Setting Global Research Priorities for Private Sector Child Health Service Delivery: Results from a CHNRI Exercise

Catherine Clarence, Tess Shiras, Jack Zhu, Malia K. Boggs, Nefra Faltas, Anna Wadsworth, Sarah E.K. Bradley, Salim Sadruddin, Kerri Wazny, Catherine Goodman, Phyllis Awor, Zulfiqar A. Bhutta, Karin Källander, Davidson H. Hamer

Child Health Task Force, Private Sector Engagement Meeting
October 29, 2020
Agenda

• CHNRI Overview
• Background and Objectives
• Methods
• Results
• Discussion
• Call to Action
• Q&A
Meet the speakers

Catherine Clarence  
*Child Health Advisor, SHOPS Plus, Abt Associates*

Tess Shiras  
*Research Specialist, SHOPS Plus, Abt Associates*

David Hamer  
*Professor of Global Health, Boston University School of Public Health*

Malia Boggs  
*Senior Technical Advisor, Bureau for Global Health, Office of Maternal & Child Health & Nutrition, USAID*
Background and Objectives
What is CHNRI?

• Child Health and Nutrition Research Initiative

• Most commonly used methodology for health research priority setting

• Democratic, transparent approach to establishing a research agenda

• Systematic yet flexible process
What is the CHNRI process?

1. Identify and invite experts to participate in the process
2. Determine criteria against which participants will evaluate all questions submitted through step #3
3. Ask experts to submit priority research questions
4. Consolidate and refine research questions to reduce duplication
5. Send prioritization survey to experts, asking them to evaluate submitted research questions
6. Analyze results
Why focus on the private health sector for sick child care?

The private sector is a key source of sick child care

Gaps in the literature persist
Private Sector Child Health CHNRI objectives

- SHOPS Plus, Boston University, and USAID led a collaborative CHNRI process

- Objective: Set an actionable research agenda to fill evidence gaps in childhood case management delivered by the private health sector

- This exercise is the most extensive to date to define a prioritized research agenda for private sector childhood case management

Call to Action!
The onus is on stakeholders like you to realize this research agenda and help fill evidence gaps
Methods
CHNRI scope: Defining the private health sector

- For purposes of this CHNRI, private health sector includes:
  - For-profit providers
  - Non-governmental and faith-based organizations
  - Social enterprises, social marketing organizations, social franchises
  - Pharmacies, drug shops, markets
Creation of a technical advisory group

• We asked a technical advisory group of six individuals to provide additional input throughout the process

• This technical advisory group provided input into the CHNRI scope, evaluation criteria, and manuscript draft

• Selected advisory group members assisted with validation of analysis techniques
Identify and invite experts: Geographic representation

We invited 129 diverse technical experts to participate, and 89 agreed to partake.

Distribution of CHNRI Participants by Geographic Region:
- United States: 45%
- Sub-Saharan Africa: 28%
- Asia: 13%
- Canada: 2%
- Europe: 10%
- LAC: 1%
Identify and invite experts: Institutional affiliation

We invited 129 diverse technical experts to participate, and 89 agreed to partake.

Distribution of CHNRI Participants by Type of Institutional Affiliation

- Implementer: 57%
- Academic: 15%
- Multilateral: 11%
- Funder: 13%
- Ministry of Health: 1%
- Health care professional: 2%
- Health care professional: 2%
Determine evaluation criteria

Based on previous CHNRIIs, we used four evaluation categories and 11 criteria

- **Answerability (2 criteria)**
  - Ex: Does the research question have measurable outcome indicators?

- **Research feasibility (2 criteria)**
  - Ex: Is a potential study design feasible?

- **Sustainability, scalability, and equity (4 criteria)**
  - Ex: Are research results likely to result in a scalable and sustainable intervention/strategy?

- **Importance and potential impact (4 criteria)**
  - Ex: Are research results likely to strengthen quality of care in the private sector?
Ask experts to submit research questions and consolidate duplicate questions

• We asked the 89 experts to submit their ideas for priority research questions
• 38 experts (43%) submitted nearly 150 questions
• We consolidated similar questions to reduce duplication, resulting in a final list of 50 research questions
Send prioritization survey to experts

- Experts evaluated the 50 research questions in an online survey
- Experts scored each research question against the 11 evaluation criteria
- Respondents were given one month to complete the survey
Analyze results

• Calculated the Research Priority Score
  – Indicates the “collective optimism” among scorers that a research question satisfies all 11 evaluation criteria

• Weighted each evaluation criteria equally

• Disaggregated results by LMIC versus HIC location
  – Country location based on IP address at time respondent completed the online survey
Results
Completed surveys

• 55% (n=49) of participants completed the online survey
• 33 located in HICs and 16 in LMICs (Based on IP address)
• Respondents in HICs and LMICs had statistically similar rankings
Top 10 questions among all respondents

1. **Does accreditation or regulation** of private sector care improve IMCI diagnosis, treatment, and appropriateness of testing and prescription?

2. **Can supportive supervision** lead to improved **quality of care** in the private sector?

3. **What is the effectiveness of training private sector medicine vendors** to recognize, manage and/or refer **sick young infants**?

4. **Can tools** used by private providers/pharmacies/drug shops improve **adherence to child health protocols**?

5. **What are the key drivers of appropriate and inappropriate antimalarial and antibiotic prescription?**
Top 10 questions among all respondents

6. How can private sector child health data be integrated into national HIS?

7. What are the referral pathways in the private sector and what factors contribute to appropriate referrals?

8. What models of supportive supervision for child health service delivery are most cost-effective in the private sector?

9. What interventions are most effective in closing the gap between private provider knowledge and implementation of IMCI protocols?

10. What factors contribute to private provider adherence to IMCI protocols?
Questions ranked in the top 10 by low- and middle-income and high-income respondents

• **Infant & Newborn**: What is the effectiveness of training private sector medicine vendors to recognize, manage and/or refer sick young infants?

• **Quality of Care**: Can supportive supervision lead to improved quality of care in the private sector?

• **Quality of Care**: What are the key drivers of appropriate and inappropriate antimalarial and antibiotic prescription for children in private-for-profit sources of care by type of provider?

• **Quality of Care**: What are the referral pathways in the private sector and what factors contribute to appropriate referrals to or from private sector providers?

• **Quality of Care**: What factors contribute to private provider adherence to IMCI protocols?
Discussion
Global importance of this CHNRI

• Answer foundational questions to inform policies and programs

• Help countries meet SDG targets for under-five and neonatal mortality

• Leverage the important role of the private health sector in caring for sick children

• Address the paucity of evidence on effective integrated case management strategies through the private health sector

• Develop market-based approaches that can help respond to the COVID-19 pandemic and other health system shocks
Limitations

• Did not reach all relevant experts, particularly in LMICs
• Respondents’ country location based on IP address
• Relatively low survey response rate of 55%
• Long survey completion time (~1.5 hours)
Quality of care and case management adherence are highly prioritized research themes across respondents

- 4 of the top 10 questions referenced adherence to IMCI protocols and what can improve adherence
- These questions were ranked highly by participants in both HICs and LMICs
- Frequency of quality of care questions aligns with recent global visibility in this area
  - 2017 launch of global Qualify of Care Network
  - New WHO pediatric standards released in 2018 and corresponding indicators being developed in 2020
## Difference in rankings between respondents in HIC and LMICs

<table>
<thead>
<tr>
<th>Respondents in HICs were most interested in questions related to:</th>
<th>Respondents in LMICs were most interested in questions related to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Policy, regulation, and accountability</td>
<td>1. Training and supportive supervision</td>
</tr>
<tr>
<td>2. Case management adherence</td>
<td>2. Digital health and data</td>
</tr>
<tr>
<td>3. Infant and newborn health</td>
<td>3. Cost-effectiveness</td>
</tr>
<tr>
<td>4. Training and supportive supervision</td>
<td>4. Case management adherence</td>
</tr>
<tr>
<td>5. Non-clinical private sector</td>
<td>5. Scope of services</td>
</tr>
<tr>
<td>6. Scope of services</td>
<td>6. Infant and newborn health</td>
</tr>
</tbody>
</table>
### Difference in rankings between respondents in HIC and LMICs

<table>
<thead>
<tr>
<th>Respondents in HICs were most interested in questions related to:</th>
<th>Respondents in LMICs were most interested in questions related to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Policy, regulation, and accountability</td>
<td>1. Training and supportive supervision</td>
</tr>
<tr>
<td><strong>2. Case management adherence</strong></td>
<td>2. Digital health and data</td>
</tr>
<tr>
<td>3. Infant and newborn health</td>
<td>3. Cost-effectiveness</td>
</tr>
<tr>
<td>4. Training and supportive supervision</td>
<td>4. Case management adherence</td>
</tr>
<tr>
<td>5. Non-clinical private sector</td>
<td>5. Scope of services</td>
</tr>
<tr>
<td><strong>6. Scope of services</strong></td>
<td>6. Infant and newborn health</td>
</tr>
</tbody>
</table>
### Difference in rankings between respondents in HIC and LMICs

<table>
<thead>
<tr>
<th>Respondents in HICs were most interested in questions related to:</th>
<th>Respondents in LMICs were most interested in questions related to:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Policy, regulation, and accountability</strong></td>
<td><strong>1. Training and supportive supervision</strong></td>
</tr>
<tr>
<td>2. Case management adherence</td>
<td><strong>2. Digital health and data</strong></td>
</tr>
<tr>
<td>3. Infant and newborn health</td>
<td><strong>3. Cost-effectiveness</strong></td>
</tr>
<tr>
<td>4. Training and supportive supervision</td>
<td><strong>4. Case management adherence</strong></td>
</tr>
<tr>
<td><strong>5. Non-clinical private sector</strong></td>
<td><strong>5. Scope of services</strong></td>
</tr>
<tr>
<td>6. Scope of services</td>
<td><strong>6. Infant and newborn health</strong></td>
</tr>
</tbody>
</table>
Consensus that health information systems are important for future policy and practice

How can the integration of routine child health data from private sector providers (clinical and non-clinical) into national health information systems be improved and sustained?

- Ranked 1st for the evaluation criteria on “importance and potential impact to inform future policy and practice”
- Ranked 6th overall, 13th among HIC individuals, and 2nd among LMIC individuals
Call to action
Implementing the prioritized research agenda

• Integrate these research questions into:
  – Work plans
  – Learning agendas
  – Global studies
  – National priorities and goals

• Conduct implementation research to inform policies and programs on the delivery of high-quality private sector health services

• Address evidence gaps to strengthen the private health sector’s role in sick child care, reducing childhood morbidity and mortality
Setting global research priorities for private sector health service delivery: Results from a CHNRI exercise

Catherine Clarence, Tez Shrestha, Jack Zhu, Malia K Rogers, Nitra Raitai, Anna Vardarvord, Sarah Ek Eradly, Sallim Sattar, Kerri Waza, Catherine Goodman, Phyllis Ascor, Zulfiqar A Bhutta, Rama Ramanlal, David J. Hulme

Background: The private sector is an important source of child health care, yet evidence gaps persist in best practices for targeted management of private sector child health services. To improve evidence-based research on this topic, we used a Child Health and Nutrition Research Initiative (CHNRI) process to identify priority research questions in response to these evidence gaps. CHNRI is a consultative approach that identifies prioritizing research questions by evaluating these against standard criteria.

Methods: We engaged geographically and methodologically diverse experts in the private health sector and child health. High-yield experts agreed to participate and provided 150+ research questions. We consolidated submitted questions to reduce duplication to a final list of 50. We asked participants to complete an online survey to rank each question against 15 pre-determined criteria in four categories: (1) uncertainty; (2) research feasibility; (3) acceptability/requirement; and (4) impact/potential. Statistical data analysis was conducted in 2018 by CHNRI.

Results: Forty-nine participants (55.5%) completed the online survey, including 23 high-income and 16 low- and middle-income country respondents. Ten, prioritized research questions address barriers to access or quality of private sector care, and non-clinical outcomes of care overall improve integrated management of childhood illness services. Four of the top 10 research priorities were related to adherence to care management protocols. Other top research priorities were related to training and supportive supervision, digital health, and infant and young child care. Research priorities among high-income and low- and middle-income country respondents were highly correlated.

Correspondence to: Catherine Clarence
3333 Market Street, Suite 800
Toronto, Ontario, Canada

More detailed results will be available in the Journal of Global Health.
Question & Answer
Contact us:
Catherine_Clarence@abtassoc.com
Tess_Shiras@abtassoc.com
DHamer@bu.edu
Mboggs@usaid.gov