VVM Pilot Program in Colombia

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- Population: approx. 38,000
- 678 miles from Bogotá
- Remote region along Amazon River near Brazil
Vaccine Vial Monitors

- Label indicates potency of vaccine
- Purchased at $0.05 per vial
- 40% of vaccines are wasted
VMM & Vaccine Value Stream

Funding partners

VVM production partner

Vaccine manufacturing partners

Purchasing partners

Country partners

Funding

Labeling (VVMs)

Manufacturing

Purchase

Distribution

PATH

USAID

Japan BCG Laboratory

Institut Pasteur de Dakar

CHIRON

SmithKline Beecham

biofarma

unicef

Pan American Health Organization

VVM recipient countries

Non-VVM recipient countries (Americas)
Colombia

- **Population:** Approximately 48.65 million
- **Geography:** Mountainous with remote locations
- **Climate:** Warm & tropical near coast, mild in mountains
- **Infrastructure:** More developed in urban areas
- **Instability:** Current federal government relatively stable; past long-term conflicts with rebel groups
- **Regulation:** Not highly regulated
- **Power supply:** 88% rural, 100% urban
- **Security:** Current peace accord has increased stability & security; some residual hostilities remain
Supply Chain

- Initial shipments to Bogotá
- Subsequent shipments to other locations in Colombia
- Final shipping methods vary based on terrain (mostly air & ground transport)
THE “F2” INITIATIVE
The “F2” Initiative Roadmap

PHASE 1

PHASE 2

PHASE 3

PHASE 4
Phase 1
• Funding
• VMM Production
• Educating & Developing Staff

Phase 2
• Influenza Vaccination Rollout

Phase 3
• Vaccination Feedback Data
• Order & Install Cold Supply Chain
• VVM Production for Vaccinations

Phase 4
• Begin Rollout of Vaccination

The “F2” Initiative
The “F2” Initiative Deliverables

- EPS MEETS GOALS
- COLD SUPPLY CHAIN FOR THE FUTURE
- FASTER SUPPLY CHAIN TO REGIONS
- MODERN VACCINATION TRACKING
The “F2” Initiative

Cost of Influenza Vaccination VVM - $2.2 million

- Why influenza?
  - Educating health workers
    - High literacy rate – 94.5%
    - High medical education
  - Begin production of influenza VVM
The “F2” Initiative

Funding Sources
• WHO
• World Bank
• Bill and Melinda Gates Foundation
• Nonprofit NGOS
  - Give To Colombia
  - World Vision
The “F2” Initiative

- Phase 1
  - Influenza vaccination Rollout

- Phase 2
  - Focus on vaccination feedback data
  - Data analysis on Cold Supply Chain

- Phase 3

- Phase 4
The “F2” Initiative

Phase 1
- Finalize data analysis

Phase 2
- Order Cold Supply Chain from UNICEF: 3-4 weeks for order
- Install Cold Supply Chain equipment: 2-4 days per site
- Monitor and begin ordering VVM for Vaccinations
The “F2” Initiative

- Vaccination Rollout for EPS requirements
- Flexible for future vaccinations
## 2-Year Roll-Out

### Influenza Savings ($)

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<td>VVM Intervention</td>
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<td>Waste Reduction (%)</td>
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<td>0.500%</td>
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<td>Waste Reduction ($)</td>
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<td>82,030</td>
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<td>Profit (Loss)</td>
<td>$(16,205,036)</td>
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<td>Cumulative</td>
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<td>$(119,206)</td>
<td>$(75,130)</td>
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### 5-Year Scale-Up

#### TOTAL VACCINATION SAVINGS ($)

<p>| | |</p>
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<td>Profit (Loss)</td>
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Projected Outcome

7-Year VVM Pilot Program

3.5M Annual Savings By Year 7

$70,000 Cumulative Profit
Bibliography (1 of 4)


Bibliography (2 of 4)


• Vaccine vial monitors (VVMs): Applications and challenges (PDF Download Available). (2003, January 1). Retrieved from https://www.researchgate.net/publication/314284278_Vaccine_vial_monitors_VVMs_Applications_and_challenges


Appendix

1. The Conflict & Colombian Peace Accord
2. Pilot Selection Criteria
3. 5-year Comprehensive Roll-Out
4. Mumps & Pertussis in Colombia
5. Pertussis in Colombia
6. Cold Supply Chain Costs