The Power of Implementation Science: Community-Based Provision of Injectable Contraceptives in Sub-Saharan Africa

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What is community-based provision of injectables?

Appropriately trained community health workers providing injectable contraceptives as part of full range of available family planning methods.
Implementation Obstacles

- Weak infrastructure and logistics
- Resistance by medical professional communities
- Reluctance of conservative health officials
- Concerns over safety
- Doubts about CHWs’ ability to screen and counsel correctly
- Questions about acceptability of CHWs offering this new service
### Implementation Science Outcome Variables

<table>
<thead>
<tr>
<th>Implementation Outcome</th>
<th>Working Definition*</th>
<th>Related terms**</th>
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<tr>
<td>Acceptability</td>
<td>The perception among stakeholders (e.g. consumers, providers, managers, policy-makers) that an intervention is agreeable</td>
<td>Factors related to acceptability: (e.g. comfort, relative advantage, credibility)</td>
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<td>Adoption</td>
<td>The intention, initial decision, or action to try to employ a new intervention</td>
<td>Uptake, Utilization, Intention to try</td>
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<td>Appropriateness</td>
<td>The perceived fit or relevance of the intervention in a particular setting or for a particular target audience (e.g. provider or consumer) or issue</td>
<td>Relevance, Perceived fit, Compatibility, Trialability, Suitability, Usefulness, Practicability</td>
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<td>Feasibility</td>
<td>The extent to which an intervention can be carried out in a particular setting or organization</td>
<td>Practicality, Actual fit, Utility, Suitability for everyday use</td>
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<td>Fidelity</td>
<td>The degree to which an intervention was implemented as it was designed in an original protocol, plan, or policy</td>
<td>Adherence, Delivery as intended, Treatment integrity, Quality of programme delivery, Intensity or dosage of delivery</td>
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<td>Implementation cost</td>
<td>The incremental cost of the delivery strategy (e.g. how the services are delivered in a particular setting). The total cost of implementation would also include the cost of the intervention itself.</td>
<td>Marginal cost***</td>
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<td>Coverage</td>
<td>The degree to which the population that is eligible to benefit from an intervention actually receives it.</td>
<td>Reach, Access, Service Spread or Effective Coverage (focusing on those that need an intervention and its delivery at sufficient quality, thus combining coverage and fidelity), Penetration (focusing on the degree to which an intervention is integrated in a service setting)</td>
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<td>Sustainability</td>
<td>The extent to which an intervention is maintained or institutionalized in a given setting.</td>
<td>Maintenance, Continuation, Durability, Institutionalization, Routinization, Integration, Incorporation</td>
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“Arc” of Implementation Research
Madagascar— 2006 Pilot

- Introduced in 13 “communes” across 4 districts
- Added to a pre-existing CBD programs

Madagascar pilot: What we measured

1. Did services conform to quality standards?
2. Did use of contraception increase?
3. How did the support mechanisms function?
4. Is CBD of DMPA acceptable?
Madagascar pilot: What we measured

1. Did services conform to quality standards?
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4. Is CBD of DMPA acceptable?
Acceptability
Zambia 2009-2011

• Collaboration between FHI 360, ChildFund, and MOH

• To measure the impact of adding DMPA provision by CHWs on uptake of FP, couple-years of protection, method mix, continuation, and cost
Zambia 2009-2011, Acceptability

- 98% satisfied with service by CHW
- 93% planned to get another injection
- 99% wanted next injection from CHW
- 98% would recommend CHW provision of injectable to a friend

Adoption
Nigeria

- Gombe State, 2009-10
- FHI 360, MOH, ARFH
- Client characteristics, uptake & safety
Injectable Uptake in Gombe State, Nigeria
Injectable Uptake in Gombe State, Nigeria

Appropriateness
Senegal

• 2011-2013 collaboration with MOH and ChildFund
• 3 districts in Thies, Kaolack, & Fatick regions
• Assessed injectable provision by matrones posted in community “health huts.”
Senegal “Appropriateness”

• Surveyed variety of community stakeholders to assess appropriateness of intervention
  – Nurse-midwives
  – District health team members
  – Women
  – Men
  – Community leaders

• Positive results used to support policy change and scale-up
Fidelity
Uganda

- Nakasongola, Uganda, 2004-5
- MOH & Save the Children
- 758 Depo acceptors followed to time of 2nd injection
- Compared CHW vs. clinic clients
Scale-up versus Pilot

Clients who received a 2nd Injection (6 mo. continuation)

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<th>Pilot CHW</th>
<th>Pilot Clinic</th>
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<tr>
<td></td>
<td>88%</td>
<td>85%</td>
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n=242
Scale-up versus Pilot

Clients who received a 2nd Injection (6 mo. continuation)

- Pilot CHW: 88%
- Pilot Clinic: 85%
- Scale-up CHW: 96%

n=242
Scale-up versus Pilot

Satisfaction with Care ("satisfied" or "very satisfied")

- Pilot CHW: 95%
- Pilot Clinic: 93%

n=328
Scale-up versus Pilot

Satisfaction with Care (“satisfied” or “very satisfied”)

Pilot CHW: 95%
Pilot Clinic: 93%
Scale-up CHW: 98%

Zambia Costs

- To determine the incremental cost per couple-years of protection (CYP) of adding injectable contraceptives to existing CBD program
Incremental costs per CYP of ChildFund FP program

- Total cost: $24,322
- DMPA CYP: 2,206

\[ \text{Total cost} = \frac{\$24,322}{2,206} = \$11.03/\text{CYP} \]

Coverage

- Feasibility
- Acceptability
- Adoption
- Appropriateness
- Fidelity
- Cost
- Coverage
- Sustainability
Kenya

• Tharaka District, 2009-10
• Collaboration with MOH, JHPIEGO, AFP
• Uptake, coverage, continuation
• Led to policy change (but only limited scale-up)
Coverage, Tharaka catchment area

Provision of injectable contraceptives by CHWs increases contraceptive coverage

Bangladesh, 1977-79*  Afghanistan, 2005-06**  Kenya, 2009-10***

- Baseline
- Follow-up

27%  9%  9%

2%  9%  46%

Sustainability
Uganda Scale-up
Uganda Scale-up
Status in Africa - 2009

- Exploring possible introduction
- Pilot initiated
- Policy dialogue underway and scale up in progress
- Policies changed

THE SCIENCE OF IMPROVING LIVES
Exploring possible introduction

Pilot initiated

Policy dialogue underway and scale up in progress

Policies changed

Afghanistan and Pakistan: CHW are providing injectable contraceptives.
Status in Africa - 2015

Exploring possible introduction
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Afghanistan and Pakistan: CHW are providing injectable contraceptives.
Thank You!