Expanding contraceptive service: delivery-community-based distribution of injectable contraceptives through CHWs
GOAL

Conduct a safety and feasibility assessment of a community based distribution program of DMPA (Depo Medroxy Progesterone Acetate) in two districts in Mozambique. The study aims to explore the effectiveness of training two groups of community-based agents, Agentes Polivalentes Elementares (APEs) and traditional birth attendants (TBAs), to administer DMPA.
EXPECTED OUTCOMES:

• High continuation rates, i.e., acceptance up to 3rd DMPA injection (key outcome)
• Client satisfaction
• Increased client knowledge about key information regarding to DMPA (a proxy for the quality of counseling received)
• Safety of injection administration
STUDY SITES

14-month study from February 2014 – April 2015

Figure 1. Chiure District, Mozambique

Figure 2. Montepuez District, Mozambique
METHODOLOGY

- Training of 25 APEs in the district of Chiure and 34 TBAs in Montepuez district.
- Training of one nurse per HF from the catchment area to be the supervisors and act as the link with the HF.
- 1432 women between 18 and 49 years old recruited in both districts and follow up for 12 months and receiving at least 3 consecutive doses of DMPA.
- Other women who wanted to receive DMPA in the community but did not want to enter the study received the injection.
- These same women were sent to the HF to follow
TBAs training in Montepuez

Working KIT of APEs and TBAs
1st INJECTION Enrollment questionnaire

2nd INJECTION 13 Week follow-up questionnaire

3rd INJECTION 6 Month follow-up questionnaire

13 WEEKS

13 WEEKS

6 MONTHS
RESPONSABILITIES

APEs and TBAs:
• Obtain informed consent from the clients.
• Complete the medical screening form to determine eligibility
• Assign the client an ID number so that she can be tracked for the 13 week and 26 week follow up point.
• Complete the short enrollment questionnaire.
• Administration of DMPA.

Supervisor nurses:
• Interview women in their homes for the follow-up survey at 13 weeks after the second dose of DMPA and 26 weeks after the third dose of DMPA
• Ensure that questionnaire is complete, all questions were asked, and the responses neatly and legibly recorded.
• Monthly supervision and quarterly meeting with APEs and TBAs
SUPERVISION

Supervision held at 3 levels

• Supervision by the central level (study investigators)
• Supervision by the provincial study coordination team
• Monthly supervision by nurse supervisors to the APEs and TBAs

Supervision visit in Montepuez.
TBAs receiving material
Results from the Operations Research Project
FOLLOW-UP AFTER ENROLLMENT

Enrollment questionnaires
n = 1,432

3-month questionnaires
n = 1,242

6-month questionnaires
n = 1,264

Assumed lost to follow-up
n = 190

Recovered participants
n = 22
THE MAJORITY OF WOMEN (1,432) WERE ENROLLED IN THE FIRST 4 MONTHS OF THE STUDY

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>TBA clients (n=782)</th>
<th>APE clients (n=649)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Means</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at enrollment</td>
<td>29.3±6.9</td>
<td>29.9±7.6</td>
</tr>
<tr>
<td>Number of living children</td>
<td>4.2±2.1</td>
<td>4.8±2.6</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/living together</td>
<td>655 (83.8%)</td>
<td>539 (83.1%)</td>
</tr>
<tr>
<td>Single, never married</td>
<td>52 (6.7%)</td>
<td>52 (8.0%)</td>
</tr>
<tr>
<td>Divorced/separated/widowed</td>
<td>64 (8.2%)</td>
<td>40 (6.2%)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>488 (62.4%)</td>
<td>472 (72.7%)*</td>
</tr>
<tr>
<td>Only read and write</td>
<td>38 (4.9%)</td>
<td>49 (7.6%)</td>
</tr>
<tr>
<td>Primary</td>
<td>246 (31.5%)</td>
<td>177 (18.0%)*</td>
</tr>
<tr>
<td>Secondary or higher</td>
<td>6 (0.8%)</td>
<td>6 (0.9%)</td>
</tr>
<tr>
<td><strong>Husband supportive of using DMPA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>614 (78.5%)</td>
<td>526 (81.1%)</td>
</tr>
<tr>
<td>No</td>
<td>47 (6.0%)</td>
<td>46 (7.1%)</td>
</tr>
<tr>
<td>Husband not aware</td>
<td>28 (3.6%)</td>
<td>16 (2.5%)</td>
</tr>
</tbody>
</table>

**Comparison TBA vs APE p<0.05**
*One client of the total recruited was missing provider type.*
CONTINUATION RATE WAS HIGH: 81% OF WOMEN RECEIVED THEIR THIRD CONSECUTIVE INJECTION

<table>
<thead>
<tr>
<th></th>
<th>Second injection</th>
<th>Third injection</th>
<th>Total after 3 injections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TBA clients</td>
<td>APE clients</td>
<td>TBA clients</td>
</tr>
<tr>
<td>Received Injection</td>
<td>627 (80.2%)</td>
<td>442 (68.1%)*</td>
<td>716 (91.6%)</td>
</tr>
<tr>
<td>Discontinuation (did not receive injection)</td>
<td>11 (1.4%)</td>
<td>89 (13.7%)*</td>
<td>5 (0.6%)</td>
</tr>
<tr>
<td>Lost to follow-up (includes missing data)</td>
<td>144 (18.4%)</td>
<td>118 (18.2%)</td>
<td>61 (7.8%)</td>
</tr>
<tr>
<td>Total clients at recruitment</td>
<td>782</td>
<td>649</td>
<td>782</td>
</tr>
</tbody>
</table>

*Comparison TBA vs APE p<0.05
One client was missing provider information
MOST WOMEN WHO DISCONTINUED THE METHOD WERE STILL PLANNING TO USE IT

- does not know where to get it: 0
- trying/became pregnant: 12
- side effects: 0
- using another method: 6
- reason not specified: 12
- forgot: 26
- still planning to go: 49
63% OF TBA AND 66% OF APE CLIENTS HAD NEVER USED CONTRACEPTIVES BEFORE STUDY

Type of method(s) previously used

- Other
- Depo
- Sterilization
- IUD
- Implant
- Pills
- Condoms
- None

% of women with prior contraceptive usage

APE

TBA

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THE MAJORITY OF STUDY PARTICIPANTS USE DMPA DUE TO ITS LONG LASTING EFFECT

<table>
<thead>
<tr>
<th>Women’s responses**</th>
<th>TBA clients (n=782)</th>
<th>APE clients (n=649)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More convenient</td>
<td>74 (9.5%)</td>
<td>12 (1.9%)</td>
</tr>
<tr>
<td>Fewer side effects</td>
<td>38 (4.9%)</td>
<td>157 (24.2%)</td>
</tr>
<tr>
<td>Used before</td>
<td>26 (3.3%)</td>
<td>6 (0.9%)</td>
</tr>
<tr>
<td>It is the only method I know</td>
<td>59 (7.5%)</td>
<td>38 (5.9%)</td>
</tr>
<tr>
<td>Husband allows</td>
<td>228 (29.2%)</td>
<td>129 (19.9%)</td>
</tr>
<tr>
<td>Privacy</td>
<td>14 (1.8%)</td>
<td>12 (1.9%)</td>
</tr>
<tr>
<td>It is a method that lasts longer</td>
<td>492 (62.9%)</td>
<td>391 (60.3%)</td>
</tr>
<tr>
<td>Other reason reported</td>
<td>0 (0%)</td>
<td>11 (1.7%)</td>
</tr>
</tbody>
</table>

*One client of the total recruited was missing provider type.
**Women were invited to select all that applied.
APE CLIENTS REPORTED HIGHER COUNSELING ON SIDE EFFECTS AND STI/HIV

![Bar chart showing the percentage of women reporting side effects and STI/HIV at 3 and 6 months between TBA and APE.

- Side effects at 3 months: TBA vs. APE
- Side effects at 6 months: TBA vs. APE
- STI/HIV at 3 months: TBA vs. APE
- STI/HIV at 6 months: TBA vs. APE]
MORE APE CLIENTS WERE OFFERED CONDOMS IN ADDITION TO DMPA

% of women offered condoms

- 3 months
- 6 months

TBA
APE

PATHFINDER.ORG
COMMUNITY-DISTRIBUTION OF DMPA IS SAFE: THE VAST MAJORITY OF CLIENTS DID NOT HAVE ANY MORBIDITIES AT INJECTION SITE

- None: 94% (First injection), 99% (Second injection)
- Abscess: 0% (First injection), 2% (Second injection)
- Induration: 0% (First injection), 0% (Second injection)
- Other: 0% (First injection), 0% (Second injection)

APE = Agranulocyteic Purpura and Erythema Multiforme
TBA = Tropical Burn Association
BOTH TBA AND APE CLIENTS REPORTED BEING SATISFIED WITH THE PROVIDER
THE VAST MAJORITY OF APE AND TBA CLIENTS WERE SATISFIED WITH DMPA
CLIENTS PREFER TO RECEIVE DMPA IN THEIR HOMES OR PROVIDER’S HOME

<table>
<thead>
<tr>
<th>Preferred location</th>
<th>13 Week Questionnaire</th>
<th>6 Month Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TBA clients (n=680)</td>
<td>APE clients (n=561)</td>
</tr>
<tr>
<td>Health center</td>
<td>57 (8%)</td>
<td>27 (4.8%)</td>
</tr>
<tr>
<td>Health worker’s home</td>
<td>466 (69%)</td>
<td>403 (72%)</td>
</tr>
<tr>
<td>DK/no response</td>
<td>55 (8%)</td>
<td>52 (9.2%)</td>
</tr>
<tr>
<td>Client’s home</td>
<td>102 (15%)</td>
<td>79 (14%)</td>
</tr>
<tr>
<td></td>
<td>538 (73%)</td>
<td>25 (4.7%)*</td>
</tr>
<tr>
<td></td>
<td>104 (14.1%)</td>
<td>460 (87.3%)*</td>
</tr>
<tr>
<td></td>
<td>38 (5.2%)</td>
<td>34 (6.5%)</td>
</tr>
</tbody>
</table>

*Comparison TBA vs APE p<0.05

One case is missing type of provider.
STUDY LIMITATIONS AND LESSONS LEARNED

• Follow up is problematic in areas with limited or challenging physical access
• Supervisors vs. researchers
• APE and TBA training in DMPA provision should emphasize the importance of the following:
  – Repeated client follow-up to ensure adherence to DMPA without risk of pregnancy;
  – Counseling on side effects;
  – STI/HIV counseling and condom provision;
  – Supportive supervision to ensure these strategies are carried out in each interaction between DMPA providers and clients.
CONCLUSION

• DMPA can be administered safely and effectively by APEs and TBAs. Both cadres should be considered as part of community-based family planning provision efforts.

• Administration of DMPA by APEs and TBAs increases access, particularly to first-time contraceptives users, and should therefore be a central component of family planning programs in rural areas.
RECOMMENDATIONS AND IMPLICATIONS FOR PROGRAMS

• Integrate APEs and TBAs in community-based contraceptive counseling and method provision, including DMPA injection.
• Ensure quality counseling about all methods, including dual protection, with focus on informed choice
• Reinforce APEs and TBAs counselling about the importance of visiting HF for other RH services (such as screening for other diseases and long acting reversible contraception).
• Increase facilitated supervision to ensure that community health workers provide quality services in the provision of DMPA at community level
• Adapt data collection tools to improve commodities logistics while ensuring its availability.
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