ACCELERATING CHILD SURVIVAL AND DEVELOPMENT IN AFRICA (ACSD)

Debriefing on the External Retrospective Evaluation of ACSD

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on behalf of the
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Overview

1. Background and evaluation questions
2. Methods
3. Results
4. Conclusions and implications for programming
Section 1:

BACKGROUND AND EVALUATION QUESTIONS
ACSD, 2002-2005

- 11 countries in Africa
- Support from CIDA and other partners
- Implemented by MOHs, UNICEF and NGO partners

**Aim**: To reduce mortality among children less than 5 years of age

**Strategy**: Accelerate coverage with three packages of high-impact interventions, with a special focus on community-based delivery.
Three intervention packages

- Immunization “plus”  
  *(EPI + ITNs, deworming & vitamin A)*

- ANC+  
  *(Care for mother including TT, IPTp, Fe supplementation & PMTCT)*

- IMCI+  
  *(Improved management of pneumonia, malaria & diarrhea, and key family practices)*
ACSD geographic coverage

**Countries**
- 4 “high impact” Benin, Ghana, Mali, Senegal
- 7 “expansion”

**Districts**
- 16 “high impact”* (population ≈ 3 million)
- 31 “expansion” (population ≈ 14 million)

*now 18 districts, because the Upper East Region of Ghana has been reorganized and now includes 8 rather than 6 districts.
<table>
<thead>
<tr>
<th>Evaluation questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
</tr>
<tr>
<td>1. Were there changes in the ACSD “high-impact” districts?</td>
</tr>
<tr>
<td>2. Were these changes greater than in the comparison area?</td>
</tr>
<tr>
<td><strong>Impact</strong></td>
</tr>
<tr>
<td>3. Were there changes in mortality in the ACSD “high-impact” districts?</td>
</tr>
<tr>
<td>4. Were these changes greater than in the comparison area?</td>
</tr>
<tr>
<td><strong>Attribution</strong></td>
</tr>
<tr>
<td>5. Is it plausible to attribute the impact found to ACSD?</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
</tr>
<tr>
<td>6. Did ACSD implementation contribute to reducing inequities in intervention coverage or impact?</td>
</tr>
</tbody>
</table>
Section 2:

METHODS
**Evaluation design**

- **Intervention areas**
  - ACSD “high impact” countries/districts (Benin, Ghana, Mali, Senegal)

- **Comparison areas**
  - All other districts in the country, excluding major metropolitan areas

To assess an “acceleration” in coverage and impact compared to rest of country
Indicators and measures

Impact
- Under-five mortality (U5MR)
- Other mortality measures (neonatal, post-neonatal, infant)
- Nutritional status

Coverage
- For each ACSD intervention, using Countdown standards
- Includes family practices, e.g., breastfeeding, careseeking for pneumonia

Documentation of ACSD implementation

1. Are the interventions and plans for delivery technically sound and appropriate for the epidemiological and health system context?
2. Are adequate services being provided?
   - at health facility level?
   - at community level?
3. Are these services being used by the population?
4. Have adequate levels of effective coverage been reached in the population?
5. Is there an impact on health and nutrition?
6. To what extent can the impact be attributed to the program?

Additional indicators and measures:
- Under-five mortality (U5MR)
- Other mortality measures (neonatal, post-neonatal, infant)
- Nutritional status
### Table 3: Major data sources used in the evaluation

<table>
<thead>
<tr>
<th>Before ACSD</th>
<th>Benin</th>
<th>Ghana</th>
<th>Mali</th>
<th>Senegal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage</td>
<td>DHS 2001</td>
<td>DHS 1998/1999</td>
<td>DHS 2001</td>
<td>No data*</td>
</tr>
<tr>
<td>Nutritional status</td>
<td>DHS 2001</td>
<td>DHS 1998/1999</td>
<td>DHS 2001</td>
<td>No data*</td>
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</tbody>
</table>

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</thead>
</table>

### Documentation

<table>
<thead>
<tr>
<th>ACSD activities</th>
<th>Key informant interviews; administrative and summary reports</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Contextual factors</td>
<td>Key informant interviews; literature review</td>
<td>Mapping exercise conducted by KNUST; key informant interviews; literature review</td>
<td>Mapping exercise conducted by University of Bamako; key informant interviews; literature review</td>
<td>Key informant interviews; literature review</td>
</tr>
</tbody>
</table>

*A survey on IPT coverage in Senegal had a full birth history and additional sample added for the purpose of this evaluation. However, the results did not meet the data quality criteria used by the evaluation team.*
Section 3:

RESULTS
ACSD project support in “high-impact” countries

- CIDA funding (2001 to 2004/5)

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>1.5m*</td>
</tr>
<tr>
<td>Ghana</td>
<td>3.8m</td>
</tr>
<tr>
<td>Mali</td>
<td>3.7m</td>
</tr>
<tr>
<td>Senegal</td>
<td>2.5m</td>
</tr>
</tbody>
</table>

Supplemented by resources from UNICEF country offices; specific amounts not able to be estimated by evaluation team.

- Continued support in all countries

- Other, similar large-scale child and maternal health initiatives in all countries

*Funding disbursed in 2002
ACSD Implementation

**EPI+**
- Immunizations and Vitamin A supplementation implemented first and most strongly in all four countries
- ITNs started strong, but stockouts at UNICEF-Copenhagen limited provision of new nets for >1 year at crucial time

**IMCI+**
- Facility component received little support
- Community component started only in 2003
  - Many messages, some unlikely to affect child mortality
  - Community tx of pneumonia not included at scale
  - ACTs not available at community level in any of the three countries
- Interventions to address undernutrition given low priority

**ANC+**
- ACSD inputs focused on IPTp with SP and postnatal vitamin A
Coverage for EPI+ interventions before and after ACSD, in HIDs

<table>
<thead>
<tr>
<th></th>
<th>Benin</th>
<th>Ghana</th>
<th>Mali</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>51 49</td>
<td>60 80*</td>
<td>29 66*</td>
</tr>
<tr>
<td>DPT3</td>
<td>63 60</td>
<td>68 95*</td>
<td>24 73*</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>10 61*</td>
<td>65 90*</td>
<td>35 77*</td>
</tr>
<tr>
<td>ITNs</td>
<td>6 26*</td>
<td>0 58*</td>
<td>0 32*</td>
</tr>
</tbody>
</table>

Increases in coverage across the board in Ghana and Mali; Benin achieved increases for vitamin A and ITNs.

*Change was significant at p < 0.05.
Coverage for IMCI+ interventions before and after ACSD, in HIDs

<table>
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<th>Ghana</th>
<th>Mali</th>
</tr>
</thead>
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<tr>
<td><strong>Antimalarial</strong>&lt;br&gt;for fever</td>
<td>Before ACSD: 38% (&lt;small&gt;30% before&lt;/small&gt;)</td>
<td>After ACSD: 53% (&lt;small&gt;78% already high&lt;/small&gt;)</td>
<td>Before ACSD: 28% (&lt;small&gt;46% before&lt;/small&gt;)</td>
</tr>
<tr>
<td></td>
<td>After ACSD: 40% (&lt;small&gt;67% before&lt;/small&gt;)</td>
<td>Before ACSD: 54% (&lt;small&gt;50% before&lt;/small&gt;)</td>
<td>After ACSD: 48% (&lt;small&gt;36% before&lt;/small&gt;)</td>
</tr>
<tr>
<td><strong>Careseeking</strong>&lt;br&gt;for pneumonia</td>
<td>Before ACSD: 45% (&lt;small&gt;47% before&lt;/small&gt;)</td>
<td>After ACSD: 28% (&lt;small&gt;52% already high&lt;/small&gt;)</td>
<td>Before ACSD: 34% (&lt;small&gt;48% before&lt;/small&gt;)</td>
</tr>
<tr>
<td></td>
<td>After ACSD: 40% (&lt;small&gt;27% before&lt;/small&gt;)</td>
<td>Before ACSD: 11% (&lt;small&gt;28% before&lt;/small&gt;)</td>
<td>After ACSD: 28% (&lt;small&gt;44% already high&lt;/small&gt;)</td>
</tr>
<tr>
<td><strong>ORT</strong></td>
<td>Before ACSD: 32% (&lt;small&gt;34% before&lt;/small&gt;)</td>
<td>After ACSD: 39% (&lt;small&gt;53% already high&lt;/small&gt;)</td>
<td>Before ACSD: 39% (&lt;small&gt;46% before&lt;/small&gt;)</td>
</tr>
<tr>
<td></td>
<td>After ACSD: 30% (&lt;small&gt;30% before&lt;/small&gt;)</td>
<td>Before ACSD: 39% (&lt;small&gt;50% before&lt;/small&gt;)</td>
<td>After ACSD: 31% (&lt;small&gt;36% before&lt;/small&gt;)</td>
</tr>
<tr>
<td><strong>Breastfeeding</strong>&lt;br&gt;initiation</td>
<td>Before ACSD: 27% (&lt;small&gt;28% before&lt;/small&gt;)</td>
<td>After ACSD: 28% (&lt;small&gt;55% already high&lt;/small&gt;)</td>
<td>Before ACSD: 28% (&lt;small&gt;44% before&lt;/small&gt;)</td>
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<td>After ACSD: 28% (&lt;small&gt;48% already high&lt;/small&gt;)</td>
</tr>
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No coverage gains, and some significant losses, in sick child care. Exclusive breastfeeding increased in Ghana, declined in Mali.

*Change was significant at p < 0.05.
Coverage for ANC+ interventions before and after ACSD, in HIDs

Ghana and Mali improved care for childbearing women; delivery of TT and postnatal vit A benefited from EPI system in Mali.

*Change was significant at p ≤ 0.05.
** Measured level was 28%, but country team reported this was incorrect as IPTp had not been implemented in 2001.
Research question #1:
Increases in coverage in ACSD HIDs?

- **Benin**
  - **Yes** for ITNs and vitamin A supplementation
  - **No** for all other ACSD interventions

- **Ghana and Mali**
  - **Yes**, especially for EPI and other interventions delivered through outreach or campaigns
  - **No**, especially for case management of diseases that cause ≈ 60% of child deaths (pneumonia, malaria, diarrhea)
  - **Mixed** results for infant feeding practices
Research question #2:
Were coverage gains greater in ACSD HIDs than in the national comparison area?

Interventions for which coverage accelerated or decreased more rapidly in HIDs than in comparison area*

<table>
<thead>
<tr>
<th></th>
<th>EPI+</th>
<th>IMCI+</th>
<th>ANC+</th>
</tr>
</thead>
</table>
| Benin          |      |                                      | (IPTp with SP**)
                |      |                                      | postnatal vit A       |
| Ghana          | DPT3 | antimalarials                         | IPTp with SP          |
                | ITNs | careseeking for pneumonia             | skilled attendant at  |
              |      |                                      | postnatal vit A       |

ACSD accelerated coverage for EPI and other interventions delivered through outreach and campaigns, **BUT**

ACSD HIDs lost ground relative to the comparison groups in the management of childhood illness.

<table>
<thead>
<tr>
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<th>IMCI+</th>
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<tr>
<td>Benin</td>
<td>DPT3</td>
<td>exclusive breastfeeding</td>
<td>IPTp with SP</td>
</tr>
</tbody>
</table>
<pre><code>            |      |                                      | postnatal vit A |
</code></pre>
<p>| Mali           |      |                                      |               |
| DPT3 |                                    |               |
|      | exclusive breastfeeding              |               |
| Ghana          |      |                                      |               |
|      |                                      |               |</p>

*Coverage for interventions not included in table were not different in the two areas at p ≤ 0.05 for difference in differences

**Baseline rate in HIDs assumed by country team to be an error.
Research question #3:
Under-five mortality in the ACSD HIDs

<table>
<thead>
<tr>
<th>Country</th>
<th>Before</th>
<th>After</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>141</td>
<td>123</td>
<td>↓13% (ns)</td>
</tr>
<tr>
<td>Ghana</td>
<td>107</td>
<td>86</td>
<td>↓19% (p=0.08)</td>
</tr>
<tr>
<td>Mali</td>
<td>260</td>
<td>197</td>
<td>↓24% (p&lt;0.05)</td>
</tr>
</tbody>
</table>

Note: Decrease in under-five mortality (per 1000 live births)
Research question #4:
Under-five mortality in the ACSD HID s and national comparison areas

Before After Before After Before After

Under-five mortality (per 1000 live births)

High-impact districts  Comparison area

Benin
Before: 141  After: 145
Ghana
Before: 123  After: 109
Mali
Before: 260  After: 248

July 1999-June 2000
January 2004-December 2006
July 1998-December 2001
January 2004-July 2007
July 1998-December 2001
July 2003-December 2006
Research question #5: Is it plausible to attribute the accelerated mortality impact found to ACSD?

- Benin: *No impact found*
- Ghana: Unknown
- Mali: *No impact found*
Section 3:
DISCUSSION
Limitations of a retrospective evaluation

- Choice of high-impact districts was not random or consistent across countries
- Post-hoc construction of comparison groups
- Limited availability of high-quality survey data
  - Data quality issues in Senegal
  - Small sample sizes at baseline in Benin & Ghana
  - No direct mortality comparison for Ghana
- Documentation of implementation and contextual factors based on reconstruction rather than real-time monitoring
- No opportunity to refine implementation in response to early findings
How can we explain the results?

1. Policies; results-based planning
2. Provision
3. Utilisation
4. Effective coverage
5. Impact
6. Attribution
Strengths
- Clear priorities; packages that contributed to policy change in all countries
- Focus on results
- Focus on community delivery
- Focus on ITNs (early!)

Weaknesses
- Not focused enough on proven interventions with large and rapid effects on major killers: pneumonia, diarrhea, undernutrition
- ACSD predated global recognition of importance of neonatal deaths and evidence on interventions to prevent them
**Provision; ACSD implementation**

### Strengths
- Efforts to work at community level

### Weaknesses
- Major commodity problems (ITNs, ACTs for malaria)
- Community workers undersupported
- Monitoring efforts spotty and results rarely used to improve program
Coverage

**Strengths**
- Important gains in coverage for interventions delivered through outreach or campaigns
- Demonstration in Mali that improvements in equity are possible

**Weaknesses**
- Few gains and some losses in tx for pneumonia, diarrhea, malaria, feeding practices
**Strengths**

- Important mortality reductions in HID in Ghana and Mali

**Weaknesses**

- No measurable acceleration of mortality decline greater than national comparison areas
Why didn’t coverage gains in Ghana and Mali translate into reductions in mortality?

- Gains in comparison areas were much greater than expected
  - *E.g.*, Major initiatives throughout Mali with activities similar to ACSD (measles campaigns, SIAN)
- Even within HIDs, governments and partners were undertaking MCH initiatives at the same time (a good thing!)
  - *E.g.*, Large-scale nutrition programs by GoG and USAID/UNICEF/others from 2000 - 2003
Conclusions and implications: EPI programs

- EPI a foundation of ACSD efforts
  - Starting point for acceleration in all “high impact” countries
  - Intensified links to communities through intensified defaulter tracing, outreach & special immunization days
  - Significant gains in coverage of interventions delivered through campaigns & outreach

In Mali, ANC services & ITNs were delivered at community level as part of routine EPI outreach activities.
1. Intervention coverage CAN be accelerated if there is adequate funding & human resources.

2. Acceleration of mortality declines require:
   a) **Focus** on interventions that have a large and rapid impact on major causes of child death
   b) **Sufficient time** to fully implement approach and for coverage to translate into declines in mortality
   c) **Reasonable expectations**, given level of resources

► Work for closer match between program resources & cause of death
► Be realistic about what can be accomplished
► Level of funding matters
3. Policy barriers prevented key ACSD interventions directed at pneumonia and malaria from being fully implemented.

4. Breakdowns in commodities and gaps in funding vitiate progress toward impact.

5. More attention and operations research needed on incentives and supports for community-based workers

► Work for policy reform as first step, where needed

► Pay attention to health systems supports such as commodities, supervision, & incentives
6. Careful monitoring with local capacity to use results is essential, and hard to do.

7. Evaluation improves programs; prospective evaluations are more cost-effective than retrospective evaluations.

8. A new paradigm for impact evaluations is needed, that takes into account the absence of true comparison groups.

► Simple, feasible & sustainable systems for monitoring & supervision are missing: local capacity needed

► Evaluations based on new paradigm can contribute to program strength
Many of these findings and recommendations are already reflected in UNICEF programming.

All are consistent with the findings of the ACSD Stocktaking Review.
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- Trevor Croft, Macro International

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