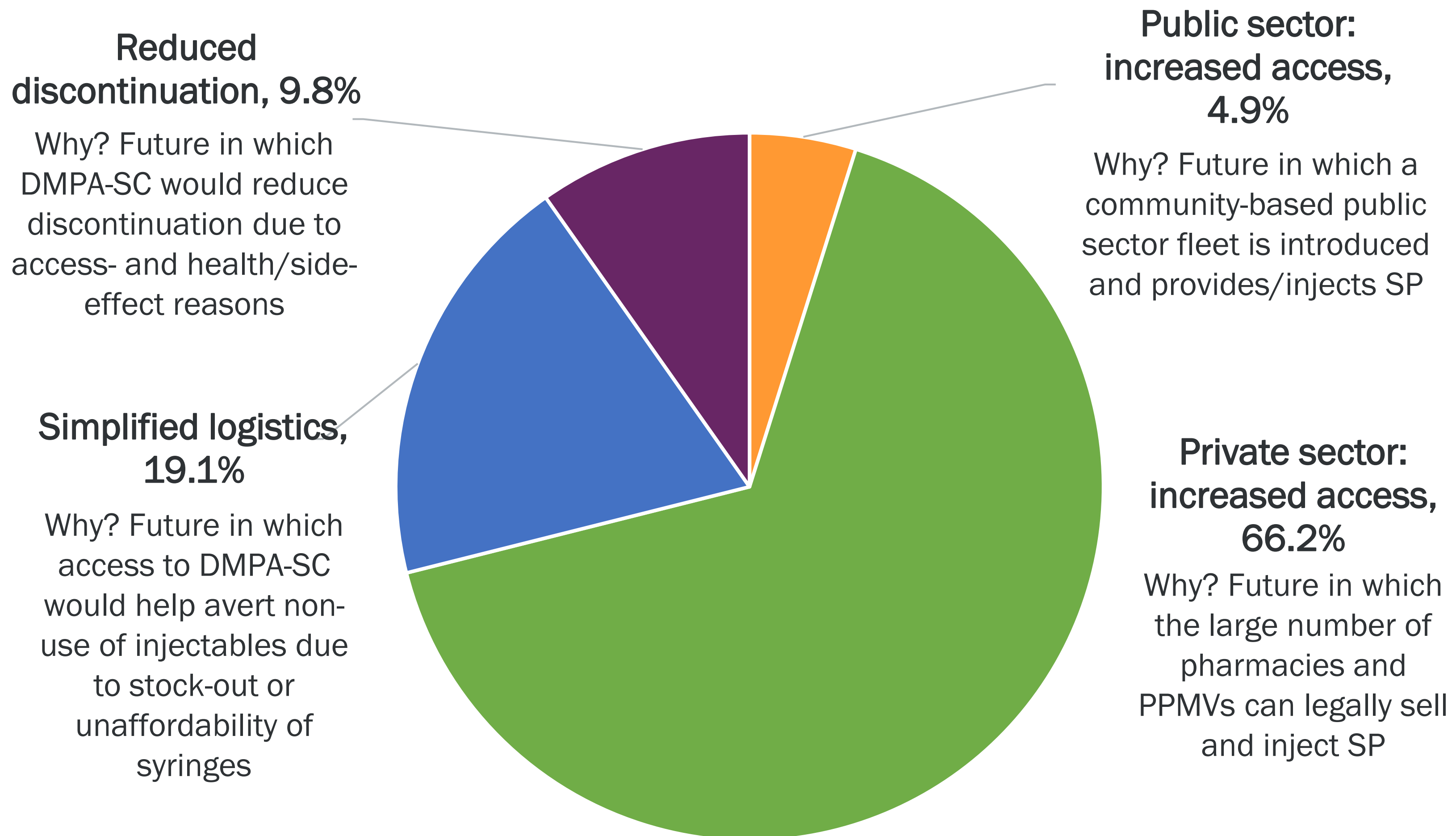
- Gov't has trained public sector family planning providers in DMPA-SC
- New public sector community family planning fleet exists and provides DMPA-SC
- A large share of private sector community-level agents provide DMPA-SC
- Task-Shifting Policy expanded so that junior community-level workers, drug shops, and pharmacies provide SC

End Year mCPR

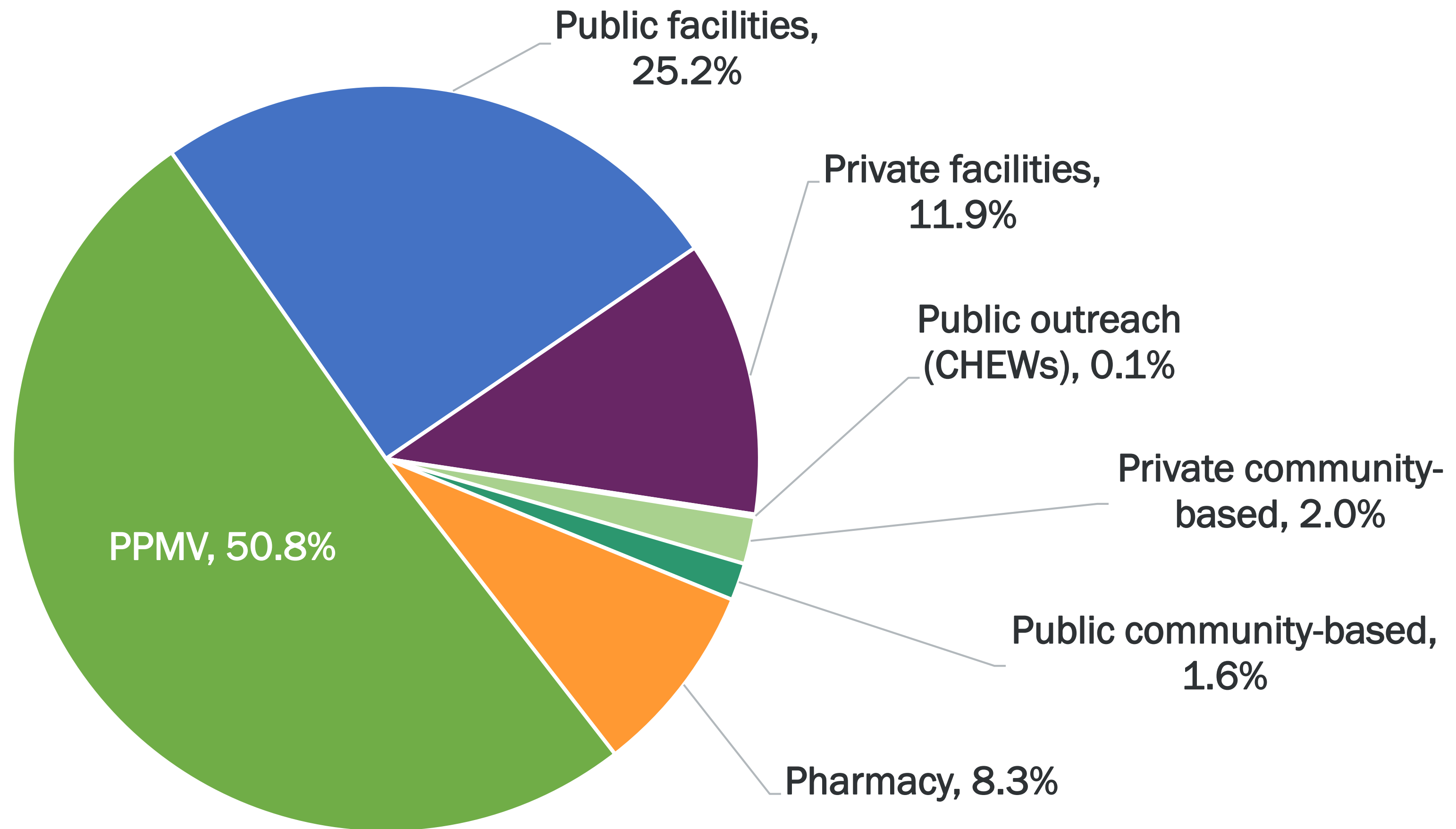
19.5% vs 18.3% without DMPA-SC



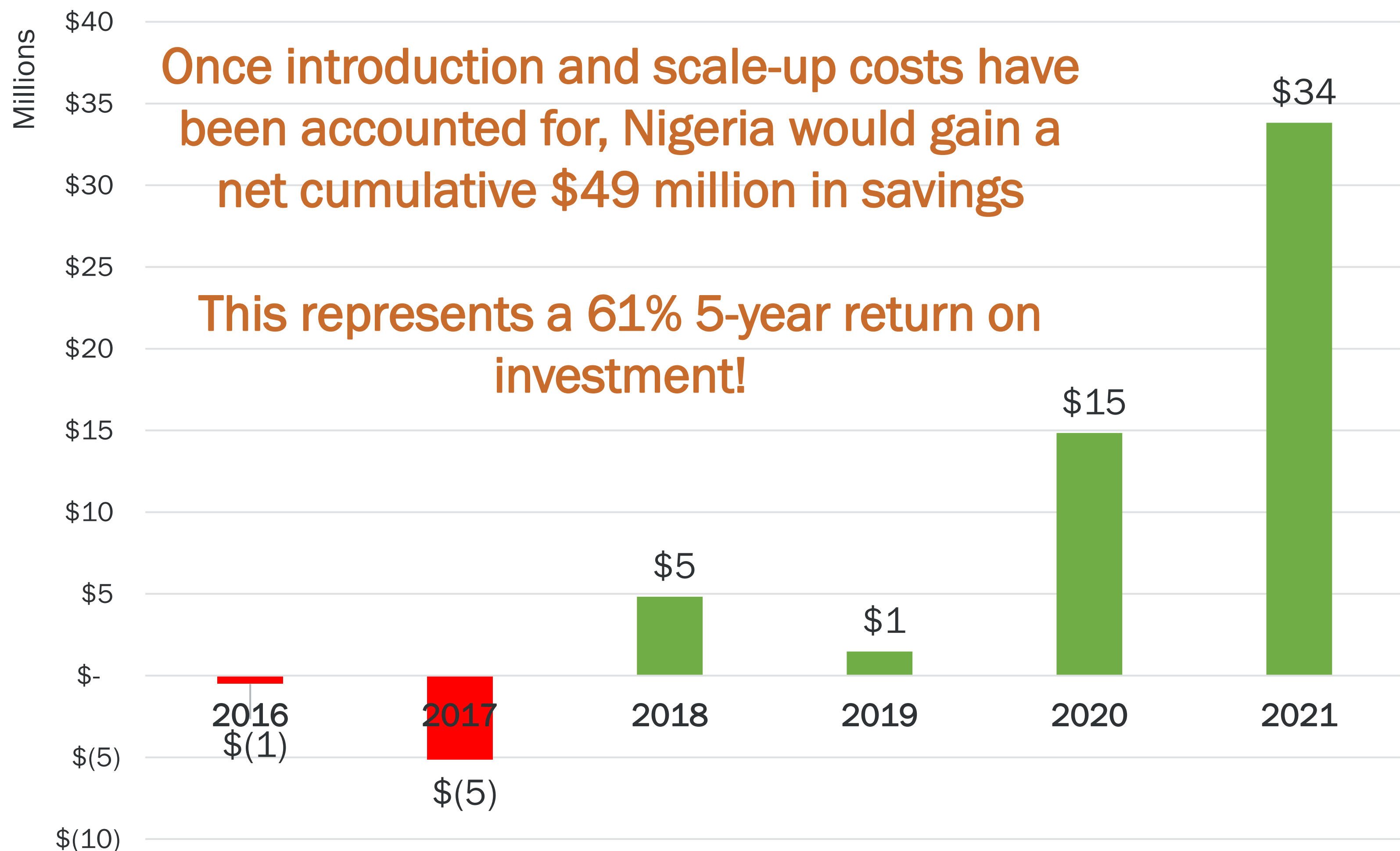
Pathways Driving Boost, 2021



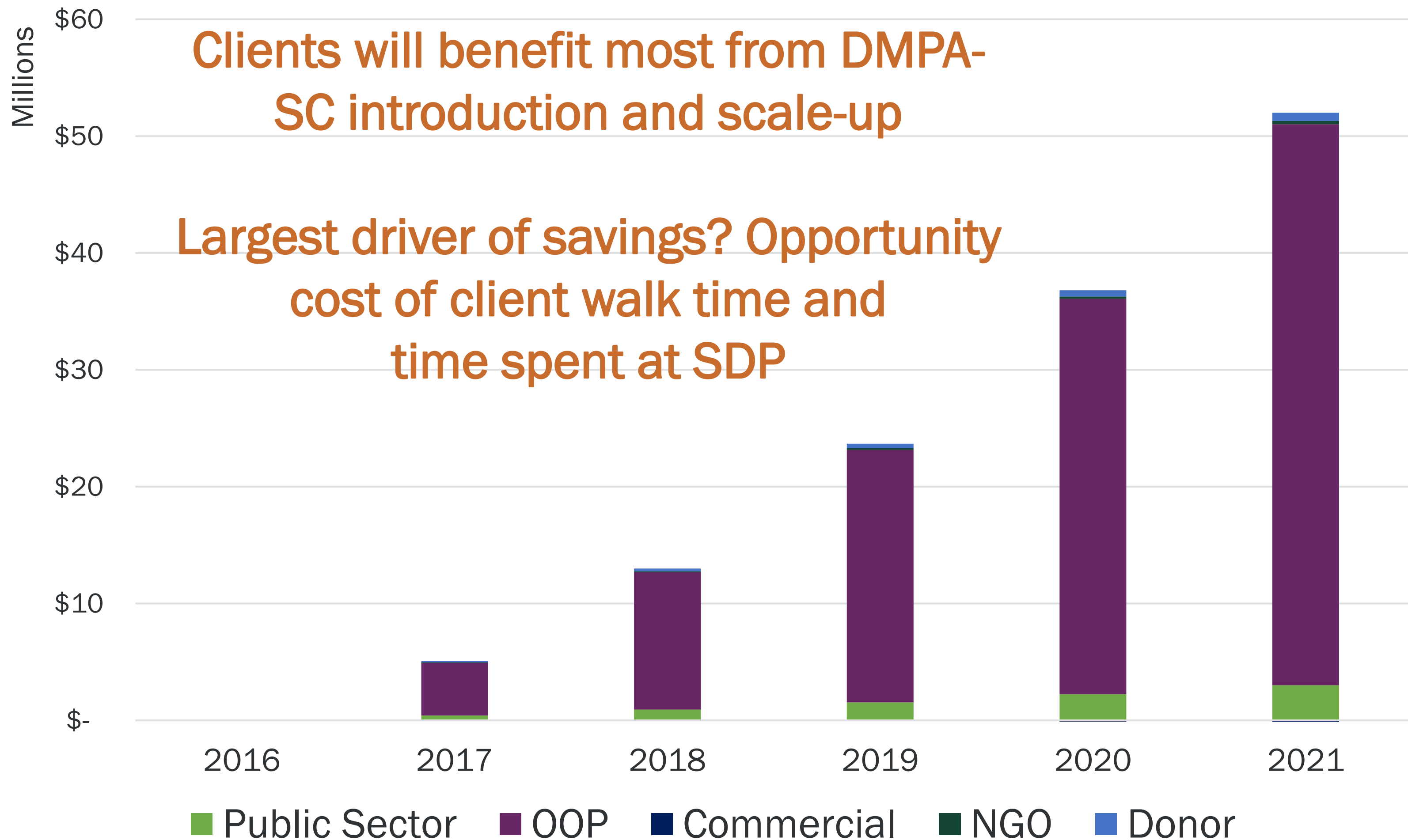
DMPA-SC Use By Source, 2021



Annual Net Cost Savings



Savings: Who Benefits?



Cameroon Context & Vision

2017

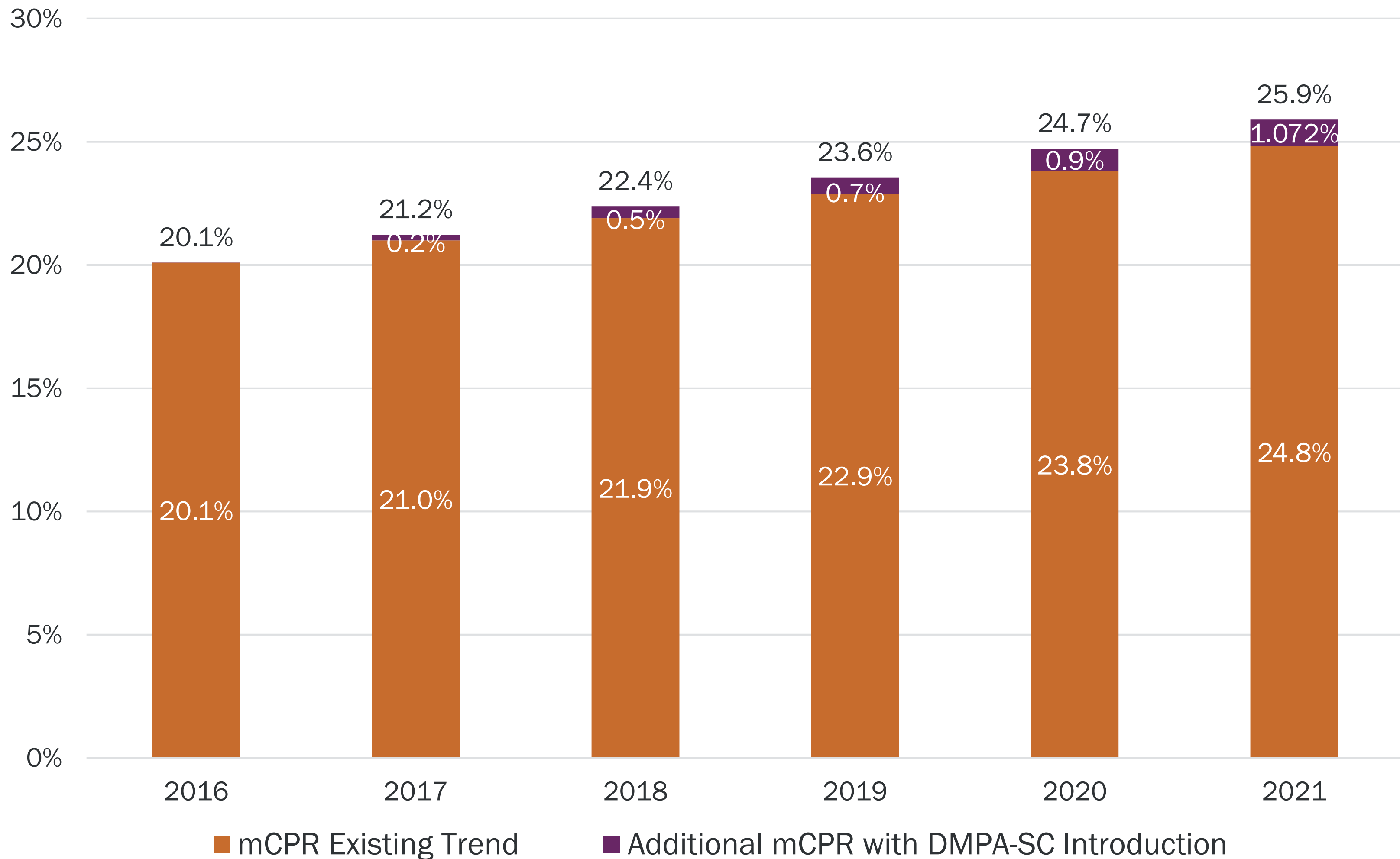
- Current mCPR = 24.11
- mCPR goal = 30.56% by 2020
- Almost all public hospitals and health centers provide IM
- About 10% of religious facilities offer IM; other private sector offerings are negligible
- CHWs (ASCs) exist but don’t provide IM
- About 7% of pharmacies sell IM

2021

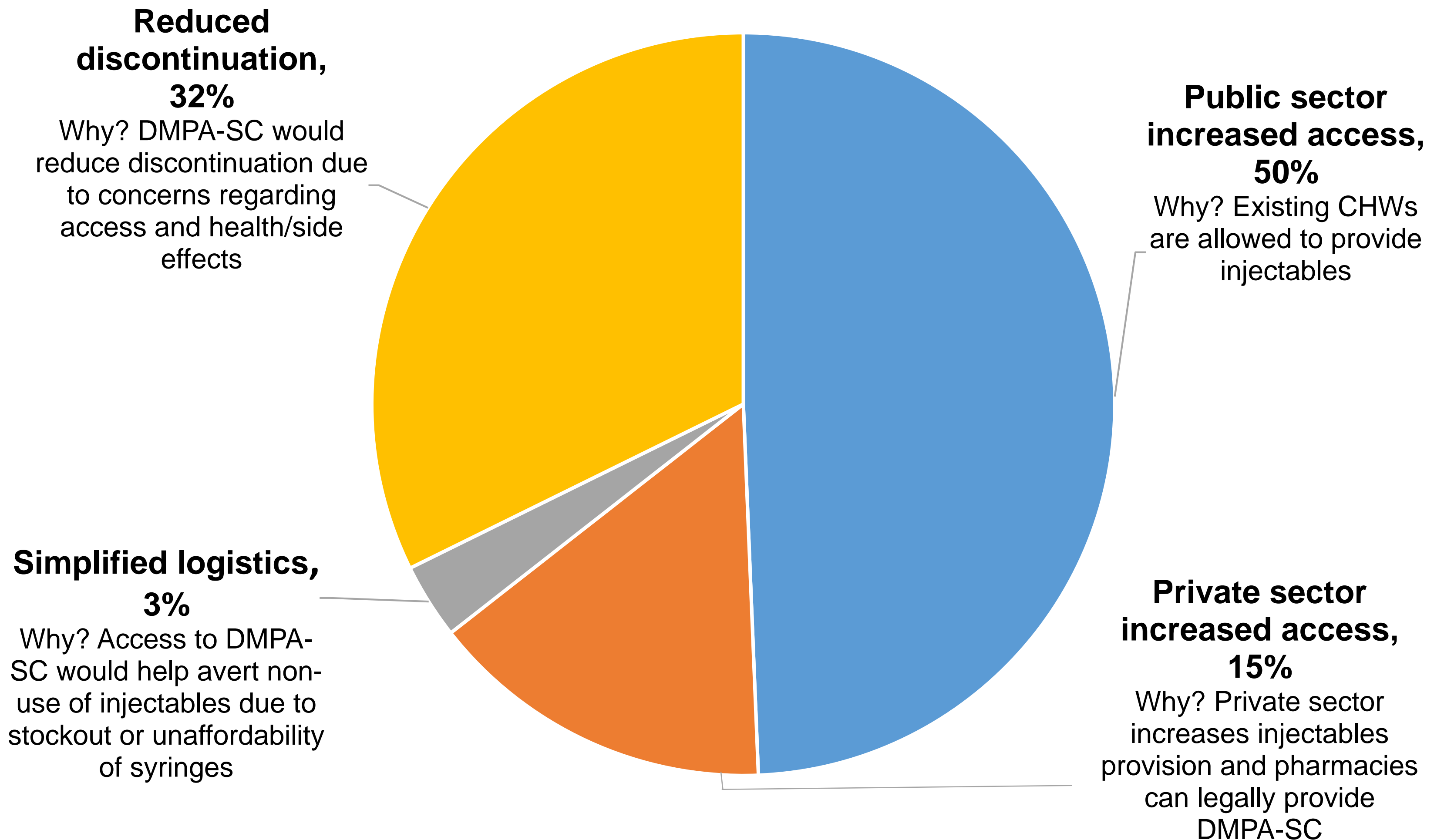
- All public hospitals and health centers provide SC
- 20% of religious SDPs offer SC
- 50% of other private SDPs offer SC
- At least 75% of CHWs are able to provide SC
- 25% of pharmacies sell SC

Cameroon Results: End Year mCPR

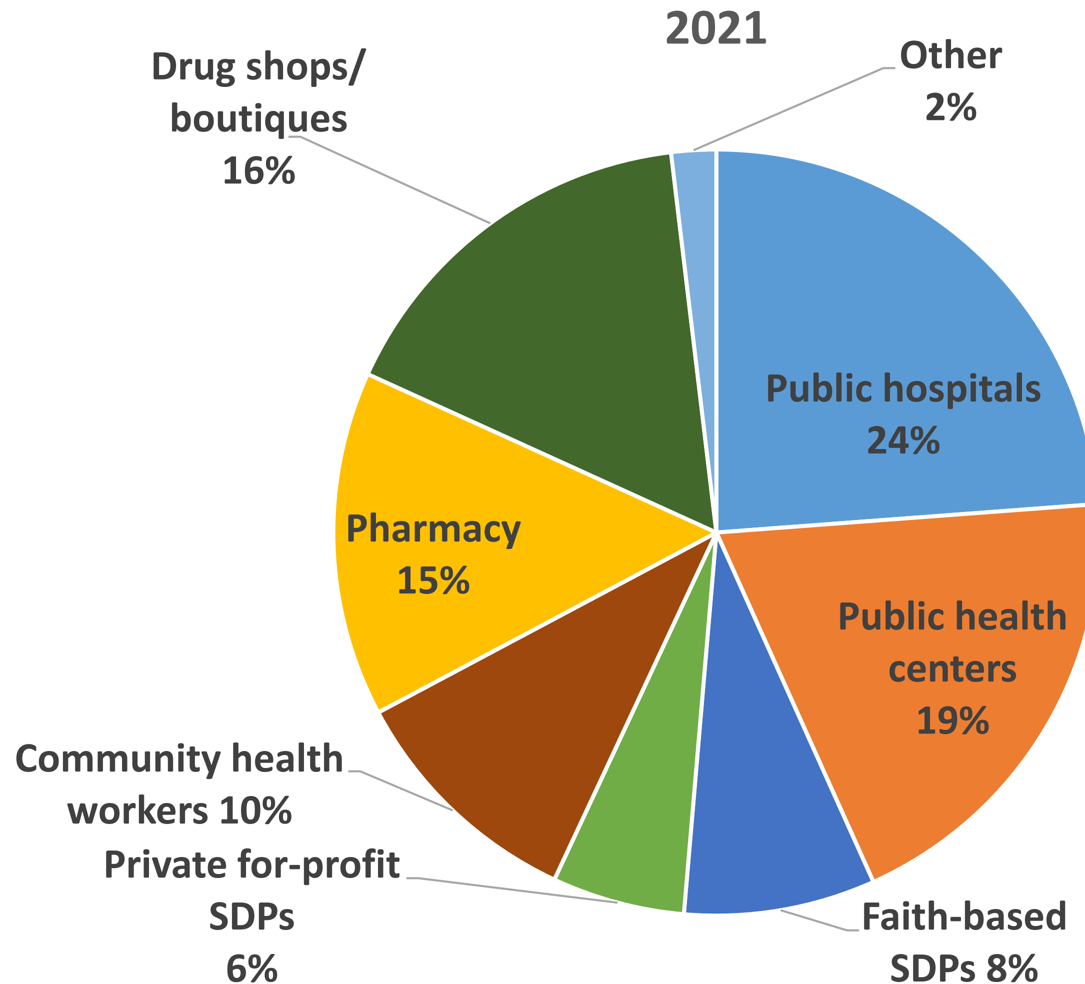
25.9% vs 24.8% Without DMPA-SC



Cameroon Results:
Pathways Driving Boost, 2021

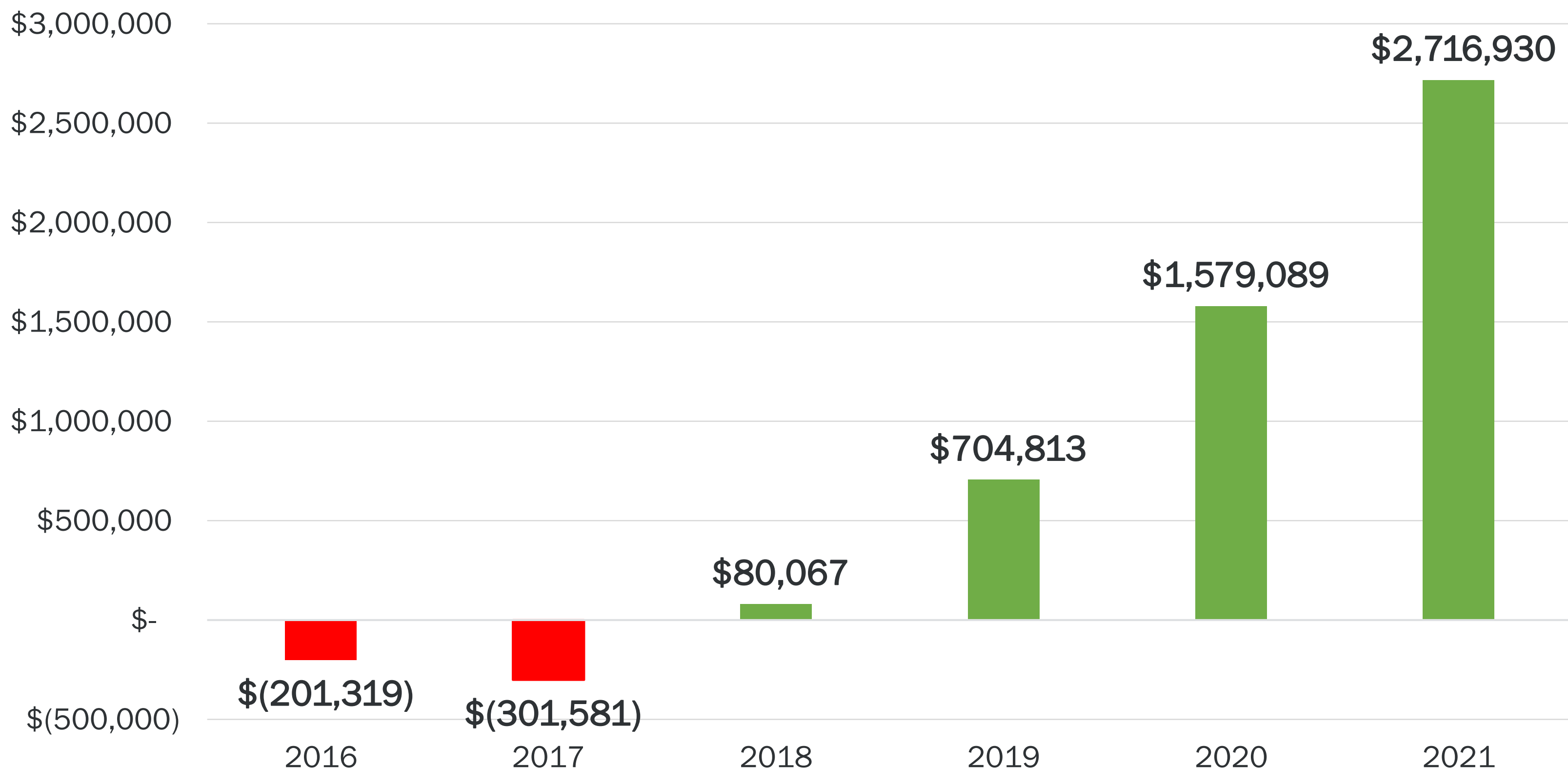


DMPA-SC Use By Source, 2021



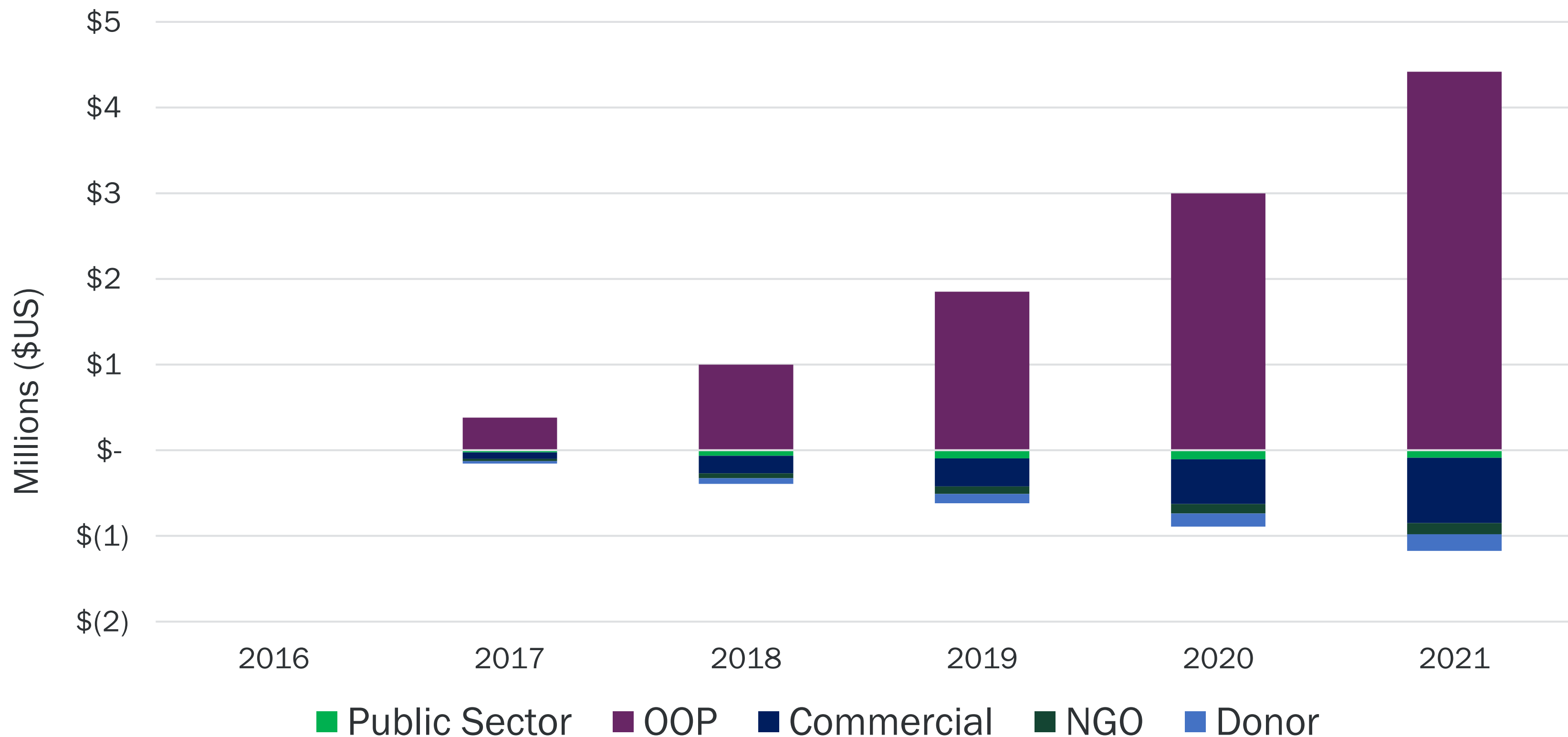
Cameroon Cost Impact:
Annual Net Cost Savings

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!



Cameroon Cost Impact:
Cost Savings by Funding Source

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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HP+

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