

A Framework for Research 2014–2017

This document is based on inputs from the members of the UNICEF Interdivisional Task Force on Research, with the UNICEF Office of Research responsible for final editing. The document has been widely consulted across the organization and was finally reviewed and endorsed by the UNICEF Standing Committee on Data and Research.

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ART	antiretroviral therapy
BAT	Bottleneck Analysis Tool
CATS	Community Approaches to Total Sanitation
CHDs	Child Health Days
CHW	Community Health Worker
CM	child marriage
CO	Country Office (UNICEF)
DHS	Demographic and Health Survey
DfID	Department for International Development
DHSS	District Health Systems Strengthening
DRD	Deputy Regional Director (UNICEF)
ECD	Early Child Development
EMOPS	UNICEF Office of Emergency Programmes
FGM/C	female genital mutilation / cutting
GBV	gender based violence
HIV	Human Immunodeficiency Virus
HWWS	hand washing with soap
iCCM	integrated Community Case Management
ICTs	information and communication technologies
IMEP	Integrated Monitoring, Evaluation and Research Plan
IYCF	infant and young child feeding
JMP	Joint Monitoring Programme
LMICs	low- and middle-income countries
MHM	menstrual hygiene management
MICS	Multiple Indicator Cluster Surveys
MNCH	Maternal and Neonatal Child Health
MNPs	multiple micronutrient powders
MoRES	Monitoring Results for Equity System
MUAC	mid-upper arm circumference
NPRI	National Planning for Results Initiative
ODF	open defecation free
OoR	Office of Research
PLoS	Public Library of Science
PMF	public finance management
PMTCT	Prevention of Mother-to-Child Transmission (of HIV)
RO	Regional Office (UNICEF)
SAM	severe acute malnutrition
SRGBV	school-related gender-based violence
SRSG CAAC	Special Representative of the Secretary General – Children and Armed Conflict
STI	Sexually Transmitted Infection
SUN	scaling up nutrition
UNFPA	United Nations Population Fund
USI	universal salt iodization
VaC	violence against children
WASH	water, sanitation and hygiene
WFP	World Food Programme
WSP	Water Safety Plans
WSSP	Water Safety and Security Planning

Introduction

UNICEF has long been known for our focus on delivering health, education and protection programmes for disadvantaged children around the world. From our earliest days, however, UNICEF has also recognized the importance of generating and using evidence to guide policies and programmes for children.

This commitment to data, research and evaluation has grown over time, as both UNICEF and our partners seek the most effective ways to support children's rights. UNICEF's Strategic Plan 2014-2017 identified evidence generation as one of our key strategies, with the results often benefiting both specific country programmes and broader global efforts for children.

In order to support the achievement of the Strategic Plan's goals, UNICEF has for the first time conducted an organization-wide analysis to identify critical evidence gaps where UNICEF is well positioned to engage in research efforts together with our partners. That analysis led to this research framework, with its focus on the most disadvantaged children, programme effectiveness, cost effectiveness, and policy development. The framework is intended to make UNICEF's own research more coherent, strategic and relevant for children. It is also intended as an invitation to our partners to engage with UNICEF in areas where critical evidence gaps have been identified.

The framework was developed under the leadership of Christian Salazar (Deputy Director, Programme Division), Goran Holmqvist (Associate Director, Office of Research), and members of the UNICEF Interdivisional Task Force on Research. Staff across UNICEF contributed to the analysis and to the identification of priorities. UNICEF's Office of Research was responsible for coordinating inputs and final editing. The framework has been reviewed and endorsed by UNICEF's Standing Committee on Data and Research. Enquires related to the document may be directed to Christian Salazar or Goran Holmqvist.

Evidence generation needs and priorities will evolve over time as questions are answered and new challenges emerge. This framework invites UNICEF staff and UNICEF partners to approach such needs and priorities strategically, with a view to advancing rights for children as effectively and efficiently as possible.



Jeffrey O'Malley
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Executive Summary

This document summarizes a set of research questions that UNICEF should try to answer over the course of its current Strategic Plan (2014-17). The priority research questions have been identified by reviewing current efforts, consulting widely to identify gaps in evidence that UNICEF is well positioned to address, and considering proposed activities in light of the Strategic Plan.

Importantly, the Strategic Plan identifies “evidence generation” as one of its key “implementation strategies” for achieving its objectives. When available, evidence should be used to guide programme approaches and choices related to “supply” of relevant goods and services to children (and the strengthening of supply systems) and to “demand” for those goods and services (and related behaviours). Evidence also shapes and strengthens advocacy efforts intended to influence the enabling environment (policies, laws, budget allocations, political climate, and so on).

The research framework for the new Strategic Plan 2014-2017 is part of a larger organizational effort in evidence generation. The framework aims to orient the organization-wide efforts in research towards greater coherence and relevance for UNICEF’s key results for children. Consequently, the framework is structured according to the outcomes of the Strategic Plan and gravitates around research aims such as:

1. To identify the most vulnerable and hard to reach children for a programme or an intervention and to understand the drivers, barriers and bottlenecks of inequality and exclusion;
2. To establish the effectiveness of a programme or an intervention, i.e. what works and what doesn’t, particularly a) the drive towards scaling-up of interventions with an equity-focus, b) a better understanding of the demand for services and empowerment of communities, and c) innovations;
3. Cost effectiveness and investment cases is another theme. A few examples are research on impact and cost-effectiveness of social protection interventions; identification of most effective interventions to achieve learning outcomes; costs and consequences of violence against children.
4. Decision making in different government systems on policies and budget allocations as well as on the impact of policy and advocacy on social and institutional change.

Many common elements are also reflected across all or most of the outcome areas and merit to be pointed out, particularly as they provide opportunities for collaboration and synergies in UNICEF’s efforts to strengthen its evidence base.

One such common element is the focus on **equity**, which is reflected across all areas. This is, for instance, apparent in research geared at the profiling of vulnerable groups, in the emphasis of understanding drivers of inequity in access to services, on identification of intervention mechanisms to reach excluded groups and in research on community empowerment and other enabling environment factors that may be linked to inequity. This research agenda is hence clearly echoing the overall objective of the UNICEF Strategic Plan.

Inequity concerns related to **gender** are reflected, for instance in research related to girls’ education, child marriage and the gender socialization process among adolescents.

Research related to **humanitarian contexts** is found across outcome areas. This is, for instance, the case of health in emergencies, child protection in humanitarian settings and in the research that highlights different aspects of resilience. As there is a big evidence gap in this field, UNICEF actors and partners at all levels are encouraged to establish a separate and dedicated research focus on humanitarian action and peacebuilding. Some of the issues to look at are how humanitarian assistance can be provided in a more efficient way; what drives youth involvement in conflict, civil unrest and in peacebuilding? What key initial actions and investments are needed to ensure longer impact/resilience of the population in countries with chronic emergencies?

A **life-course** approach is reflected in the research oriented towards specific age groups and how factors at different stages of the life-course are related. Early childhood development and adolescent well-being are identified among the research themes that will be given special attention as cross-cutting, and also in relation to more specific issues under the various outcome areas (early childhood development and learning outcomes in education, adolescents affected by HIV/AIDS etc.).

UNICEF research is often **multidisciplinary** and uses a diverse set of methodologies, from purely qualitative to mixed methods and randomized controlled trials. When it comes to quantitative work the research often builds on data generated by the UNICEF coordinated MICS surveys (Multiple Indicator Cluster Surveys). Furthermore, some of the operational research on efficiency, effectiveness and impact of programme interventions overlaps with classical programme evaluations and UNICEF acknowledges that the distinction between both approaches to generate evidence is fluid. Within these themes, among others, there is a strong potential for synergies to be exploited across the organization, and for UNICEF to build mechanisms for sharing research results in a structured and systematic way across the entire organization, irrespective of the original geographical or organizational location.

In addition to moving forward specific research efforts in response to the questions outlined in this document, it is also important to build a deeper organizational culture within UNICEF of asking whether evidence supports programme choices, of generating evidence where it is missing, of recognizing the value of evidence generation with appropriate levels of financial support, and of sharing research methods, processes and findings across the organization and beyond.

The priority research questions identified in this document are at different stages of the research process and also differ in terms of available funding. As programmes are implemented and advocacy efforts move forward, sometimes new needs and opportunities emerge. As such, this document should not be read as a detailed plan ready for implementation – it is not meant to be prescriptive – but as an overview of desirable directions of UNICEF’s research investments over the coming years. Internally it represents an effort to clarify priorities and to identify overlaps and synergies. Externally it may be read as an open invitation to partners to engage with UNICEF in areas where critical evidence gaps have been identified.

1 Introduction

UNICEF is an organization with a universal mandate, representing the interest of children — over one third of the global population. UNICEF is officially represented by staff in more than 150 countries. As an organization it has to respond to a world that is changing at a faster rate than ever before, changes that represent threats as well as opportunities. In this context evidence becomes an increasingly important asset; evidence to guide interventions in favour of children in a diverse and changing landscape; evidence on if and how particular innovations and technological changes can work for children; evidence to underpin policy advocacy towards governments and other actors who set the policies that will make the most difference for children. Increasingly, evidence is one of the key “deliverables” that UNICEF is being asked to achieve as part of its country programmes. Much of this needed evidence is already available or is being generated by others and the challenge for UNICEF is to absorb it and to put it to use. In other cases, UNICEF needs to engage in generating new knowledge, often together with partners. Data collection, evaluation, and research represent the three pillars of UNICEF’s evidence generation efforts. This document presents key thematic priorities for UNICEF research 2014-17.

Research is one element of a larger organizational effort to strengthen the generation of evidence in support of UNICEF’s country programmes as well as for its role in advocacy and policy dialogues. This has been identified as a key strategy for achieving the objectives of the UNICEF Strategic Plan. Ultimately UNICEF research should contribute its overall objective of *realizing the rights for every child, especially the most disadvantaged*.¹

The Strategic Plan has constituted the organizing principles of this document, with the priorities grouped under each of its seven outcome areas: Health, HIV/AIDS, Nutrition, Water and Sanitation, Education, Child Protection and Social Inclusion, plus a section on research that cuts across outcome areas. Selected priorities respond to evidence gaps identified by research focal points for each outcome area. The selection process involved consultations with sector networks within the organization as well as interactions with external networks. UNICEF in its key sectors of work is a part of the global research community, which also includes academic partners and other United Nations agencies. Interaction with these communities has contributed to the identification of critical research needs. The emphasis has been on identifying just a few key priorities per outcome area. This document should therefore not be read as a comprehensive mapping of research projects.

This is the first time that UNICEF defines its research priorities at an organization-wide level. The process of identifying and documenting these priorities has been done with the following objectives in mind:

- As a process it should constitute an opportunity for all outcome areas to review their research priorities and to have them reflected in the work plan processes of relevant units.
- It should provide an overview that makes it possible to identify gaps, overlaps and opportunities for collaboration across the organization.

¹ UNICEF Strategic Plan 2014-17 available here: <http://www.unicef.org/strategicplan/>

- The identified priorities should also be used as a reference document when communicating with external partners (donors and academic community) who want to engage with and support UNICEF in areas where the organization has identified critical evidence gaps that can be addressed through our research efforts.

The priorities presented here are heterogeneous, which reflects the diverse roles research may play for the organization. Some of the research topics identified are very specific and related to precise operations or interventions, while others refer to gaps in our understanding of broader contextual factors. The priorities are at different stages in the research formulation process. They are in some cases backed by fully developed research proposals and in other cases, in the early stages of the research formulation process. They also differ in terms of available funding; some of the identified priorities are already moving forward with designated financial support, while UNICEF is actively fundraising to try to move forward others.

UNICEF's vast network of country offices and regional offices carries out more than three-quarters of UNICEF's research. UNICEF National Committees in developed countries also engage in research activities. Research done by UNICEF's field offices is tailored to country- or region-specific concerns that have shaped the local research agenda. In addition, some Regional Offices (ROs) are developing regional research strategies. This document aims to encourage local and regional research while at the same time providing UNICEF staff and partners with some sense of common ground in terms of which research questions and topics are seen as crucial for the achievement of the results in the Strategic Plan. It does not substitute country-based research nor regional research initiatives which are tailored to the specific needs and contexts on the ground. Regional Offices and Country Offices could also consider championing relevant aspects of the research framework.

UNICEF has established an ambitious and independent evaluation function and is also heavily engaged in global data collection and data analysis efforts, including through support to MICS (Multiple Indicator Cluster Surveys) around the world. Data collection and analysis and evaluation have strong linkages to research. The process of identifying these priorities has ensured that, through common workshops and feedback exercises, linkages are made to the parallel processes of prioritizing UNICEF's efforts in data and evaluation.²

The framework was shared with participants of the global research, monitoring and evaluations workshop in June 2014 as well as with the Deputy Regional Directors (DRDs). Subsequently, phone calls between the DRDs and the Deputy Directors of Programme Division and the Office of Research took place and in a number of cases written feedback from Regional Advisors and country offices was received and incorporated into this document.

² On UNICEF evaluations see <http://www.unicef.org/evaluation/> and for data and analytics see http://www.unicef.org/statistics/index_24287.html

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Research framework with priorities by outcome area

2.1 OUTCOME AREA 1 – HEALTH

UNICEF's Outcome Area 1, Health, sets out to achieve the following priorities as outlined in the Strategic Plan: Improved and equitable use of high-impact maternal, newborn and child health interventions from pregnancy to adolescence, and promotion of healthy behaviours. Working with the World Health Organization and others, UNICEF will support all countries to end preventable child deaths, with a view to reducing under-five mortality, to 20 per 1,000 live births or lower, in all countries by 2035. At the same time, participation in the Polio Eradication and Endgame Strategic Plan 2013-2018, will drive the eradication of all polio viruses, and support for introduction of the human papilloma virus vaccination for girls, will leverage the comparative advantage of UNICEF to contribute to adolescent health, complementing the efforts of UNFPA.

Key approaches will include providing equitable delivery of interventions; increasing access to life-saving and preventive interventions, including in humanitarian action; improving caregiver knowledge of high-impact interventions; strengthening health systems, including the contributing, as appropriate, to universal health coverage; improving the quality and use of data for making decisions; and ensuring better integration of health services with other services and interventions being provided to mothers, newborns and children.

The rationale for the selection of research activities and topics on health is grounded in UNICEF's equity focus, which takes the needs of the most deprived into account first. Research will also be formulated to support data generation and evidence with regard to "Impact, Outcome and Output" indicators as outlined in the Strategic Plan. These priority indicators are used to measure the success and progress of UNICEF and partner programmes, at country and regional levels.

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Immunization and Polio

- How do the profiles of high-risk communities influence vaccine uptake, and what are the best strategies to identify and vaccinate such groups as well as elevating and sustaining coverage?
- What are the bottlenecks to predictable and adequate flow of funds and other resources to ensure universal coverage of immunization services?

Antenatal, Perinatal and Neonatal Health

- What factors are associated with early uptake of Prevention of Mother-to-Child Transmission of HIV (PMTCT) services and retention in care?
- To what extent are skilled attendance rates, quality of care and client satisfaction impacted by the Mother-Baby Friendly initiative?
- Which are the critical factors associated with improvements in newborn delivery and care, leading to a reduction in complications and mortality?

Postnatal and Child Health

- What are the barriers to care-seeking for integrated Community Case Management (iCCM) and strategies to increase uptake of Community Health Worker (CHW) services?
- What new innovations (including mobile technologies) improve iCCM/CHW services?

Health Systems Strengthening

- Does the District Health Systems Strengthening (DHSS) approach improve district management and decision-making to address health systems bottlenecks?
- Does the DHSS approach reduce Maternal and Neonatal Child Health (MNCH) access disparities?

Knowledge Management

- What are the innovations to increase availability, quality, timeliness, and use of community-based MNCH and birth registration data?

Interventions, programmes and policies beyond the health sector to improve child survival and development

- What is the evidence, regarding the impact on child survival, of key interventions, programmes and policies beyond the health sector (e.g. cash transfers, maternal education, agriculture)?

Health in Emergencies

While Health in Emergencies and humanitarian settings cross all the above areas, there are also two specific priorities within this topic area:

- What is the evidence on the effectiveness of community case management in emergencies?
- What is the effectiveness of the use of oral cholera vaccines in outbreaks and in humanitarian settings?
- What is the evidence on the effectiveness of community case management in emergencies?
- What is the effectiveness of the use of oral cholera vaccines in outbreaks and in humanitarian settings?

Although not prominent in the Strategic Plan, several Regional Offices have also flagged the need for more research on non-communicable diseases, their impact on children and the effectiveness of related programme interventions.

UNICEF, as a UNAIDS co-sponsor will support countries to reach the 90-90-90 targets by 2020: 90% of all people living with HIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART); 90% of all people receiving antiretroviral therapy will have viral suppression. UNICEF will make specific contributions relevant to the first two decades of life. This includes two major interventions in the first decade of childhood: elimination of new HIV infections in children and keeping their mothers alive, and paediatric treatment, care and support. In the second decade of life, UNICEF will focus on adolescent treatment, prevention, care and promoting enabling environments. UNICEF will also promote HIV sensitive social protection, gender equality and child rights which impact upon HIV risk, HIV transmission and HIV-related morbidity and mortality across both decades of life.

The rationale for the selection of priority topics is based on collaborative work and agenda-setting with the UNAIDS Secretariat, the UNAIDS Co-sponsors and others, where key evidence gaps have been identified.³ UNICEF's lead in research activities focuses on the following priority as outlined in the Strategic Plan: *Improved and equitable use of proven HIV prevention and treatment interventions by children, pregnant women and adolescents.*

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Improving HIV-related services for mothers and infants

Inequities in access to HIV services for pregnant women living with HIV and their infants is a barrier to achieving the *Global Plan for the Elimination of New HIV Infections in Children by 2015 and Keeping Their Mothers Alive*. There is also a need for evidence on 'how to integrate' HIV and maternal, neonatal and child health (MNCH) services at decentralized and provincial levels to improve access to HIV testing and follow-up ART services for pregnant women, mothers and their infants.

- What interventions/management practices increase demand and improve access to HIV tests and follow-up ART; promote retention of pregnant women, mothers and their infants in HIV prevention and treatment services? Among marginalized populations of women and girls, i.e. injection drug users, migrants?
- What are the best mechanisms for integration of HIV and MNCH services (including sexually transmitted infection, STI, and nutrition) at various levels in the health systems? Which investments result in the most impact across both, HIV and MNCH outcomes?
- What are the best interventions to support implementation of the new WHO infant feeding recommendations? (In the context of lifelong ART for all pregnant and breastfeeding women living with HIV, for HIV-exposed infants, and to absorb system shocks?)

HIV and adolescents

Adolescents aged 10-19 are the only age group that has seen increasing death rates due to AIDS. UNICEF and UNAIDS are driving a partnership, *All In – To End Adolescent AIDS*, to address this underserved population. Most at-risk adolescents have the highest rates of HIV, but often face stigma and discrimination in accessing services (adolescent males who have sex with other males; adolescents who inject drugs and adolescents who are exploited by the sex industry; girls in many contexts).

³ *Journal of AIDS*, July 1, 2014 - Volume 66 - Supplement 2, Ending HIV in Adolescents: Programmatic and Implementation Science Priorities. <http://journals.lww.com/jaids/toc/2014/07011>

- How can we increase access to HIV testing for adolescents, and follow-up HIV prevention and treatment services?
- What are the best interventions for retaining adolescents living with HIV, in treatment services?
- What are the best interventions to reach most at-risk adolescents with the most effective HIV prevention treatments?
- How can technology, including crowd sourcing and social media, be used to harness adolescents' and users' participation in HIV prevention, in peer support for behavioural change and early and life-long treatment?
- How can we use big data to shed light on behavioural risks, attitudes, trends and patterns among adolescents given increased pervasiveness of social media? If so, how to use big data to improve programme interventions?

Social protection, care and cross-cutting interventions

Social protection, care and support interventions provide the enabling environment to deliver effective and efficient HIV services, but mechanisms for delivering these services to the most vulnerable women and children affected by HIV are not brought to scale.

- How are protection, care and support interventions, which contribute to HIV prevention, treatment and care outcomes in both decades, including systems, sectors and structures at the community level, brought to scale?
- How do national legal frameworks (and changes to those frameworks) impact access to HIV testing, MNCH services and follow-up services for women, children and adolescents?
- Which evidence-informed gender based violence (GBV) interventions have the most impact on HIV/MNCH-related outcomes while promoting human rights of all women and girls?
- What is the evidence on the effectiveness of community-based efforts to retain pregnant women, infants and adolescents in treatment in emergency settings? Resilience structures/programmes in place?

Procurement and supply chain operationalization

- How can we best optimize point-of-care technologies, i.e. HIV testing and viral load, in different epidemiological settings and in weak or strong health systems?
- What are the best tools and mechanisms to forecast commodity/diagnostic and equipment needs and monitor their use through the supply chain? Predict stock-outs? And other barriers to efficient supply chains?

Knowledge management and strategic information

- How to improve routine data collection, reporting and feedback for better analysis of prevention of mother to child transmission (PMTCT), treatment and prevention data and ultimately improve programmes for pregnant women, infants, children and adolescents.

2.3 OUTCOME AREA 3 – WASH

The overall vision of UNICEF's WASH programme is to achieve universal access to safe drinking water, sanitation and hygiene. The WASH Strategic Plan outcome has been designed to achieve progress towards the targets that are likely to be included in the Sustainable Development Goals, developed through an extensive sector consultation facilitated by the Joint Monitoring Programme (JMP) for Water Supply and Sanitation. The four proposed target areas are: no one practices open defecation; everyone has safe water, sanitation and hygiene at home; all schools and health centres have water, sanitation and hygiene, and all these are sustainable; all inequalities to access are progressively eliminated.

An integral component of the WASH Outcome Area will be to address long-standing challenges and bottlenecks faced by the sector, through research. The rationale for the selection of priority research themes is based on a combination of sector analyses and trends, emerging thinking on programming approaches, and new or increased evidence that supports strategic shifts. Evidence shows poor functionality of water supply systems, especially point sources; an increased and growing number of data sets enable equity analysis revealing disparities in access by place of residence, wealth quintiles, ethnicity and religion; and there is recent evidence on causal links between access to WASH and stunting. There are also evidence gaps surrounding the impact and sustainability of newer approaches designed to facilitate access, quality of services, behaviour change, and the effective use of resources to achieve more equitable results.

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Social norms and behaviour change

To date the main emphasis of our interventions has been on individual and social change but not working within the context of changing social norms. Exploration of all the major components around conditional preferences, social networking, social conventions, trust and commitment, coordinated expectations, cognitive dissonance and incentives, would greatly help strengthen and sustain sanitation interventions and ensure that social norms around sanitation are indeed changed. Also, further research is needed to better understand the triggers and motivators that result in the habitual practice of hand washing with soap (HWWS) before eating and preparing food. Specific, priority research questions include:

- How does a focus on social norms influence programme outcomes?
- How can we encourage the practice of HWWS before eating and preparing food?
- Why do young adolescent school girls (e.g. 10-12 years old) not use toilets, which has negative impacts for their health and school performance? What can be done to promote use of toilets?
- Why do people continue to waste freshwater and energy when we know that freshwater is depleting and energy has a carbon print, which highly and irreversibly contributes to climate crisis?

Sustainability

For the last 20 years, the WASH sector has relied upon the 'community-based management model' to ensure sustainability of drinking-water supplies. Research is required to investigate the cost-effectiveness of alternative management models, including greater involvement of local government, the private sector and public-private partnerships. Specific, priority research questions include:

- What are the effects of different rural water service delivery models on sustainability, functionality, community health and well-being?

- To what extent do WASH programmes address/integrate growing water insecurity of the most vulnerable people?

In 2013, eight WASH programmes in the West and Central Africa region developed sustainability compacts in which roles and responsibilities were defined. The compact was signed by the relevant ministries and UNICEF offices. Research is needed to assess the contribution, if any, to strengthening accountability for service delivery, including:

- Has sustainability of water services improved as a result of the implementation of the 'Sustainability Compacts' and related 'Sustainability Checks'?
- What have been the key drivers behind success or failure?

At the 2014 meeting of the Handwashing Behaviour Change Think Tank (an initiative of the Global Public-Private Partnership for Handwashing), a stocktake of best practice and research gaps was undertaken. While motivators of hand washing are better understood, and integrating handwashing into total sanitation programming approaches is showing signs of success, there is a lack of evidence of sustainable handwashing behaviour change at scale:

- How can handwashing with soap (or ash) be sustained over time?
- What type and level of follow-up is required after the initial intervention to trigger handwashing?
- What affordable handwashing devices and products are available that can contribute to sustaining handwashing practice?

Similar questions can also be asked concerning how to sustain behaviour change with regard to sanitation, specifically abandoning the practice of open defecation.

Safety of drinking water

The UNICEF Strategic Plan features the implementation of Water Safety Plans (WSP) at community level as an output indicator. This approach is relatively new to the UNICEF WASH programme and has significant potential to improve the safety of drinking water and also strengthen sustainability. Further research is needed to understand:

- What evidence exists to demonstrate improved protection of public health from the implementation of WSPs?
- How can WSPs be verified in resource-poor settings?
- To what extent does the introduction of a WSP lead to improved management capacity and practices?
- What can be learned from the experience to date of implementing WSPs in developing countries that can be incorporated into a UNICEF WSP strategy?
- What are the key steps needed to shift from Water Safety Planning (WSP) to Water Safety and Security Planning (WSSP), and what should be the content of a WSSP guidance manual (it should cover both rural and urbanized settlements)?

Equity

The UN Declaration of the Human Right to Safe Drinking Water and Sanitation in 2010, the visibility of the work of the Special Rapporteur, and the incorporation of the underlying principles of this human right in the targets proposed by the Joint Monitoring Programme (JMP)-facilitated post-2015 consultation, have resulted in many questions requiring further research concerning which population groups have been overlooked as regards having access to drinking water and sanitation. Specific, priority research questions include:

- How can the elimination of inequalities to access in drinking water and sanitation be monitored in the post-2015 framework?

- What approaches can be taken to operationalize the human right to safe drinking water and sanitation?

Service delivery

The evaluation report “Community Approaches to Total Sanitation” (CATS)⁴ concluded that the supply side of the approach needs further development, including sanitation marketing and post-ODF (open-defecation free) services (see ‘Sustainability’, p. 60). In regard to the lack of technical guidance on sanitation marketing, UNICEF developed a learning series in 2013, but further research is needed for this new component of sanitation work. Specific, priority research questions include:

- What are viable business models for sanitation marketing?
- How can private sector supply of technical guidance and supply of essential materials and product services be developed to serve post-Open Defecation Free (ODF) communities?

The UNICEF-developed WASH Bottleneck Analysis Tool (BAT) has been used to support the National Planning for Results Initiative (NPRI), and further research should focus on identifying impacts on accelerating coverage as a result of interventions directed at strengthening the enabling environment. Research is also needed to develop an approach that leads to national ownership and use of the WASH BAT and to incorporate its use in national sector review and planning processes and to support the NPRI. Specific, priority research questions include:

- How can bottleneck analysis be incorporated into sector planning?
- How can the impact of intervention in the enabling environment be measured?

Cross-cutting interventions

As well as being an outcome in its own right WASH contributes to several other outcomes, most notably, health, education and nutrition. Providing safe drinking water and sanitation close to home makes an important contribution to child protection and gender equality. Research questions include:

- How can we embed sanitation into social safety-net programmes?
- What research methods can be used to better understand menstrual hygiene management (MHM) needs among schoolgirls?
- What MHM interventions can be successfully and sustainably introduced through the WASH in Schools programme?
- What models of integrated WASH and nutrition programming can deliver greater results?
- What is the socio-economic impact as a result of time-saving from providing on-plot water supplies?
- What method can be used to quantify indirect beneficiaries?

Finally, humanitarian partners have considerable expectations from UNICEF in terms of provision of water / water system repairs / water resilience / water insecurity, and it would be important to invest strategically in research in these fields.

⁴ http://origin-www.unicef.org/evaldatabase/files/Final_Evaluation_Report_CATS.pdf

2.4 OUTCOME AREA 4 – NUTRITION

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Outcome Area 4 of the Strategic Plan, Nutrition, sets out to achieve improved and equitable use of nutritional support and improved nutrition and care practices. Sharing and generating scientific evidence of the efficacy and effectiveness of key nutrition interventions to support policy and programme implementation is fundamental to UNICEF's work in nutrition. The selection of priority topics is aligned with the global nutrition agenda and research gaps identified in the 2013 Lancet Series on maternal and child nutrition and in its 2013 Maternal and Child Nutrition Special Issue: *Promoting Healthy Growth and Preventing Childhood Stunting*. In this context, research will address both cross-cutting issues in nutrition and those relating to specific programme areas (Infant and Young Child Feeding; Micronutrients; Community Management of Acute Malnutrition and Nutrition in Emergencies; Nutrition and HIV).

Furthermore, research on UNICEF's new global approach to nutrition programming as well as specific programme areas such as adolescent nutrition, maternal nutrition, overweight and obesity will be encouraged. These are areas which generally have much more limited evidence for effective interventions, and it would be important to undertake specific operational research related to intervention models that UNICEF could support or promote.

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Stunting reduction

In terms of key knowledge gaps relevant to the nutrition outcome area, many relate to the broader and more fundamental question of what works to reduce stunting on scale. This requires research to address questions relating to the deliverability, access (including affordability), and demand for existing interventions, and evaluation of the appropriate mix and/or convergence of nutrition-specific and nutrition-sensitive interventions; and policy/systems research to address questions relating to the enabling environment for nutrition and appropriate mechanisms to promote multi-sectoral coordination. Specific questions include:

- How do we best combine different nutrition-specific and nutrition-sensitive programmes to equitably achieve stunting reduction?
 - What is the added value (in terms of effectiveness and cost-effectiveness) of different interventions?
 - What is the appropriate mix of interventions?
- Does geographical convergence of multi-sectoral interventions in targeted areas better address the needs of the most vulnerable?
- How can the rapid decreases in stunting noted in selected countries be explained by changes in intervention coverage and in distal determinants?
- How can we generate political commitment for nutrition and advance opportunities for policy reform?
- Did UNICEF's support for upstream policy processes (including but not limited to scaling up nutrition (SUN)) result in positive changes both in terms of nutrition impact and the effective functioning of systems and governance for nutrition, including investment in nutrition?

Infant and young child feeding

Optimal infant and young child feeding (IYCF) practices, including early breastfeeding initiation within the first hour of life, exclusive breastfeeding for the first six months, and adequate complementary feeding along with continued breastfeeding, are one of the most cost-effective interventions to prevent and reduce child stunting and other forms of undernutrition. However, cultural barriers and social norms, low capacity of community

health workers to provide practical advice and counselling related to breastfeeding and complementary feeding, infrequent contacts between the caregivers and health workers, and inadequate community and family support for caregivers are barriers to the adoption of optimal IYCF practices. In addition, mothers' return to work and uncontrolled marketing of breast milk substitutes contribute to non-exclusive or early cessation of breastfeeding. Specific, priority research questions include:

- Which are the barriers to participation, adoption and use of programme inputs and services, e.g., recommended feeding or caregiving practices (to be explored through qualitative research).
- How baby-friendly workplace policies can contribute to support mothers to continue breastfeeding?
- Can the use of mobile technology help health care workers provide appropriate and timely counselling to lactating mothers on infant and young child feeding?
- Does the inclusion of multiple micronutrient powders (MNPs) in IYCF programmes lead to additional improvements in complementary feeding?
- Did efforts to better institutionalize IYCF services in health systems result in improved quality and performance of the services and improved IYCF?
- Which approaches of communication for development work best in different contexts to bring about shifts in social norms as well as behaviours?

Micronutrients

Micronutrient interventions such as food fortification and supplementation are one of many evidence-based approaches to address micronutrient deficits that the local diet cannot meet. Interventions to address micronutrient deficiencies include: supplementation, e.g. vitamin A supplementation of young children and multi-micronutrient supplementation for pregnant women; food fortification, e.g. iodization of salt, fortification of flour, oil and rice; point-of-use fortification, e.g. micronutrient powders to improve the quality of complementary foods for children aged 6-23 or 59 months; and activities to improve the quality of the diet, together with prevention and treatment of infectious diseases to minimize depletion of key micronutrients. Specific, priority research questions include:

- How effective are market-based approaches for improving availability and uptake of MNPs?
- Does a well-functioning universal salt iodization (USI) programme meet optimal iodine nutrition for all vulnerable groups?
- What are the best channels to deliver iron/folic acid to adolescent girls?
- How can we improve equitable and timely delivery of vitamin A to young children?
- What is the optimal mix of micronutrient (e.g. vitamin A supplementation) interventions?

Child Health Days (CHDs)

Child Health Days represent an important delivery platform for bi-annual delivery of vitamin A supplementation, deworming and childhood immunization especially in settings where routine health service delivery is weak. Given the relatively important role that CHDs play in certain settings, countries have experimented with finding the optimal package of interventions. In other settings, there has been concern about the campaign 'nature' of this delivery platform and that it may weaken routine health services. The questions prioritized below therefore respond to the issues identified in the literature and frequently raised by countries, and which were discussed with key countries and regional offices of sub-Saharan Africa. Specific, priority research questions include:

- What is the optimal mix of interventions as part of CHDs (e.g. micronutrient powder, iron folic acid, mid-upper arm circumference (MUAC) screening)?

- How can we strengthen the link between routine health care delivery and outreach services such as Child Health Days?
- What are the best ways to build on and strengthen existing monitoring systems to determine if the underserved are being reached through CHDs?

Managing severe acute malnutrition (SAM)

Wasting (linked with recurrent episodes of infectious diseases) increases the risk of stunting and severe acute malnutrition remains a major cause of mortality among children under five years of age. Prevention and management of acute malnutrition is therefore critical. Community-based management of acute malnutrition has allowed for the rapid scale-up of SAM treatment, but more needs to be done to prevent moderate and severe acute malnutrition and reduce the burden of acute malnutrition. In addition to the research questions laid out in section 2.4 in relation to WASH and Nutrition, additional research questions include:

- What alternative formulations of ready-to-use therapeutic foods and treatment protocols can achieve the adequate clinical outcomes depending on contexts i.e. acute emergencies; development setting?
- What is the cost effectiveness of integrated WASH and nutrition programming to prevent acute malnutrition?
- What is the optimal range of interventions to prevent and treat acute malnutrition in different country contexts: middle income, emergency, fragile, development?
- What modifications may be needed in specifications on content and food safety for nutrition products related to treatment of severe acute malnutrition to ensure delivery of adequate and effective nutritional support?
- Which are effective models for integration of SAM treatment into health systems?

Nutrition in emergencies

The concept of 'resilience' and its practical application in nutrition, both in policy formulation and implementation, is a critical issue among the humanitarian and development communities. This issue has taken on importance as nutrition has received greater attention as illustrated by the growing number of countries and partners that are responding to the UN Secretary General's Zero Hunger Challenge and joining the Scaling up Nutrition (SUN) movement. UNICEF is currently developing guidance for risk-informed programming, to help country offices identify and analyse risks, identify programme strategies to mitigate and adapt to risks, and promote effective monitoring and evaluation including collection of good practices for Health, Nutrition and HIV. A critical component is investing in emergency preparedness and capacity for nutrition emergencies. Specific, priority research questions include:

- What have been effective programme strategies to strengthen nutrition coordination and nutrition in emergencies capacity through preparedness activities at country level within government, partners, and systems?
- What are optimal approaches to strengthening national coordination structures and capacity for nutrition as emergencies transition from the critical phase, in particular from Level 3 emergencies?
- What are alternatives to signalling deterioration of nutrition situations prior to the critical emergency phase to enable scaling up of prevention programming?
- Systematic assessment of the impact of emergencies on IYCF practices and how strengthened preparedness and response measures can be applied.

Outcome Area 5 of the Strategic Plan, Education, aims to deliver improved and equitable access to and completion of quality, inclusive education with a focus on improving learning outcomes and particularly among the most marginalized. Education research and evidence building in the context of developing countries has been and continues to be an area of underinvestment. In particular, the available research is largely focused on analysis of issues, particularly around increasing participation in education rather than identifying solutions to *achieving* learning outcomes. Relevant and essential data, especially on learning, is scarce and limits the capacity of the sector to undertake quality research. Furthermore, drawing firm conclusions applicable across many countries is not feasible, since the literature shows how much education policy and interventions depend upon context and history.

In this context, UNICEF's overall research efforts will address evidence gaps around the issue of equity in, and quality of education and learning – especially how to address, measure and track these issues in specific contexts. UNICEF will promote enhanced focus on quantitative and rigorous research methodologies; improved data and data tools; strengthen understanding of the existing gaps in education research; and improvement of our internal capacity to critically assess quality of evidence towards programming applications. This will be done in partnerships with development partners, academic institutions and governments alike, particularly through engagement with the *Building Evidence in Education* (BE2) forum which seeks to increase the production and use of rigorous evidence in education policy and implementation.

Given the significance of local contexts, it is anticipated that the specific research questions will be articulated at the country/multi-country level and reflect the identified thematic areas; they will focus on answering and supporting critical programmatic needs. The MoRES (Monitoring Results for Equity System) approach for good programming currently being mainstreamed across the organization provides a strategic entry-point as well as a tool to articulate the critical operational research questions.

KEY PRIORITIES AND ACCOMPANYING RESEARCH QUESTIONS

Equity in education

There is substantial evidence on approaches that seem to work for the majority of learners, but big gaps exist on what works for marginalized children, especially in early childhood and early learning, and girls' and children with disability. Improvement of data and data tools will be supported as contributions to promoting the quality of research and evidence generation on what works. This includes, but is not limited to close collaboration with the Office of Research through contributions to the Young Lives Study, as well as through working with other partners. Specific, priority research questions include:

- Who are the remaining out of school children? Who is at risk of dropping out? What are the barriers they face, and what policy interventions are needed in different contexts to improve their access and learning outcomes?
- How can monitoring tools and systems such as district and school level profiles be used to improve system performance and learning outcomes, including early learning?
- How can we mainstream data collection on identification and participation of children with disabilities in education, and better support countries in delivering inclusive education? What are the existing good practices that promote inclusive education?
- How do information and communication technologies play a role in promoting equity in access and learning?

- How can we increase access to quality early childhood education for children in the poorest quintile, who currently have the lowest access?

Quality of education

- What is the impact of quality interventions and their effects on learning; what constitutes effective learning; what are effective methods to measure learning outcomes?

Girls' education and gender equality

We will also work on developing and promoting a common and systematic approach to identification, design, and monitoring of interventions to accelerate girls' education and gender equality. Specific, priority research questions include:

- How do social norms and institutional barriers inhibit girls' education? What does evidence tell us about school-related gender-based violence (SRGBV), its nature and scope as well as identification of good practices to help develop a common approach to address it?
- How do we promote girls' education at the secondary education level? What are the effects of incentives, financial as well as others, on girls learning and performance? How do we measure and understand gender equality and empowerment in relation to education?

Innovation

An important thematic area for evidence building is identification and application of innovation to improve and accelerate more equitable access and learning outcomes in different contexts. Innovation in education is defined as a programme, product, service, process or partnership that are effective in improving performance in equity, access and learning outcomes; is rapidly adopted by users as it solves a real need in a simple way; and has the potential to match the scale of the problem at local, national and global levels. In particular, we are assessing solutions that can innovatively contribute to the following:

- Speed up the identification and sharing of successful pedagogical practices and tools that improve learning outcomes;
- Improve equity by lowering access barriers, either by decreasing costs or by expanding the reach of education systems;
- Improve the reporting of school attendance, performance, learning outcomes and community participation;
- Enable the participation of communities, families, teachers and children in education decision-making processes;
- Enable the provision of education services in crisis and post-crisis contexts;
- Enable better management practices.

Education in peacebuilding

Progress made in the education sector can easily be eroded by emerging challenges related to conflict and insecurity and, at the same time, the education sector is key to building capacities to prevent, reduce and cope with conflict and to promote peace.

Specific, priority research questions include:

- How can education, as part of social service provision, be integrated into broader peacebuilding policies and practices at the global and country levels?
- To what extent do education and peacebuilding interventions promote agency and capacity of teachers to build peace and reduce inequalities?
- To what extent do formal and non-formal peacebuilding education programmes promote youth agency for social transformation and peace?

2.6 OUTCOME AREA 6 – CHILD PROTECTION

Outcome Area 6, Child Protection, of the Strategic Plan addresses prevention of and response to violence, abuse, exploitation and neglect of children. The key pillars of child protection work are a twin focus on systems-strengthening and social change across all contexts. The systems-strengthening approach has moved child protection away from project-based interventions (mainly aimed at responding to violence, abuse and exploitation) towards a more holistic orientation including national and subnational capacity building for prevention as well as for response.

The proposed research priorities will be used as entry points for wider systems-strengthening and social change. A broad framework identifies main knowledge bases and questions that have to be addressed to make up a comprehensive, synergistic evidence package.

These bases complement each other and are integral to operational progress and, in the end, programme guidance. Specific, priority research questions include:

- What is the prevalence of the issue of focus?
- What are the social and structural drivers?
- What are the costs and consequences of the issue to the individual and society?
- What works, why and under what conditions (for prevention and response)?
- How well is the system performing (results, intended and unintended consequences of systems performance)?
- What is the cost of intervention (budgeting), including at scale?

The relative priority of each of these areas depends on context and being clear for what purpose the knowledge is needed. From a global research perspective, the principle is to concentrate on those knowledge areas which, when combined, enable the articulation of clearer theories of change – and to prioritize initiatives that help us test the theories to inform strengthened programming and policy work for results in Outcome Area 6. The knowledge areas prevalence, drivers, what works and ‘costs’ are the most pressing priorities.

Globally, Child Protection has identified four priority substance themes for the 2014-2015 biennium around which it intends to deliver a combined programme of evidence and interventions in policy and practice:

- Interpersonal violence affecting children across contexts
- Child marriage and FGM/C
- Birth registration, and
- Ending recruitment of children by government forces by 2016 (the joint ‘#Children not Soldiers’ campaign Special Representative of the Secretary General – Children and Armed Conflict UNICEF).

A number of these areas (notably programming and policy work related to child protection in emergencies, FGM/C and violence affecting children) have been or are currently the subject of an independent global evaluation, illustrating the importance UNICEF is placing on generating a robust evidence base to strengthen results for children.

Though they are global programme priorities, birth registration and FGM/C are not currently identified as major priorities for research, but the others, led by interpersonal

violence affecting children, need research support. Systems strengthening and a social norms perspective are important for each priority area.⁵

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Inter-personal violence affecting children (VaC)

Violence affecting children is a global issue and is politically significant for UNICEF (i.e., #ENDViolence against Children). As country income levels improve, violence affecting children (VaC) continues to present a major challenge and development barrier, and there is strong interest in ensuring that VaC is included within the post-2015 agenda. The complex relationship between poverty and inter-personal violence, and inequalities and violence remain poorly researched, especially in low- and middle-income countries (LMICs).

The issue of “what can be done” to prevent and respond to violence is the first question of most policymakers confronted with compelling prevalence data. There are significant lessons to be learned from research on violence against women, but there are also limitations – the issue of the different ages of children adds a generation dimension to that of gender. There is also a need to cost evidence-based interventions. Finally, systems governance remains a challenge, especially in contexts of limited national capacity. Most research on systems governance derives from the ‘rich’ world, the contextually specific interplay of statutory and non-formal system components and how to make this most effective remains poorly understood in most LMICs. Specific, priority research questions include:

- What is the prevalence of different forms of violence, and what are the costs and consequences for both the individual and society?
- What are the most effective methods and tools to determine the prevalence/magnitude of violence in a given geographic area?
- What are the key drivers of interpersonal violence affecting children, and what is the consequence of the interaction of these drivers?
- What works to prevent violence, why and under what conditions?
- What is the cost of intervention (budgeting), including at scale?
- How well is the system performing (results, intended and unintended consequences of systems performance) vis-à-vis the prevention and response to violence affecting children?
- What is the impact of civic and democratic engagement/skills development/adolescent participation on children/adolescents’ involvement in armed violence (engagement with radical and extremist groups both in the context of civil strife and armed conflict) – looking at key drivers, the profile of these young people etc.

Child marriage (CM)

Child marriage is an international theme of joint interest to both gender and child rights advocates. While CM does not have the same global prevalence as VaC, it is a significant child protection issue in parts of Africa, Asia and the Middle East. The evidence base on prevalence has improved over the past few years, in part due to MICS and demographic and health survey (DHS) data, and knowledge of effective prevention strategies has also grown. However, more research is needed on social expectations/drivers and what works and to improve clarity on the appropriate mix of strategies for different socio-economic contexts. Specific, priority research questions include:

⁵ Some regional offices also flagged research gaps in the area of justice for children. Issues that need further research include effectiveness of laws and regulations, children’s equitable access to justice and legal recourse amongst others. Research questions will have to be developed in each region and country, depending on national justice systems and local contexts.

- What are the key drivers of child marriage, and what is the consequence of the interaction of these drivers?
- What are the key social expectations/drivers of child marriage and its relational dimensions (e.g. girls, future grooms, parents of girls, parents of grooms, the wider community, religious leaders and key influencers), and what is the consequence of the interaction of these drivers?
- What works to prevent child marriage, why and under what conditions? How can social norms surrounding child marriage be addressed?
- What are the practical governance characteristics of a child protection system able to effectively address child marriage?
- What are the key governance measures required to strengthen systems?

In addition to work taking place within UNICEF on child marriage, there are a number of organizations and institutions working on various aspects of work to prevent and respond to child marriage, including in the area of economic drivers. Child Protection will focus on the first sub-question concerning the social expectations/drivers and relational aspects of the phenomenon. This includes how behaviours are conditioned, expectations around chastity and early child bearing etc.

Children affected by armed conflict (ending child recruitment by government forces)

Beyond the law, accountability and command and control, a fundamental challenge to ending child recruitment by government forces lies in the successful prevention of the conditions that give rise to recruitment and other violations of children's rights in the first place. While taking care not to seem to shift responsibility for preventing and addressing abuse from authorities and perpetrators to communities and children, deepening practical understanding of the social ecology of resilience – community and societal capacity to support and protect children in times of personal and communal stress, including conflict – is a strategic research theme that links a variety of issues confronted by children, families and service providers pre- and during conflict. This approach provides a conceptual link between systems approaches to child protection adopted in humanitarian settings, in post-conflict recovery, and in the transition to development. There are important linkages to be explored with wider research and evidence building on 'resilience'. The research questions need further development, though are expected to incorporate:

- What are the key factors underlying communal capacity to support children, including adolescents, in times of societal stress?
- What are the effective building blocks of resilient communities and, by extension, non-formal protection mechanisms, and what are the most effective means of strengthening them?

2.7 OUTCOME AREA 7 – SOCIAL INCLUSION

2

Outcome Area 7 of the Strategic Plan addresses issues of Social Inclusion, and encompasses UNICEF's work to make a measurable impact on child poverty, including income and living standards as well as enhanced access to services as a result of social protection measures. The outcome aims also to reduce the discrimination children may face based on socioeconomic status, ethnicity, gender, disability, origin or any other factor.

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Child poverty

In this 'flagship' area of work, UNICEF has already made great strides in formulating multi-dimensional approaches to child poverty as complementary to monetary poverty. However, further research will improve understanding of determinants of bottlenecks and barriers arising from 'financial access'; equity profiling; alignment of policy and programming work to government partners' poverty reduction and growth assumptions; understanding of the distribution of policy outputs and their relationship to child poverty and deprivation, and a clearer identification of the drivers of social inclusion for better policy responses. Specific, priority research questions include:

- What is the relationship in operational terms between monetary well-being (income poverty, consumption expenditures, inequality in income and consumption) and capabilities-based well-being (deprivation of services, social exclusion) children are exposed to?
- What are the programmatic and policy implications of different child poverty outcomes?
- How much have research findings on child poverty work been taken up by governments and influenced outcomes for children?
- How can the incidence of and effects of discrimination be isolated from other factors such as education level, wealth and income in the determination of social inclusion and poverty for children?

Social Protection

While UNICEF work on social protection has developed successfully in the past few years, there are evidence gaps in understanding the key building blocks and mechanisms that make up a social protection system that is based on cost-effective and integrated interventions. There are also clear evidence gaps in how to design and implement social protection programmes that affect social relations and promote social inclusion. Research in this area will generate evidence on the design, results and impact of social protection programmes, including on social inclusion, and improve advocacy and policy development work on countering discrimination in social protection. Specific, priority research questions include:

- How can Social Protection systems be designed and implemented to promote social inclusion?
- How can such system-orientated policy work be evaluated in terms of impact and cost effectiveness?
- What are the implications of different models of 'graduating' beneficiaries from social protection benefits and what lessons have been learned?

Public finance management and budgeting

UNICEF has gained good experience in supporting the supply side of public finance, seeking to improve the size, efficiency and equity of public investments for children. As this work is further scaled up, it will be important to find ways to better measure impact,

and to identify which tools and methods are yielding the best results. Specific, priority research questions include:

- How can the impact of advocacy and policy work on child sensitive public finance management be identified and evaluated?
- Which tools and methods have proven to be most effective in influencing public finance decision-making?
- How can the budget and public finance management (PFM) related bottlenecks and barriers be identified to inform UNICEF's equity-refocused programming including implementation of the MoRES?
- What are the main costing and cost-benefit analysis tools and what have been the lessons and challenges in UNICEF's experience and beyond?

Governance and social accountability (*see also note after section 2.9.*)

UNICEF is increasingly engaging with governance processes in order to address the needs of children and their families, including the most vulnerable. This work includes engaging in national decentralization reform processes to ensure that the potential benefits reach children. It also includes supporting local governments to effectively deliver the services under their mandate and reach the most disadvantaged. As this work evolves, it will be important to find ways to identify approaches that give results for children and to be able to measure impact of interventions. Specific, priority research questions include:

- In what ways can the different aspects of decentralization reform impact children?
- How can UNICEF country offices be strategically linked and anchored within decentralization reform processes?
- How can the results and impact of initiatives on decentralization and local governance be evaluated?
- Which tools and methods have proven to be most effective in improving local policy responses for children?

The cross-cutting nature of research reflects the strong interactions that exist among child outcomes, such as for example between health and nutrition, and the importance of issues that need to be mainstreamed across research in all outcome areas, such as gender or the urban dimension. However, this section presents research priorities that are “cross-cutting” in the sense that they are additions to what is expected to be adequately reflected in research grouped under the various outcome areas.

KEY PRIORITIES AND EXAMPLES OF RESEARCH QUESTIONS

Social norms and behaviour change

This involves research that improves identification and measurement of social norms, as well as understanding of key factors and interventions necessary for diffusion of/taking to scale positive changes in social norms and behaviours. While research on social norms and behaviours is required across outcome areas, this research priority is essential to better understand key social determinants and leverage the motivations for engaging – or not – in positive behaviours for children and designing programmatic action accordingly. Specific, priority research questions include:

- What are the most effective methodologies and interventions for determining if and to what degree a social norm promotes/hinders a desirable behaviour in a given group or society?
- What are the most effective methodologies and interventions for supporting behaviour change involving social norms?
- How can social norms change be measured?
- What pre-conditions or factors (i.e., voice, participation, accountability) are more likely to facilitate social and behaviour change at scale linked to programmatic outcomes?

Resilience

An area featuring prominently in the UNICEF Strategic Plan, resilience is relevant across all outcome areas and applies to both humanitarian and development contexts of UNICEF’s work. Resilience is seen as the chapeau for work on disasters, conflict and violence, climate change and economic crisis, recognizing that aspects of these areas may span beyond resilience work. The resilience agenda builds on UNICEF’s existing programme approaches, but also brings in new areas – a focus on wider and deeper risk analysis to inform programming, aligning humanitarian and development work and new partnerships. Research in this area will address a wide range of research questions through a resilience lens in the following areas:

- Documenting programming results in risk-prone, fragile and conflict-affected settings and how sectoral interventions (separately and inter-sectorally) contribute to building resilience;
- Costing resilience programming, linking to the ongoing broader cost benefit analysis for programming;
- Measuring the impact of an integrated/inter-sectoral approach in humanitarian settings to see how this approach to programming can build resilience;
- Researching the alignment and linking of humanitarian and development programming;
- Researching the links between social service delivery, peacebuilding and resilience as well as developing measurement frameworks for assessing the impact and contributions of basic social services to peacebuilding and resilience;
- Documenting the correlation between unequal access to education and peacebuilding and other themes related to the role of education and teachers in addressing various types of violence;

- Strengthening the evidence base on the impacts of disasters on children; documenting child centred disaster risk reduction approaches and their impact on resilience; documenting linkages between disaster risk and conflict; and researching the benefits, opportunities and challenges of advancing an all risks (conflict, climate, disasters) approach to programming.

Climate change and environmental sustainability

While climate change has strong implications for the adaptation agenda and the efforts to strengthen community resilience to various hazards, there are also broader environmental sustainability issues with strong impact on children. One concerns the urban environment, where an increasingly large proportion of the world's children will live, and the threats this environment presents for children. Another environmental problem with strong impact on children's health is indoor air pollution from household energy consumption. Specific, priority research questions include:

- How can specific threats to children in urban areas that arise from environmental sustainability issues be addressed?
- Which are the consequences of indoor air pollution from household energy requirements and which are the opportunities for sustainable energy solutions to provide affordable energy supplies while protecting children's health?

Adolescent well-being

Themes related to adolescents are highlighted in the Strategic Plan, and demographic trends point to their increased relevance in many countries. While research on the theme is present in various outcome areas, there is also a need to develop general tools and methods for analyzing critical aspects for this particular group. Specific, priority research questions include:

- By using a structural determinants approach, how can we improve our understanding of the determinants of adolescent well-being and its distribution among boys and girls?
- How can quality of data and methods for analyzing adolescent well-being be improved, including for cross-country comparisons and for gender-specific measures?
- What are the effective areas of policy interventions which may improve adolescent well-being, including viable options for transforming gender relations during adolescence?

Technological innovations, risks and opportunities for children

The increasing "hyper-connectedness" is a global trend that presents risks as well as opportunities for children. Technological innovations, and their linkages to children and development open up a very broad research field. There is also an increasing demand worldwide for more knowledge and guidance on the impact of ICTs on children's lives and on children as users. Specific, priority research questions include:

- How does technological innovation relate to equity concerns; which groups tend to be excluded from benefitting and how can this be addressed?
- How can appropriate research and survey tools be developed for monitoring child usage of internet and mobile technologies, with a view to addressing their impact on children's lives, particularly in LMICs?
- How can internet and mobile technologies be leveraged to promote development outcomes?

Early Childhood Development (ECD)

This research priority addresses the bottlenecks to scaling up ECD initiatives, including issues such as the limited understanding of demand for ECD; weak knowledge of strengthening systems and governance for ECD service delivery; demonstrating that equity is a matter of both access and quality; and the need for stronger measurement

tools to access child outcomes during the first few years of life. Specific, priority research questions include:

- What parents, families and caregivers identify as essential features of quality for ECD programmes?
- What governance functions of coordination, monitoring, standards and regulations at national and more decentralized levels are most effective?
- How can new technologies and approaches be used to measure child outcomes in the 1,000 days?

Building a Future Fit for Children: the Foresight Function

This area relates to forward-looking research in UNICEF that identifies emerging trends which affect children and their well-being. Understanding how these external factors impact children helps UNICEF better serve their needs. Indeed, the Strategic Plan cites risk-informed decision-making as an essential element of UNICEF governance and accountability. Research in this area will address a wide range of research questions and produce case studies, broadly within the three following umbrella areas:

- Which tools are effective in systematizing foresight work in UNICEF?
- What are critical emerging child-related trends? Which are globally relevant?
- What is the perspective of children and youth on the future? How can UNICEF incorporate this perspective into its work?

Mobilization of demand for accountability for the realization of children's rights

Whether viewed as part of the “social inclusion” agenda or as a separate, cross-cutting priority, there is strong consensus inside UNICEF on the importance of generating evidence related to accountability for the realization of children's rights. Research in this area should aim to improve our understanding of how to foster monitoring as well as community and child participation to ensure that services are relevant for disadvantaged and excluded populations and duty bearers are held accountable to their commitments. It should also aim to explore how to translate this into relevant programming interventions. Specific, priority research questions include:

- What accountability mechanisms, in what circumstances, improve service delivery, realizing the rights of children, including the most marginalized and excluded?
- How can public monitoring of services via ICTs result in improved accountability of duty-bearers and better outcomes for children?
- What do social accountability initiatives need, to result not merely in improved processes and services, but in better outcomes for children?
- How indispensable are incentives for assuring that service providers respond to citizens' social accountability claims?
- Of the four elements of accountability – standards, information/data, justification of performance and sanctions – which are essential for social accountability to function for children's rights?

Humanitarian

EMOPS is leading a research project around preparedness (a DFID funded joint research project with WFP on the return on investment for emergency preparedness. The study is quantifying the specific cost- and time-savings derived from preparedness interventions, using Chad, Madagascar and Pakistan as pilot countries to develop a predictive model for application in further contexts. The current phase of research will conclude at the end of January 2015, but DFID has recently committed funds to expand the scope of the project and support continued research into 2016.

3

Generating and disseminating research with our partners

PARTNERS

Most of UNICEF research is either commissioned or carried out in partnership with external researchers, and is rarely accomplished exclusively in-house. High-quality research requires an engagement with capable and experienced partners. To this end, whenever possible UNICEF strives to cast a broad net aiming to attract research partners of high calibre and with appropriate knowledge of the studied context. Partners include academic institutions, think-tanks, multilateral and bilateral development agencies, governments, the private sector, and civil society organizations. These partners are selected with a view to enhance the quantity, quality, relevance and dissemination of research. South-south collaborations are encouraged as are capacity building and local partnerships. The modalities of collaboration may span from commissioning specific research projects to research done together with partners on a cost-sharing basis, as well as broader and more long-term partnerships guided by a memorandum of understanding. Sometimes UNICEF's role may be limited to an advisory function on research projects funded and implemented by others.

For research, the decentralized structure of UNICEF is a strength to build on as it brings advantages in terms of the ability to respond to local demands and to connect to local partners. Through its field presence, UNICEF is linked to a vast global network of research institutions. The establishment of partnerships with local research institutions in programme countries is greatly valued by UNICEF, as it enhances relevance to local contexts, helps build local capacity and contributes to sustained impact. UNICEF Country Offices throughout the world play a key role in establishing these partnerships.

RESEARCH STANDARDS

The decentralized structure for research production also requires strong complementary functions to address the needs for coordination and identification of synergies and linkages. UNICEF regional offices and headquarter units (including the Office of Research) play an important role in that respect, including in establishing the connections and feed-back loops between local, regional and global research agendas and between research findings, global policies and programme guidance.

The decentralized structure also increases the importance of having common research standards and quality assurance mechanisms in place. UNICEF has been developing and clarifying its research standards and establishing guidance and capacity building tools to support the research function. Guidance on ethical research involving children has been put in place with a dedicated website containing guidance on issues such as informed consent, potential harms/benefits, privacy/confidentiality and payment/compensation. See <http://www.childethics.com/>.

UNICEF is also about to establish an organization-wide programme instruction for quality assurance for all research supported, whether undertaken with partners or independently. The Instruction outlines broad principles and minimum standards, including the following:

- Research proposals shall undergo an internal review to ensure: alignment with strategic priorities; capacity to undertake the project; technical quality and whether relevant collaborations across UNICEF offices and sectors have been established.
- All major research projects should have a research proposal prepared, detailing issues such as: how the proposed research contributes to existing knowledge; its rationale; research methodology; involvement of end-users and stakeholders, and the expected research review process.
- All research with an intended impact on programmes, policy and advocacy shall have a dissemination and advocacy plan included in the initial research proposal.
- All major research projects shall establish an external advisory board to provide guidance in addition to the internal review.
- All research involving primary data collection on children shall undergo an ethics review in accordance with established guidance.
- Prior to publication, all major research projects will undergo an external peer review.
- All research publications shall disclose the type of review the research was subject to and disclose any actual or potential conflict of interest.

Research partners with UNICEF should be prepared to engage in ways that are consistent with these standards, both in terms of ethics and quality assurance.

THE CRITICAL ROLE OF DISSEMINATION AND UPTAKE

Dissemination of research is a strategically planned process, which includes the targeting of knowledge products to specific audiences. During this process, the specific capacities and needs of different audiences are considered in order to maximize the potential use and/or application of the research findings to enhance decision-making processes and programming. It is therefore essential that an appropriate 'translation' of research be formulated, so that findings are readily applicable in a programmatic setting, and presented in ways that are easy to access for target audiences. This critical phase of the research process needs to be given adequate attention at an early stage of conceptualization. The involvement of stakeholders and end-users in the research process offers a great advantage in achieving this.

One of UNICEF's strengths as an organization engaging in research rests in its ability to connect research to its country programmes and to its global work on communication and advocacy. This is an advantage that may motivate research institutions to choose to work in partnership with UNICEF.

In this context, Country Offices should consider integrating research into the existing planning tools, i.e. into the Integrated Monitoring and Evaluation Plan (IMEP) and to closely link research with knowledge management.

Strong UNICEF research is shared and recognized both inside and outside the organization. Internally, an annual 'showcasing' exercise encourages different parts of UNICEF to share their best research. These are subject to a review process, after which a yearly publication is issued, highlighting the research projects that have been assessed as being particularly impactful or innovative.⁶ Research products are also disseminated via various databases, lessons learned, communities of practice and other knowledge management initiatives. Externally, research is promoted on UNICEF websites, at conferences and at high-level stakeholder meetings, as well as in both traditional and social media.

⁶ Information on the best of UNICEF Research-exercise available here <http://www.unicef-irc.org/KM/BOUR/>

While the importance should be underlined of assuring that research results reach policy makers and practitioners, dissemination through traditional academic channels, such as through articles in peer-reviewed journals, is also supported. Although the audience might be narrower, the quality stamp earned by publishing in scientific journals is often essential. UNICEF therefore encourages its staff or research partners to disseminate research findings through academic publishing. Staff should particularly seek to publish their work in open-source journals (e.g. PLoS – Public Library of Science www.plos.org) in order to enable genuinely wide access to UNICEF-supported research.

CONCLUSIONS: KEY MESSAGES FOR OUR PARTNERS

Responding to a rapidly changing world, UNICEF continues to seek new modalities and partnerships for research. This review of research priorities may be read as an open invitation to potential partners with common agendas to join forces with us. UNICEF is appreciative of having a truly global research network, with partners in the North as well as in the South. The following points highlight what UNICEF may bring to such partnerships:

- UNICEF has operations in over 150 countries, where research can be applied directly to improve well-being in diverse contexts and tap into local demand and local resources. This also means that UNICEF has some comparative advantages as a partner for research projects with a multi-country approach.
- UNICEF has a strong focus on quality assurance of its research. It is committed to high caliber ethical standards for research involving children and seeks to establish rigorous mechanisms to ensure these. UNICEF wants its partners to share these ambitions.
- UNICEF is engaged in global data collection efforts through the MICS (Multiple Indicator Cluster Surveys). The close link to these data collection efforts may often benefit research that the organization is engaged in.
- UNICEF provides excellent opportunities to link research to its well-established global and national communications and advocacy platforms. UNICEF seeks partners who share the ambition that research shall ultimately contribute to making a difference in childrens' lives.

