Innovations in Data Collection for SM2015

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Outline

- Introduction
  - Design and data collection
  - Innovations in data collection
  - Challenges
  - Conclusion
Indicators

- Indicators are defined for each country according to country-specific interventions
- 2 types of indicators:
  - Coverage indicators
  - Quality indicators
- Some indicators are used as criteria to make decisions about SM2015 disbursements going forward
  - IHME provided data to inform the decisions of the countries and IDB about targets
Study design

Baseline
HH & HF Surveys

Follow-up
1
HF Surveys

Follow-up
2
HH & HF Surveys

Follow-up
3
HH & HF Surveys

Interventions commence
Salud Mesoamerica 2015 (SM2015)

• Evaluation includes:
  o Census
  o Household survey
  o Anthropometry, anemia tests, and dried blood spot samples
  o Health facility survey
  o Water quality test in Panama
  o Teen reproductive health survey in Costa Rica
Evaluation Activities

• Facility survey:
  o Questionnaire administered to facility manager
  o Physical observation
    – Equipment and inputs
    – Review of registries to detect stock-outs
  o Medical record review
    – Record quota according to the characteristics of the unit
      » Antenatal care
      » Deliveries
      » Maternal and neonatal complications
    – Selection of medical records from MoH records when possible
Training
Pilot

• Pilot the whole operation
• Analyze the process
• Revise the instruments and logistics
## Sample

<table>
<thead>
<tr>
<th>Country</th>
<th>Households</th>
<th>Women</th>
<th>Children</th>
<th>Health facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belize *</td>
<td>351</td>
<td>311</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td>41 schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Salvador</td>
<td>3,625</td>
<td>4,730</td>
<td>3,328</td>
<td>60</td>
</tr>
<tr>
<td>Guatemala</td>
<td>4,414</td>
<td>5,829</td>
<td>5,211</td>
<td>93</td>
</tr>
<tr>
<td>Honduras</td>
<td>2,999</td>
<td>3,537</td>
<td>2,993</td>
<td>90</td>
</tr>
<tr>
<td>Mexico</td>
<td>5,410</td>
<td>6,945</td>
<td>6,262</td>
<td>90</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>2,070</td>
<td>2,810</td>
<td>2,221</td>
<td>64</td>
</tr>
<tr>
<td>Panama</td>
<td>1,664</td>
<td>2,353</td>
<td>2,169</td>
<td>38</td>
</tr>
</tbody>
</table>

*LQAS*
SM2015 evaluation innovations

- Large samples in high-risk populations
- Electronic data capture on Netbooks
- Rapid, automated quality check process with prompt feedback
- Identification of health facilities visited by households
- Detailed health facility observation and medical record review
- Dried blood spot analysis
Denominator is Equally Important

Difference in Number of Households
SM2015 Census - 2010 Census
### Linkage is Crucial (contraceptive coverage)

- Modern contraceptive use among those in need
  - Interruptions in contraceptive use reflect suboptimal coverage

<table>
<thead>
<tr>
<th></th>
<th>Household</th>
<th></th>
<th>Health facility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% users</td>
<td>% interruptions</td>
<td>% with method in stock</td>
</tr>
<tr>
<td>Male condom</td>
<td>10</td>
<td>15</td>
<td>93</td>
</tr>
<tr>
<td>Pill</td>
<td>3</td>
<td>4</td>
<td>87</td>
</tr>
<tr>
<td>Injectable</td>
<td>24</td>
<td>58</td>
<td>87</td>
</tr>
<tr>
<td>IUD</td>
<td>9</td>
<td>15</td>
<td>57</td>
</tr>
<tr>
<td>Implant</td>
<td>5</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Emergency contraception</td>
<td>0</td>
<td>0</td>
<td>29</td>
</tr>
</tbody>
</table>
## Inconsistencies between household and health facility surveys

<table>
<thead>
<tr>
<th>Checks and tests during ANC</th>
<th>Household (n=400 women) (%)</th>
<th>Health facility (n=412 records) (%)</th>
<th>Difference (% points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANC in first trimester</td>
<td>47</td>
<td>8</td>
<td>39 *</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>93</td>
<td>100</td>
<td>-7 *</td>
</tr>
<tr>
<td>Fundal height</td>
<td>78</td>
<td>92</td>
<td>-14 *</td>
</tr>
<tr>
<td>Syphilis test</td>
<td>12</td>
<td>45</td>
<td>-33 *</td>
</tr>
<tr>
<td>Blood glucose</td>
<td>35</td>
<td>53</td>
<td>18 *</td>
</tr>
</tbody>
</table>

* p< 0.05
Chiapas: Continuum of Care

Uptake of Mexican Health Interventions, by Maternal Education Level

- Never attended school (N=686)
- Primary school (N=1781)
- Secondary school (N=830)
- Preparatory school or higher (N=528)
Immunization: Chiapas

Vaccination Coverage, Children 0-59 months, Weighted

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>98</td>
</tr>
<tr>
<td>Hep B</td>
<td>83</td>
</tr>
<tr>
<td>Pentavalent</td>
<td>80</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>73</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>67</td>
</tr>
<tr>
<td>MMR</td>
<td>79</td>
</tr>
<tr>
<td>All</td>
<td>40</td>
</tr>
</tbody>
</table>
Vaccination: Missed Opportunities

Missed Opportunities: Vaccination Coverage, Children 0-59 months, Weighted

- BCG: 100%
- Hep B: 98%
- Pentavalent: 93%
- Rotavirus: 99%
- Pneumococcal: 90%
- MMR: 93%
- All: 80%
**MMR coverage among children vaccinated at SM2015 facilities, by stock**

<table>
<thead>
<tr>
<th>Facility stock</th>
<th>MMR vaccination for age*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities with <strong>MMR vaccine in stock</strong> at time of survey</td>
<td>75.4% (67.5, 83.3%)</td>
</tr>
<tr>
<td>Facilities with <strong>MMR vaccine not in stock</strong> at time of survey</td>
<td>53.8% (39.7, 68.0%)</td>
</tr>
</tbody>
</table>

*Children ages 12-59 months with any vaccinations whose caregiver reported visiting a SM2015 health facility for vaccinations*
Measurement Challenges

• Household survey
  o Self-reporting and expectations

• Health facility survey
  o Are we measuring the quality of care or quality of record-keeping?

• Culture and contraception
Conclusions

• Wide disparities in health profile
• Wide variation in facilities’ capacities and functioning
• Management of facilities is a main driver
• Lots of missed opportunities
• Culture is crucial

• SM2015 will improve health
• Result-based financing is a good model
Thank You

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