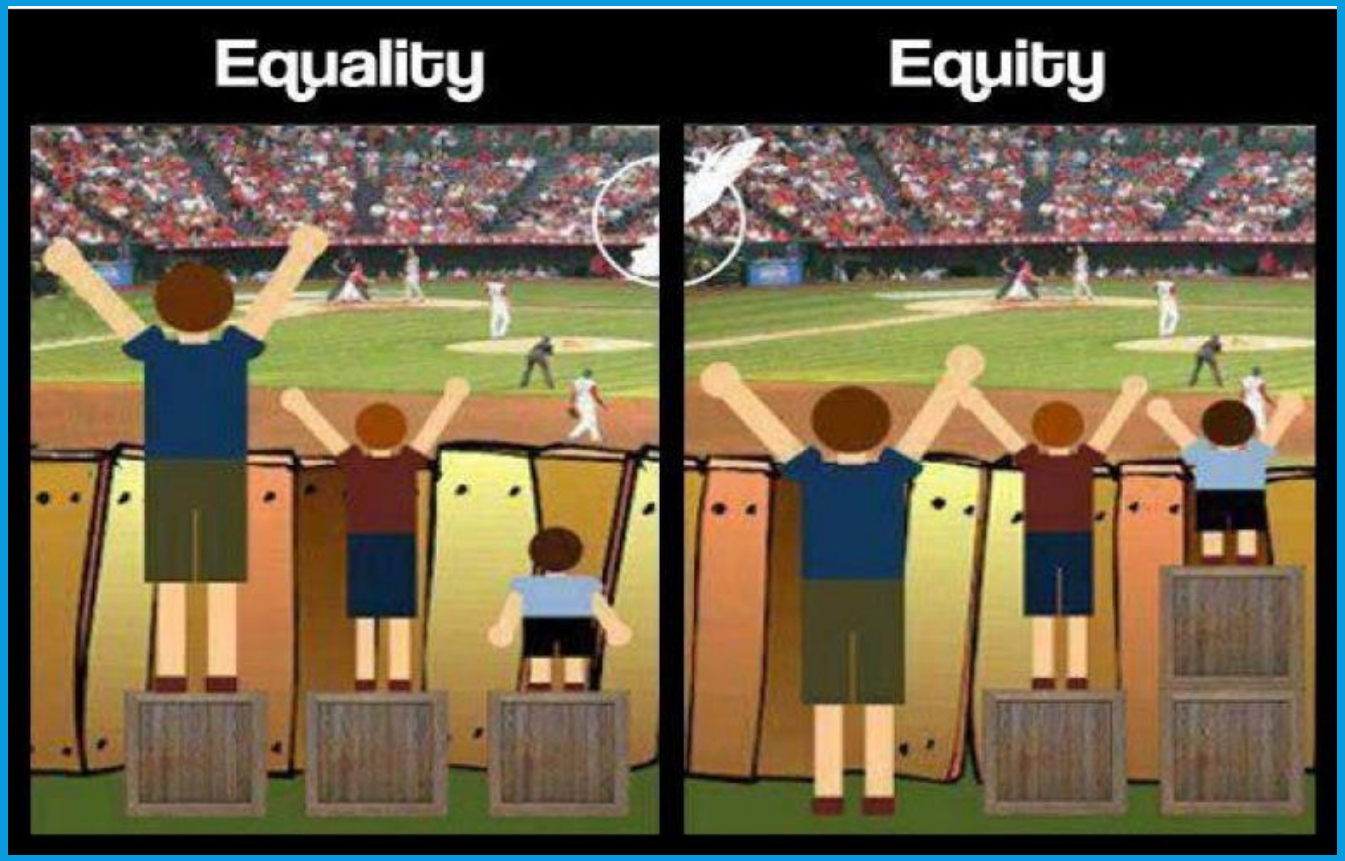
EQUIST:
Putting data to work for the most deprived

Carlos Carrera

29 March 2017

Institutionalizing Community Health Conference

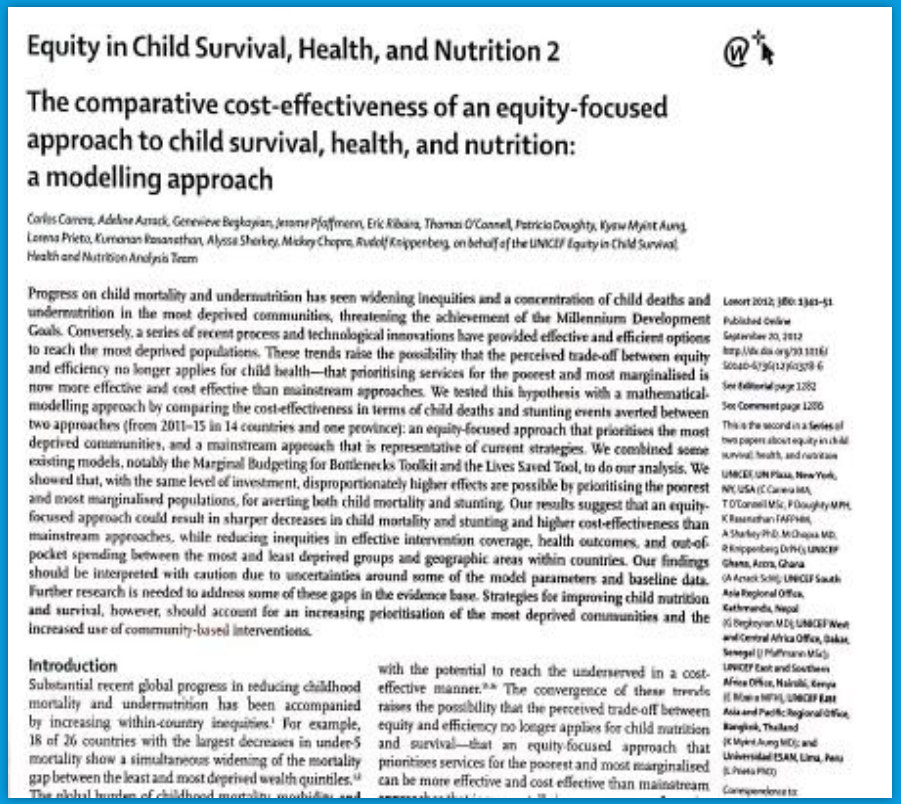
EQUALITY VS. EQUITY



Treat everyone the same way

Treat different people differently - so that there is true equality of opportunity

LANCET EQUITY 2012



Equity in Child Survival, Health, and Nutrition 2

The comparative cost-effectiveness of an equity-focused approach to child survival, health, and nutrition: a modelling approach

Carlos Correa, Adeline Asnack, Genevieve Beykoyian, Jerome Pfaffmann, Eric Ribaira, Thomas O'Connell, Patricia Doughty, Kyaw Myint Aung, Lorena Prieto, Kumanan Rasanathan, Alyssa Sharkey, Mickey Chopra, Rudolf Knippenberg, on behalf of the UNICEF Equity in Child Survival Health and Nutrition Analysis Team

Progress on child mortality and undernutrition has seen widening inequities and a concentration of child deaths and undernutrition in the most deprived communities, threatening the achievement of the Millennium Development Goals. Conversely, a series of recent process and technological innovations have provided effective and efficient options to reach the most deprived populations. These trends raise the possibility that the perceived trade-off between equity and efficiency no longer applies for child health—that prioritising services for the poorest and most marginalised is now more effective and cost effective than mainstream approaches. We tested this hypothesis with a mathematical-modelling approach by comparing the cost-effectiveness in terms of child deaths and stunting events averted between two approaches (from 2011–15 in 14 countries and one province): an equity-focused approach that prioritises the most deprived communities, and a mainstream approach that is representative of current strategies. We combined some existing models, notably the Marginal Budgeting for Bottlenecks Toolkit and the Lives Saved Tool, to do our analysis. We showed that, with the same level of investment, disproportionately higher effects are possible by prioritising the poorest and most marginalised populations, for averting both child mortality and stunting. Our results suggest that an equity-focused approach could result in sharper decreases in child mortality and stunting and higher cost-effectiveness than mainstream approaches, while reducing inequities in effective intervention coverage, health outcomes, and out-of-pocket spending between the most and least deprived groups and geographic areas within countries. Our findings should be interpreted with caution due to uncertainties around some of the model parameters and baseline data. Further research is needed to address some of these gaps in the evidence base. Strategies for improving child nutrition and survival, however, should account for an increasing prioritisation of the most deprived communities and the increased use of community-based interventions.

Introduction

Substantial recent global progress in reducing childhood mortality and undernutrition has been accompanied by increasing within-country inequities.[1] For example, 18 of 26 countries with the largest decreases in under-5 mortality show a simultaneous widening of the mortality gap between the least and most deprived wealth quintiles.[1,2] The global burden of childhood mortality, morbidity, and

with the potential to reach the underserved in a cost-effective manner.[3–5] The convergence of these trends raises the possibility that the perceived trade-off between equity and efficiency no longer applies for child nutrition and survival—that an equity-focused approach that prioritises services for the poorest and most marginalised can be more effective and cost effective than mainstream

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See Editorial page 1282
See Comment page 1285
This is the second in a series of two papers about equity in child survival, health, and nutrition

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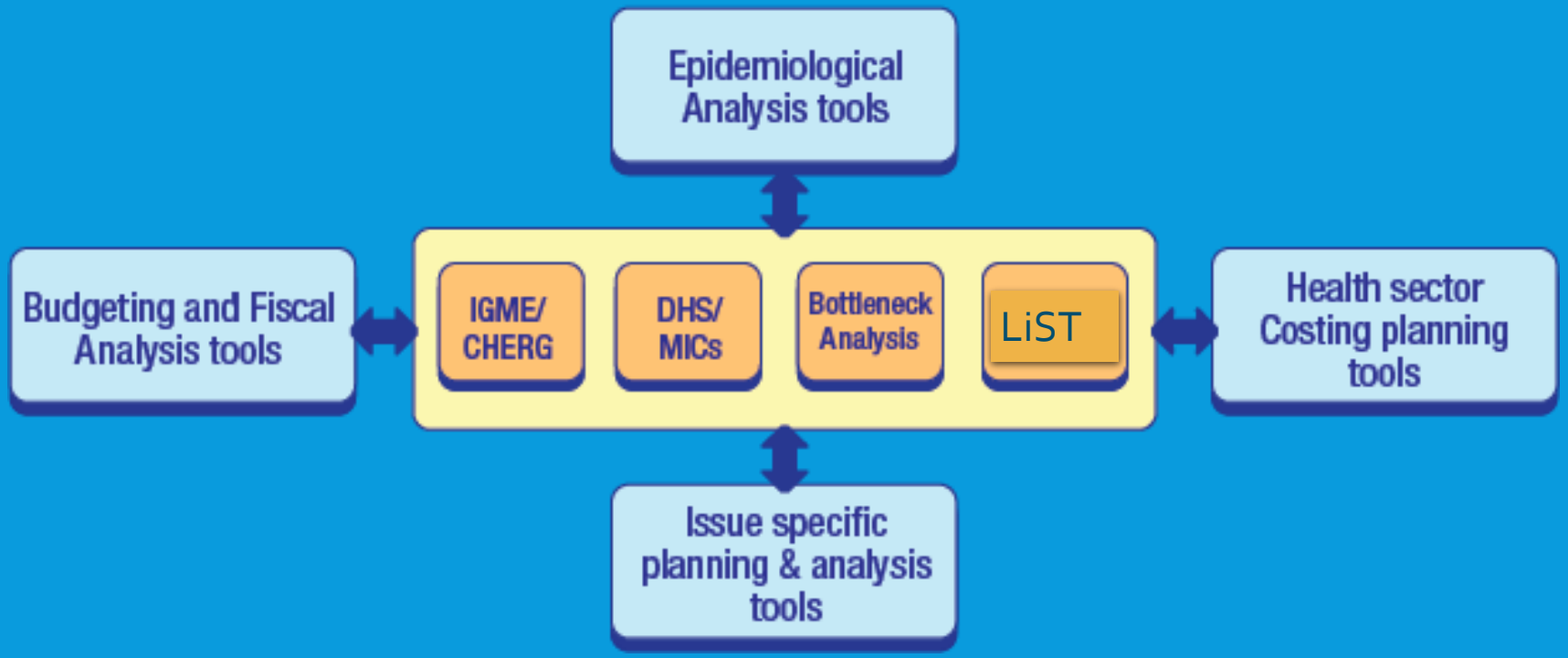
Correspondence to:

An equity focus

- Is cost effective
- Accelerates progress

EQUIST LINKS AND COMPLEMENTS EXISTING TOOLS



LIFE SAVING STRATEGIES USING A SIMPLE 7-STEP APPROACH

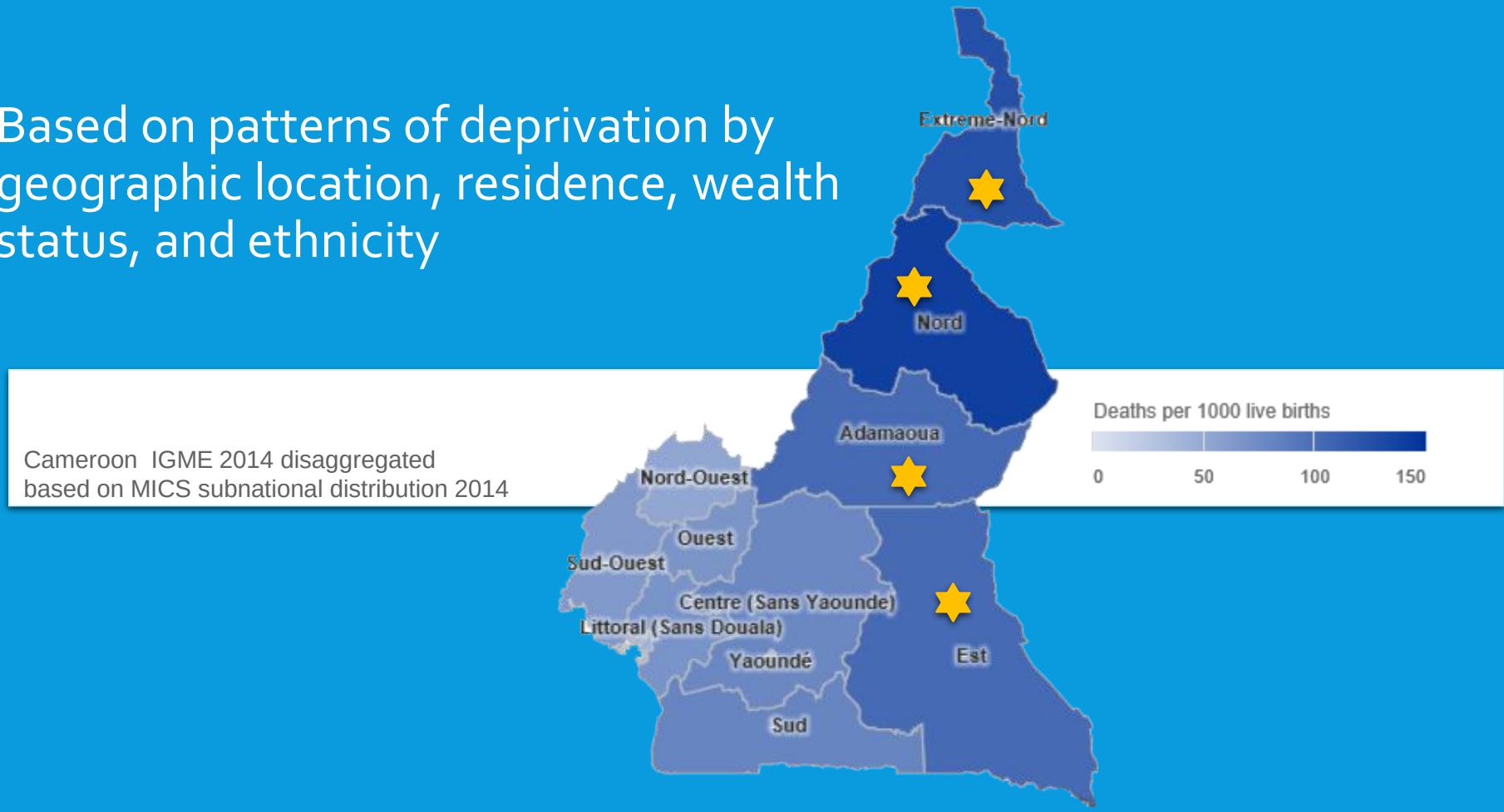
Causal analysis

1. Identify priority **populations**
2. Determine which **disease** explain inequity
3. Determine right balance **interventions**
4. Identify **bottlenecks** that disrupt service
5. Pinpoint **causes** of bottlenecks
6. Select **strategies**
7. Compare **impact and cost effectiveness** of scenarios

Theory of change

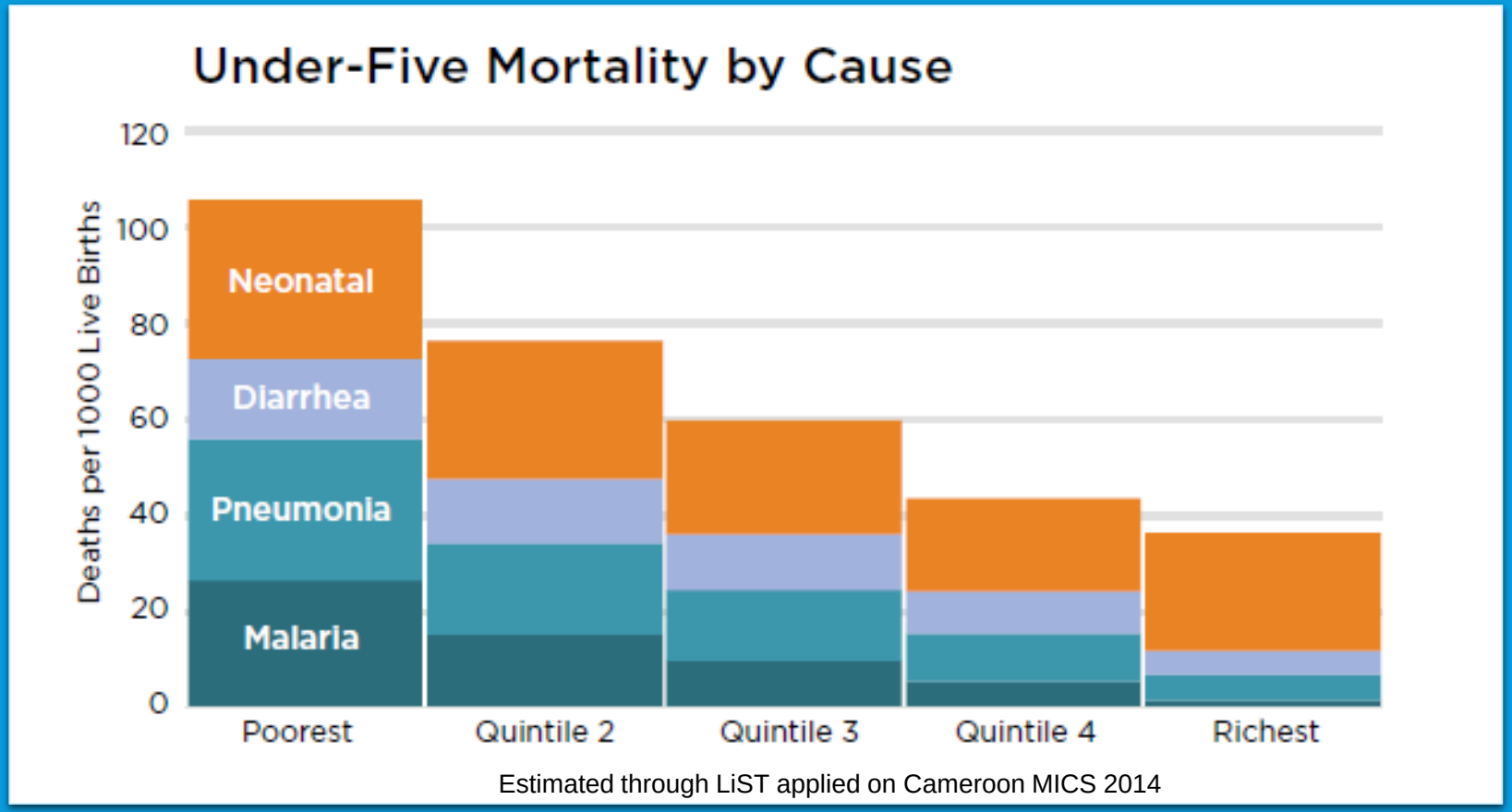
STEP 1: IDENTIFY PRIORITY POPULATIONS

Based on patterns of deprivation by geographic location, residence, wealth status, and ethnicity



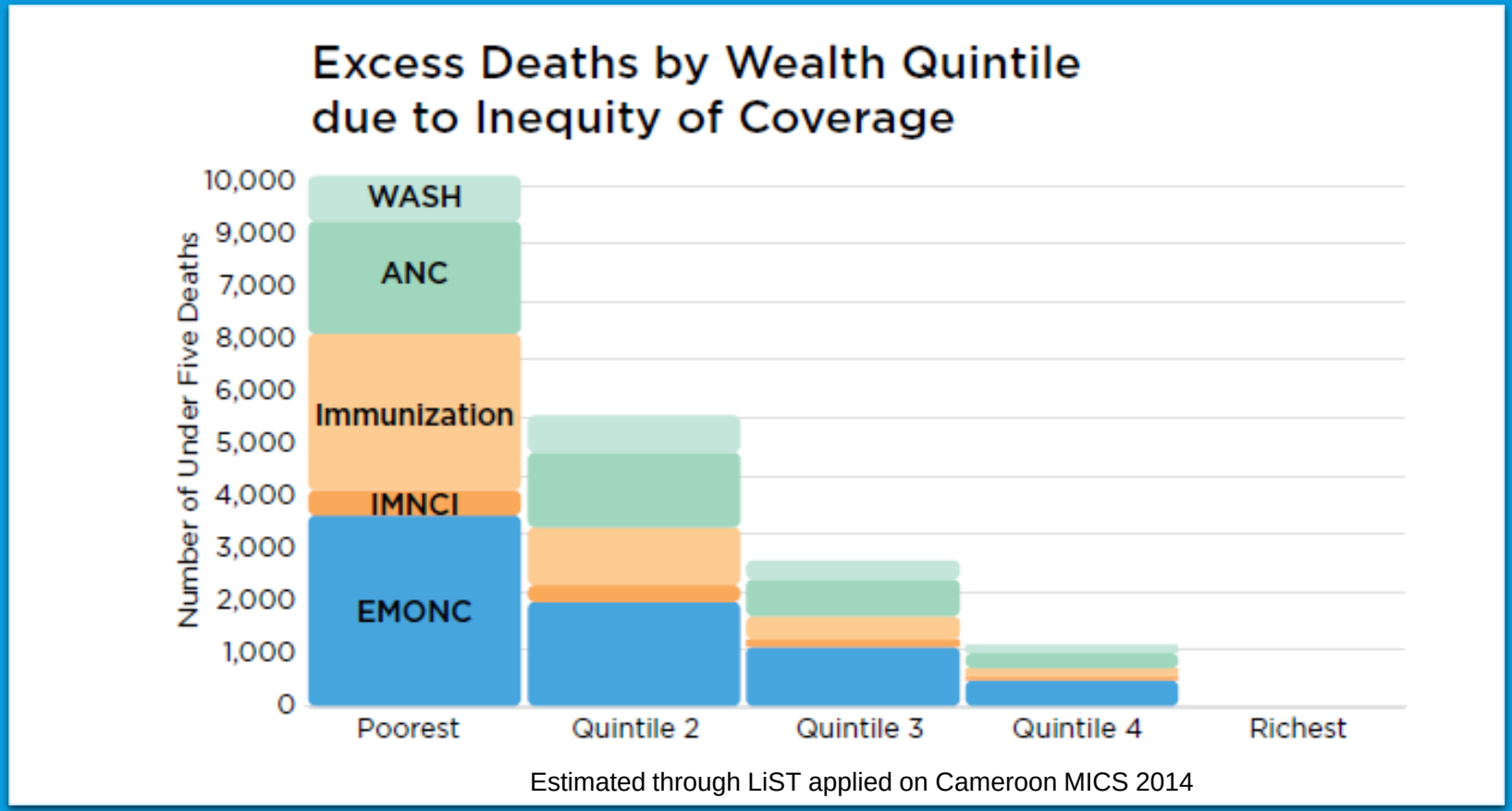
Cameroon IGME 2014 disaggregated based on MICS subnational distribution 2014

STEP 2: DETERMINE WHICH DISEASES EXPLAIN INEQUITY AMONG CHILDREN AND WOMEN



Estimated through LiST applied on Cameroon MICS 2014

STEP 3: DETERMINE WHICH INEQUITY IN INTERVENTIONS COVERAGE RESULT IN EXCESS DEATHS



Estimated through LiST applied on Cameroon MICS 2014

STEP 3: DETERMINE THE RIGHT BALANCE OF THESE INTERVENTION BY SERVICE DELIVERY MODE

Community Practices

- WASH
- Environmental safety/ITNs
- Neonatal & infant feeding and family care

Preventative Services

- Family planning
- Antenatal care
- Immunization

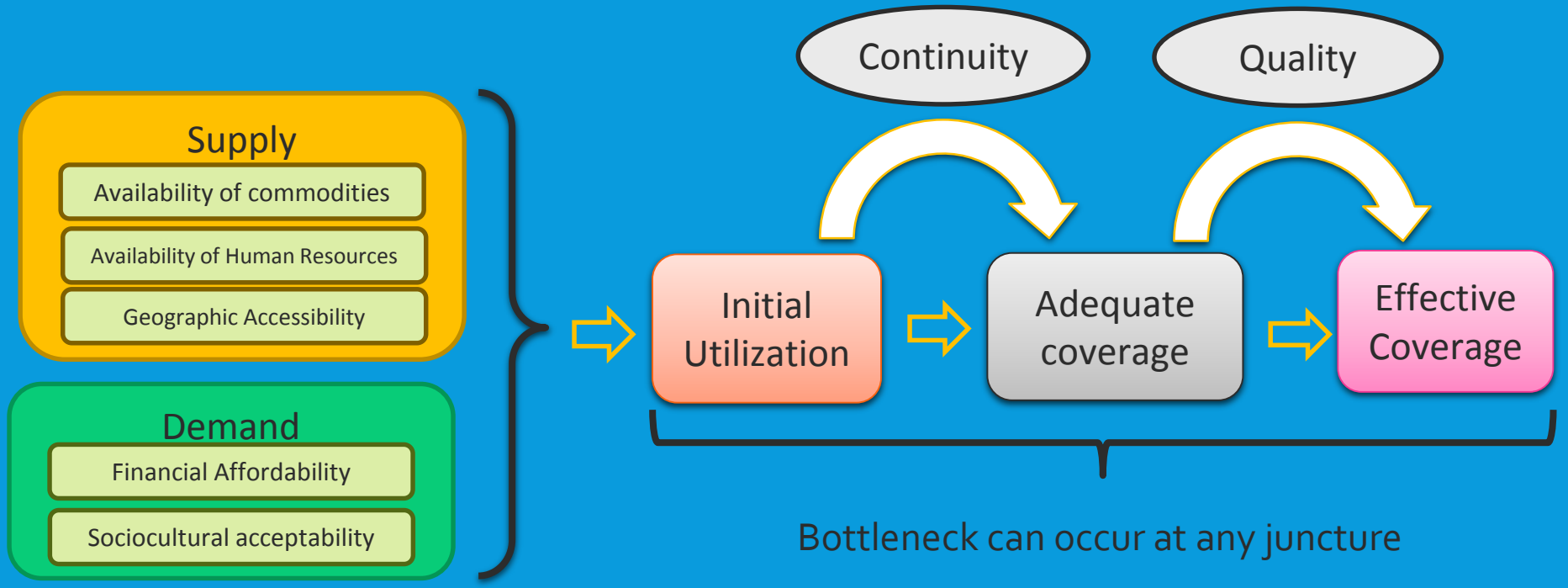
Clinical Care

- Curative services for children
- Skilled birth attendance
- Emergency Obstetric and neonatal Care

LINKING VERTICAL AND HORIZONTAL APPROACHES

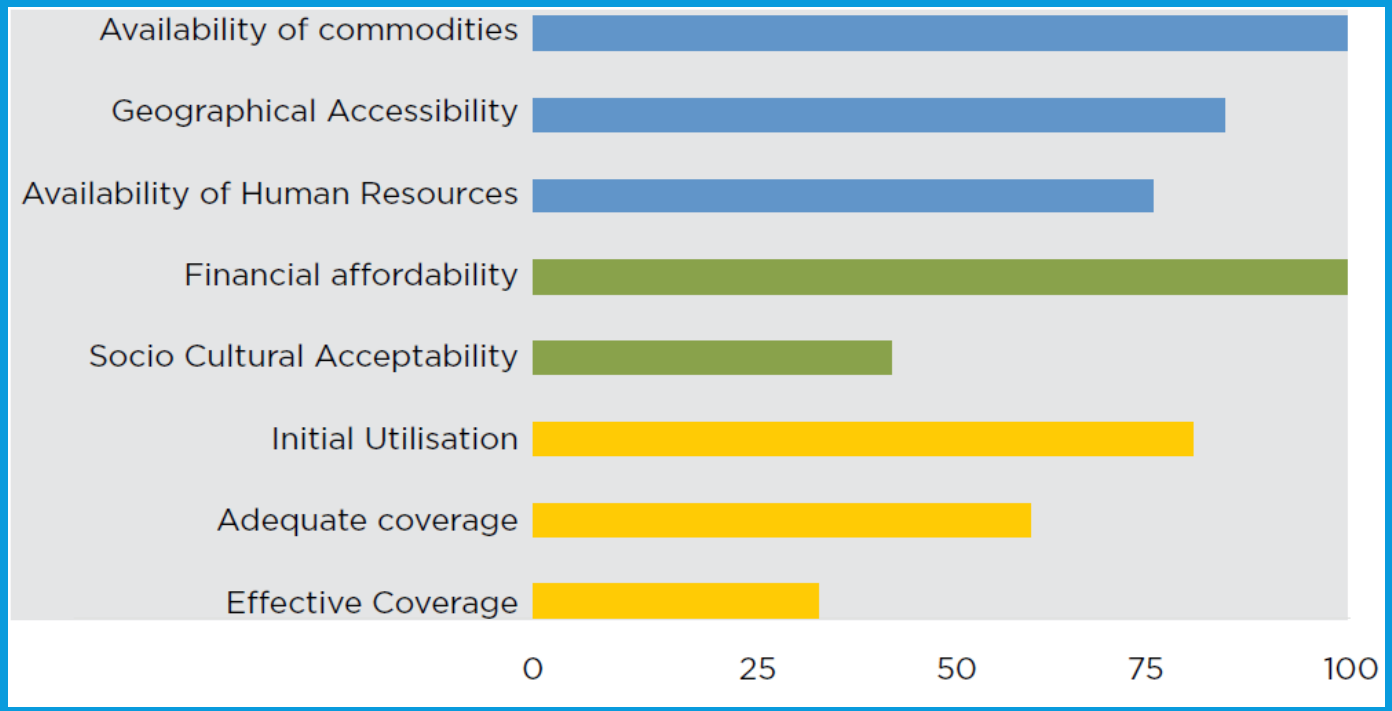
- Steps 1-3: Results-focused “Vertical” approaches (emphasis on specific diseases/programmes/ technologies)
- Once Priority interventions (technologies) → Group them by package/delivery platform, i.e., health Sub-system.
- Analyze Subsystem bottl4encks

STEP 4: IDENTIFY BOTTLENECKS THAT DISRUPT SERVICE DELIVERY



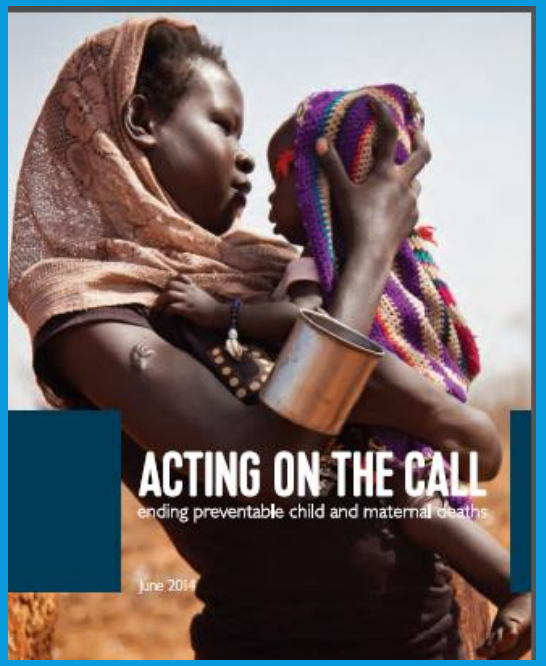
STEP 4: IDENTIFY BOTTLENECKS THAT DISRUPT SERVICE DELIVERY

- Use of quantitative proxy indicators to assess each of the bottlenecks



STEP 5: PINPOINT ROOT CAUSES OF BOTTLENECKS WITHIN A POPULATION

Bottleneck	Common Causes
Availability	Delayed or insufficient procurement Inadequate storage and distribution Capacity gaps for local supply management Inadequate equipment for local storage and distribution
Accessibility	Insufficient number of providers Inadequate numbers/distribution of access points/ facilities Inadequate deployment of providers to remote locations Contextual challenges (insecurity, informal settlements, difficult terrain, nomadism)
Affordability	Direct , OOP at point of service Indirect, transport, opportunity costs, etc.
Socio-Cultural Acceptability	Lack of awareness and misconceptions regarding interventions/practices Weak social support for desirable practices (traditional beliefs and social norms) Poor interpersonal communication skills among providers Discriminatory attitudes of providers towards target population
Continuity/Timeliness	Lack of awareness/ misconceptions about the importance of timely and continued care-seeking Weak social support for desirable practices (traditional beliefs and social norms) Inadequate management/ incentives for providers Unpredictable/ unreliable means of transportation
Quality	Providers lacking required skills Provider lacking required equipment or infrastructure Provider lacking motivation to ensure quality of care



STEP 6: EMPIRICALLY EVALUATE AND SELECT FROM A HOST OF EFFECTIVE STRATEGIES

- To mitigate the causes of key bottlenecks.
- A comprehensive review of the quantitative evidence of HSS strategies has recently been completed.

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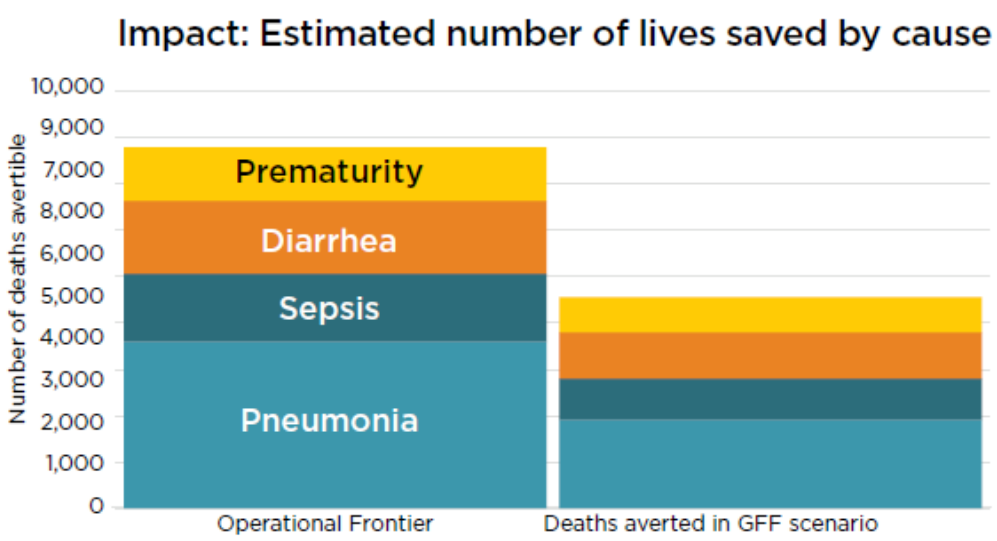
Conditional Cash Transfers

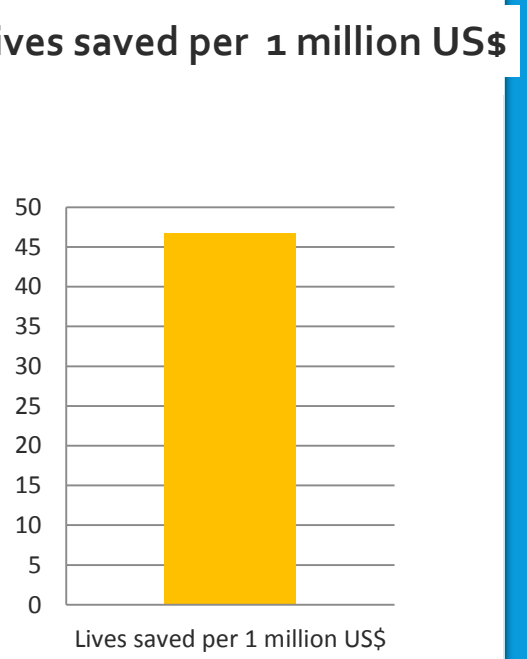
Expert Group Consensus Results

Sub-Strategy	Outcome	Proposed RR	Consensus RR (or *inconclusive*)	Level of confidence (*Low, Medium, High*)	Additional info / context (see Q6 next page)
Conditional Cash Transfers	Pregnant women completing >5 prenatal visits	1.49	1.49	M	Honduras only
	Attendance at 1 postnatal care visit	0.68	Inconclusive because there was no effect	NA	
	Coverage of pentavalent vaccine	1.10	**Replace with full age appropriate RR range below**	NA	
	Coverage of first dose DPT/pentavalent vaccine among children	1.07		NA	
	Coverage of tetanus toxoid for pregnant women	1.08	.083 to 1.33	M	Honduras only
	Coverage of measles vaccine	1.03	**Replace with full age appropriate RR range below**	NA	
	Percentage of children 12-23 months with current vaccinations	1.97		NA	
	Vitamin A supplementation	Mean diff: 0.05	-0.01 to 0.34	M	2 studies only
	% of people testing who picked up HIV test results	1.60	Rejected HIV testing as an outcome of interest for HSS		
	Added by ERG: Full age appropriate vaccination	Not proposed	-0.01 to 0.10	M	Immunization coverage was already high in Honduras (72%)

STEP 7: COMPARE THE IMPACT AND COST EFFECTIVENESS OF INTERVENTION SCENARIOS

Quantifying the number of lives saved and the associated cost, if these generated strategies are implemented.





Estimated through LiST applied on Cameroon MICS 2014

DEVELOPMENT

- EQUIST 1.0 Launched Jan 2016
- Review of Evidence base for HSS strategies
- Ongoing development of Version 2.0:
  - New thematic areas: Adolescent health, reproductive health, nutrition,
  - Inclusion of updated evidence base for HSS strategies
  - Stronger focus on district level analysis

PARTNERSHIPS

- BMGF, World Bank, WHO, USAID – Active engagement and support
- Other partnerships with academic institutions: U. Pelotas, IHME, University of Melbourne, New York University..

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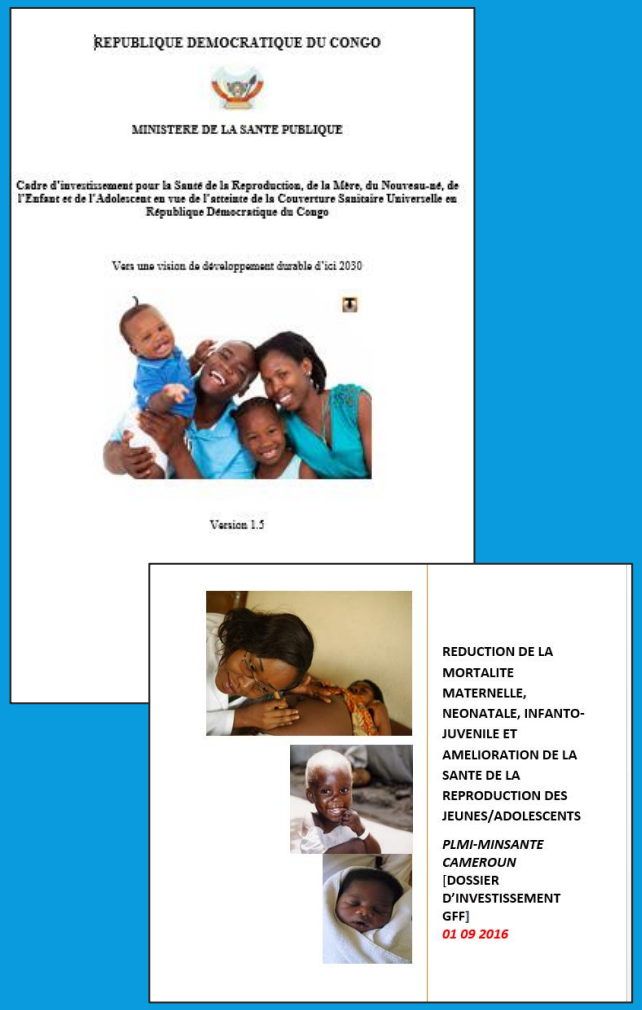
INITIAL ROLLOUT

- Orientation/training to government, H6 staff, partners.
- Support GFF investment case development (DRC, Cameroon, Mozambique,…)
- Support development of national health strategies, UNICEF country programme development (Bolivia, Haiti, Sudan, Guinea Bissau, Kenya, Ghana, Sierra Leone, Malawi, Senegal,…)



MEDIUM-TERM STRATEGIES FOR CAPACITY BUILDING & TECHNICAL SUPPORT →

- Agreements with academic institutions to provide support to countries.
- Training modules under development
- Partnership with WHO, WB, USAID, others to provide support/capacity building.

EQUIST: PUTTING DATA TO WORK FOR THE MOST DEPRIVED