Strengthening national capacity for evidence-based immunization policy:
The case of program costing in Honduras

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Immunization, PAHO

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Bethesda, USA
• ProVac’s Goal: strengthen national capacity to make informed, evidence-based decisions regarding vaccine introduction

• Current focus on 4 vaccines:
  • Rotavirus
  • Pneumococcal conjugate
  • HPV
  • Influenza
  • (in the future: dengue, malaria, second generation & others)
Objectives of the ProVac Initiative

Objective 1: Strengthen infrastructure and processes for decision making
- NITAG strengthening
- Legal frameworks
- South-south academic network

Objective 2: Develop tools for EE and provide training to multidisciplinary teams
- Cost-effectiveness models
- Program costing model
- Regional training workshops

Objective 3: Collect data, perform analysis and gather the framework of evidence
- Direct country support
- Methodological guidelines

Objective 4: Advocate for evidence based decisionmaking
- Results presented to authorities
- Technical reports & policy briefs

Objective 5: Support an effective & sustainable NUVI
- Costing exercises to inform new vaccine intro
Call to action...

- Institutionalizing evidence-based immunization policy
- Expanding evidence base beyond cost-effectiveness
  - Equity concerns
  - Affordability
- Promoting routine use of evidence in continuum of decisionmaking
  - Management: planning, evaluation
  - Post-introduction strategy changes
Example: Assessing the cost of routine IM in Honduras

- In context of rising program resource needs, Honduras EPI requested support to assess the cost of routine immunization
  - New vaccine introduction in 2009 and 2011
  - Expanding program
  - Challenge meeting coverage targets at sub-national level
  - GAVI-graduating

- Training meetings to conduct study
  - September 2011: study design and available data sources
  - February 2012: data collection and management
  - March 2012: data analysis and interpretation of results
  - April 2013: national dissemination of results
Sample design

Universe: 20 sanitary regions, 298 municipalities, 1458 public sector immunization providers

Stage 1: Purposive sampling of regions
Stage 2: PPP random Sampling of municipalities per region
Stage 3: Simple random sampling of Health facilities

2 CESAMO : 1 CESAR (2 URBAN : 1 RURAL)
Data collection

Recurrent and capital costs (annualized @ 3%) collected in Lempira and converted to 2011 US$

Bottom up
- Vaccines and supplies
- Human resources
- Cold chain
- Buildings
- Vehicles

Top down
- Meetings
- Office materials
- Per diems, travel allowances

Encuesta a las instituciones vacunadoras del PAI de Honduras (CESAMO lider): R1M1F1-5711

Esta encuesta es usada para identificar información del uso de recursos del Programa Ampliado de Inmunizaciones (PAI) para la administración de la vacunación en Honduras. Por favor complete los datos de forma tan precisa como le sea posible. Le recomendamos que para responder estas preguntas se base en los reportes administrativos y otros “datos oficiales” cuando se encuentren disponibles. Si no cuenta con “datos oficiales” se recomienda reportar el mejor dato o “estimación” posible por parte los expertos de su establecimiento. El Estudio de costo del PAI se realiza para 2011.

Formulario 1. Identificador para la Herramienta de Costeo del PAI

1. Nombre Establecimiento: El Porvenir
2. Dirección Establecimiento:
3. Región Sanitaria: Atlántida
4. Municipio: El Porvenir
5. Persona entrevistada:

6. Contactos claves para el seguimiento. Identifique 2 personas que puedan ser contactadas para seguimiento del presente estudio.
Viajar entre regiones

Viajar dentro de la región

Entrada de datos y envío al equipo central/internacional
EXTRAPOLATE

AGGREGATING ECONOMIC COSTS AT ALL LEVELS OF THE PROGRAM
Key results:
share of total labor costs, by level (%)
## Key results:
**total costs EPI Honduras, 2011 US$ in thousands**

<table>
<thead>
<tr>
<th>Category</th>
<th>Facility</th>
<th>Regional</th>
<th>Central</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>Vaccine</td>
<td>$0</td>
<td>$0</td>
<td>$7,320</td>
<td>$7,320 (23%)</td>
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<tr>
<td>Labor</td>
<td>$15,404</td>
<td>$1,800</td>
<td>$449</td>
<td>$17,653 (55%)</td>
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<tr>
<td>Volunteers</td>
<td>$713</td>
<td>$0</td>
<td>$0</td>
<td>$713 (2%)</td>
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<td>Cold chain</td>
<td>$981</td>
<td>$246</td>
<td>$42</td>
<td>$1,269 (4%)</td>
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<tr>
<td>Vehicles</td>
<td>$113</td>
<td>$115</td>
<td>$86</td>
<td>$314 (1%)</td>
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<tr>
<td>Buildings</td>
<td>$833</td>
<td>$104</td>
<td>$23</td>
<td>$961 (3%)</td>
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<tr>
<td>Other</td>
<td>$1,049</td>
<td>$1,055</td>
<td>$1,484</td>
<td>$3,589 (11%)</td>
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<tr>
<td>TOTAL</td>
<td>$19,094</td>
<td>$3,321</td>
<td>$9,404</td>
<td>$31,819 (100%)</td>
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</tbody>
</table>

*Vaccine costs are derived from traditional vaccines (BCG, MMR, OPV, DPT+Hib+HepB, etc.) prices from PAHO Revolving Fund and new vaccine prices from country GAVI copayment; also supplies are considered in this row.*
Delivery costs at health facilities (US$, 2011)

- Cost per dose delivered ranges widely
- Average (total costs/total doses): $6.40
- Lower limit in sample: $1.18
- Upper limit in sample: $33.40

<table>
<thead>
<tr>
<th>Facility type</th>
<th>OBS.</th>
<th>MEAN</th>
<th>SE</th>
<th>95CI LB</th>
<th>95CI UB</th>
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<td>$4.56</td>
<td>$0.60</td>
<td>$3.34</td>
<td>$5.77</td>
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<td>$4.16</td>
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<td>HOSPITAL</td>
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<td>1.58</td>
<td>$0.17</td>
<td>$1.23</td>
<td>$1.92</td>
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</table>
Strengthening routine use of costing assessments for program planning

- **Every 5 years:** comprehensive analysis of costs and financing to inform strategic multi-year planning (with national sample)

- **Annually:** mini-analysis of costs and financing to inform annual work plan, budget and reporting (without sampling; only updating prices and reflecting other changes to resource use and/or investment)

### Timeline

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Years 2 to 5</th>
<th>Year 6</th>
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<tbody>
<tr>
<td>Full cost analysis</td>
<td>‘Mini’ costing</td>
<td>Full cost analysis</td>
</tr>
<tr>
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<td>Multi-year strategic plan</td>
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<td>International Evaluation</td>
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</table>

**Abbreviations:**
- JRF: Joint Research Fund
- International Evaluation
- Annual Work Plan
- Multi-year strategic plan
- ‘Mini’ costing
Concluding remarks

- ProVac is the opposite to “consultants parachuting in”: it is all about capacity building at the country level

- User-friendly, adaptable tools are critical for generating data for real-time use

- New PAHO Resolution will provide guidance for the future of ProVac
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