EVALUATION OF UNICEF MULTIPLE INDICATOR CLUSTER SURVEYS ROUND 3 (MICS3)

Final Report

2009
This report is submitted in accordance with UNICEF contract no. EO/ICC/2007/04 and prepared by the Evaluation Team working under the auspices of John Snow, Inc. Evaluation Team members include Saifuddin Ahmed, Disha Ali, Leila Bisharat, Allan Hill, Anne LaFond, Leo Morris, Beth Plowman, and Kerry Richter. Technical support staff members include Abigail Donner, Sascha Lamstein, Natasha Kanagat, Rebecca Klein, and Jessica Posner. All correspondence related to the Final Report should be addressed to Anne LaFond, Director of the JSI Center for Health Information, Monitoring, and Evaluation (alafond@jsi.com).
# Table of Contents

List of Abbreviations and Acronyms vii
Acknowledgments xi
Executive Summary xiii

## I. Introduction and Evaluation Framework
- MICS Basics 1
- The Evaluation of MICS3 2
- Evaluation Framework 3
- Methods 4

## II. Findings: MICS3 Data Collection and Quality
- Data Quality 7
- Data Collection and Processing 24

## III. Use of MICS3
- Use of MICS3 Data for Monitoring, Programming, and Policy Development 33
- Data Dissemination 44

## IV. Underlying Factors
- Organizational Structures 49
- Organizational Culture 64
- Resources 79

## V. External Environment
- Plans for Surveys 89

## VI. Looking Forward
- 97

## VII. Recommendations
- 103

Annexes 113
# List of Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACSD</td>
<td>Accelerated Child Survival and Development</td>
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<td>ADG</td>
<td>Additional Director General</td>
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<tr>
<td>AFD</td>
<td>Agence Française de Développement</td>
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<tr>
<td>AIDS</td>
<td>acquired immune deficiency syndrome</td>
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<td>AIS</td>
<td>AIDS Indicator Survey</td>
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<tr>
<td>BBS</td>
<td>Bangladesh Bureau of Statistics</td>
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<tr>
<td>CAR</td>
<td>Central Africa Republic</td>
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<tr>
<td>CCA</td>
<td>Common Country Assessments</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CEE/CIS</td>
<td>Central and Eastern Europe and the Commonwealth of Independent States</td>
</tr>
<tr>
<td>CI</td>
<td>confidence interval</td>
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<tr>
<td>CO</td>
<td>Country Office (of UNICEF)</td>
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<tr>
<td>CPAP</td>
<td>Country Program Action Plan</td>
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<tr>
<td>CPR</td>
<td>contraceptive prevalence rate</td>
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<tr>
<td>CRINGe</td>
<td>Country Office Report on Indicators and Goals</td>
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<tr>
<td>DEFF</td>
<td>design effect</td>
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<tr>
<td>DEFT</td>
<td>square root of the design effect</td>
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<tr>
<td>DHS</td>
<td>Demographic and Health Surveys</td>
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<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<tr>
<td>EXD</td>
<td>executive directive</td>
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<tr>
<td>FGM/C</td>
<td>female genital mutilation or cutting</td>
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<td>FHI</td>
<td>Family Health International</td>
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<td>GAVI</td>
<td>Global Alliance for Vaccines and Immunization</td>
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<td>GF</td>
<td>Global Fund to Fight AIDS, Tuberculosis and Malaria</td>
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<td>GNI</td>
<td>gross national income</td>
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<tr>
<td>GoB</td>
<td>Government of Bangladesh</td>
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<td>GSS</td>
<td>Ghana Statistical Service</td>
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<tr>
<td>HH</td>
<td>household</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
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<td>HQ</td>
<td>Headquarters (of UNICEF)</td>
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<tr>
<td>IAWG</td>
<td>interagency working group</td>
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<tr>
<td>IHSN</td>
<td>International Household Survey Network</td>
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<tr>
<td>ILO</td>
<td>International Labour Organization</td>
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<td>IMR</td>
<td>Infant mortality rate</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>INS</td>
<td>Institut National De La Statistique</td>
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<tr>
<td>IPSR</td>
<td>Institute for Population and Social Research</td>
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<tr>
<td>IRC</td>
<td>International Red Cross</td>
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<tr>
<td>ISSER</td>
<td>Institute of Statistical, Social, and Economic Research</td>
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<tr>
<td>ITN</td>
<td>insecticide-treated bed net</td>
</tr>
<tr>
<td>JMP</td>
<td>Joint Monitoring Program Task Force for Water and Sanitation</td>
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<tr>
<td>JSI</td>
<td>John Snow, Inc.</td>
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<tr>
<td>LOE</td>
<td>level of effort</td>
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<td>LSMS</td>
<td>World Bank/Living Standards Measurement Surveys</td>
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<tr>
<td>M&amp;E</td>
<td>monitoring and evaluation</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
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<tr>
<td>MENA</td>
<td>Middle East and North Africa</td>
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<tr>
<td>MERG</td>
<td>Monitoring and Evaluation Working Group</td>
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<tr>
<td>MICS</td>
<td>Multiple Indicator Cluster Surveys</td>
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<tr>
<td>MICS1</td>
<td>first round of MICS</td>
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<tr>
<td>MICS2</td>
<td>second round of MICS</td>
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<tr>
<td>MICS3</td>
<td>third round of MICS</td>
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<td>MICS4</td>
<td>fourth round of MICS</td>
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<tr>
<td>Mitra</td>
<td>Mitra and Associates</td>
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<tr>
<td>MMR</td>
<td>maternal mortality rate</td>
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<tr>
<td>MMR</td>
<td>Measles, Mumps, and Rubella</td>
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<tr>
<td>MoHFW</td>
<td>Ministry of Health and Family Welfare</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>NHSCP</td>
<td>UN National Household Survey Capability Program</td>
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<tr>
<td>NSO</td>
<td>National Statistical Office</td>
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<tr>
<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<td>OPSCEN</td>
<td>Operations Center [of UNICEF]</td>
</tr>
<tr>
<td>PAPFAM</td>
<td>Pan Arab Project for Family Health</td>
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<tr>
<td>PPP</td>
<td>program policy and procedures</td>
</tr>
<tr>
<td>PPS</td>
<td>probability proportional to size</td>
</tr>
<tr>
<td>PARIS21</td>
<td>Partnership in Statistics for Development in the 21st Century</td>
</tr>
<tr>
<td>PSU</td>
<td>primary sampling unit</td>
</tr>
<tr>
<td>R&amp;T</td>
<td>Research and Training Institute, Inc.</td>
</tr>
<tr>
<td>RBM</td>
<td>Roll Back Malaria</td>
</tr>
<tr>
<td>RHS</td>
<td>Reproductive Health Survey</td>
</tr>
<tr>
<td>RO</td>
<td>Regional Office (of UNICEF)</td>
</tr>
<tr>
<td>RTM</td>
<td>Research, Training, and Management</td>
</tr>
<tr>
<td>SBA</td>
<td>skilled birth attendant</td>
</tr>
<tr>
<td>SIS</td>
<td>Strategic Information Section</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
</tr>
<tr>
<td>TERG</td>
<td>Technical Evaluation Reference Group</td>
</tr>
<tr>
<td>TFR</td>
<td>total fertility rate</td>
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<tr>
<td>TPP</td>
<td>Technical Project Proposal</td>
</tr>
<tr>
<td>TQ</td>
<td>10 questions used to screen for childhood disabilities</td>
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<tr>
<td>U5R</td>
<td>Under 5 Mortality Rate</td>
</tr>
<tr>
<td>UIS</td>
<td>UNESCO Institute of Statistics</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>Acronym</td>
<td>Organization</td>
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<tr>
<td>UNGASS</td>
<td>UN General Assembly Special Session</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>United Nations Joint Programme on HIV/AIDS</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific, and Cultural Organization</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>U.S. Agency for International Development</td>
</tr>
<tr>
<td>UW</td>
<td>University of Wisconsin</td>
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<tr>
<td>WFFC</td>
<td>World Fit for Children</td>
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<tr>
<td>WFP</td>
<td>World Food Programme</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WHS</td>
<td>World Health Survey</td>
</tr>
<tr>
<td>WSC</td>
<td>World Summit for Children</td>
</tr>
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</table>
The MICS Round 3 (MICS 3) evaluation was commissioned by UNICEF and contracted to John Snow, Inc. (JSI). JSI would like to acknowledge the contribution and stunning collaboration provided by the following individuals and organizations who were instrumental in the development and maintenance of a high standard of quality during the evaluation process and allowed the Evaluation Team remarkable insights into the MICS experience.

First, we are very thankful to the key informants at global, regional and country levels who willingly shared their time and knowledge with us by responding to both interview and survey questions as well as document requests. This list includes but is not limited to:

- UNICEF staff involved in MICS 3 planning and execution at headquarters, regional and country levels
- MICS 3 implementing partners in country -- notably personnel at national statistical offices and agencies;
- Data users including line ministries and counterpart staff in-country;
- Representatives of donor and technical assistance agencies at multiple levels.

In addition, we gratefully acknowledge the MICS Evaluation Steering Committee convened by UNICEF who provided valuable guidance throughout the evaluation process. The Evaluation Office, the Strategic Information Section (SIS), and the Program Division at UNICEF headquarters supported the project throughout by providing access to documents, people, and experience. Their support and collaborative style should be commended.

This evaluation was conducted by a large team of professionals whose tireless efforts resulted in quality data, insightful analysis, and sound recommendations. The main Evaluation Team (named below) was supported by researchers in JSI field offices in Côte d’Ivoire, Georgia and Guyana and local research organizations in Ghana, Bangladesh and Thailand who conducted document reviews, collected data, and provided logistical support to the evaluation. In particular, we would also like to acknowledge the contributions of the following institutions, whose insights and creativity advanced the goals of the study:

- The University of Ghana, Institute of Statistical, Social and Economic Research (ISSER);
- Research, Training and Management (RTM) International (Bangladesh); and
- Mahidol University, Institute for Population and Social Research (IPSR, Thailand).

Finally, JSI would like to thank the core Evaluation Team members for their invaluable leadership and technical contribution to this evaluation. These team members include:

- Beth Plowman, Team Leader
- Allan Hill, Harvard School of Public Health
- Saifuddin Ahmed, Johns Hopkins School of Public Health
- Leo Morris, Consultant
- Leila Bisharat, Consultant
- Kerry Richter, Consultant
- Anne LaFond, JSI
- Disha Ali, JSI

Technical Resource Team: Jessica Posner (JSI), Sascha Lamstein (JSI), Natasha Kanagat (JSI), and Abigail Donner (HSPH).

The excellent finance and administrative support provided by Rebecca Klein, JSI, Megan Williams, JSI and Bill Bascus ensured the smooth implementation of this project.
Executive Summary

The Multiple Indicator Cluster Surveys (MICS) represent a bold undertaking on the part of United Nations Children’s Fund (UNICEF), which is the world’s lead agency for children. Initiated in the mid-1990s to monitor progress toward the World Summit for Children (WSC) goals, the program of household (HH) surveys has grown and changed rapidly. The visibility of the surveys and use of their results in myriad publications has increased dramatically. UNICEF has committed itself to launch the next round of the MICS (MICS4) in 2009. Therefore, several key decisions are imminent. For UNICEF, it is an opportune time to reflect on experiences to date and to make important decisions about future directions.

UNICEF commissioned this evaluation of the MICS—third round (MICS3)—to judge if the initiative’s results are justified by the expenses and commitments made, as well as to learn how best to use and improve the MICS and similar data in support of global goals and targets. An evaluation team based in John Snow, Inc., (JSI) conducted this evaluation. The evaluation assesses the quality and the impact of the MICS and aims to help UNICEF make decisions about the future of the MICS in light of changing information needs and partnerships.

The current environment for the MICS and other global monitoring tools is evolving rapidly, with new global partnerships—particularly those focused on health priorities—increasing demand for data on program performance and progress toward global goals. Demands from donors span the whole gamut of information from financial information, to process and coverage measures, to measurable outcomes and overall impact.

The evaluation team found that information from the MICS3 is clearly an important part of the evidence base for programming and policy within UNICEF. The MICS3 is valued among global-level partners for global monitoring and advocacy, particularly as related to the Millennium Development Goals (MDGs). At the country level, 9 out of 10 stakeholders interviewed felt that the MICS3 was an integral part of the country’s information base on women and children. In most countries examined, the quality of data was on a par with other respected global household survey efforts such as the Demographic and Health Surveys. The evaluation team concludes that the quality of the MICS3, in general, in terms of the type and magnitude of nonsampling errors is quite similar to those found in global household survey programs.

UNICEF exploited many aspects of its organizational structure, processes, and culture to make the MICS3 a high priority. The technical assistance (TA), tools, materials, and training developed and provided by UNICEF Headquarters (HQ) to support MICS implementation were held in very high regard. UNICEF Country Offices (COs) sought other donor support for financing. In many countries, multilateral and bilateral agencies contributed to the survey.

These positive findings have to be balanced against suggestions for further improvement and strengthening of the survey program. Although data quality in most countries was comparable with that in other global survey programs, significant data quality lapses were noted in several countries, as well as deviations from accepted norms in sampling and fieldwork procedures that did not adhere to recommended practice. A proliferation of indicators between Rounds 2 and 3 suggests weaknesses in processes and structures for strategic decision making. Final reports are often delayed for long periods to the point that the data are no longer seen as timely. UNICEF’s decentral-
ized structure meant that critical technical decisions were negotiated by those with the least knowledge and experience in the conduct of household surveys. Stakeholders have serious concerns about a move to a three-year cycle of MICS implementation and the heightened demand for coordination of any such effort.

Recommendations for UNICEF that arise from this evaluation take two forms: (a) overarching recommendations and (b) more detailed technical recommendations. Technical recommendations appear within the relevant sections of this report while the overarching recommendations appear in the concluding section. Among the “big picture” recommendations, the evaluation team suggests that UNICEF do the following:

- Clarify and reinforce the primary objective of the MICS—at the global level for monitoring and advocacy and at the national level for advocacy related to child health and well-being priorities. UNICEF is strongly encouraged to resist the dual pressures of expanding sample sizes to generate subnational estimates and content—particularly where indicators are not yet fully validated—by establishing parameters to better guide and support those decisions.
- Bolster quality assurance through several mechanisms. At the center of those efforts is recognition of the “mismatch” inherent within the decentralized organizational structure. As the team found, survey expertise resides at headquarters and, to a lesser extent, at regional levels, while the locus of technical decision making is at the country level. UNICEF is urged to rationalize decision-making processes so that those with greater expertise and experience are more closely involved, either directly or through consultant staff members. Resources for technical assistance should be expanded and processes formalized.
- Capitalize on its investment in the MICS to strengthen and appropriately expand the evidence base for children and women through means designed to complement the nationally representative household survey.
- Consider a move toward a permanently established information and coverage support center, including other data collection and analysis strategies focused on the situation of children and women in addition to the support of future MICS “rounds.”

These recommendations can assist UNICEF to capitalize on its investments in the MICS program to date. Moreover, if one looks forward, the recommendations aim to create an important, lasting resource through which UNICEF supports countries to develop and fully use an evidence base to improve the situation of children and women. Such a resource would serve countries well—both in the medium term (e.g., with Countdown 2015 and MDGs reporting) and beyond.
I. Introduction and Evaluation Framework

MICs Basics

The MICS is a household survey program developed by UNICEF to assist countries in filling data gaps for monitoring the situation of women and children. The MICS is intended to provide data to support analysis, planning, assessment, and advocacy for children in a range of areas including education, health, nutrition, children’s rights, and protection. MICS-generated data are further intended to fill gaps resulting from the paucity of quality vital registration data and other data sources on the situation of children and women. For the purpose of this report the term MICS refers to the survey program and the surveys themselves.

In the mid-1990s, the MICS program was developed to help countries measure progress toward the mid-decade goals of the WSC. The first round of the MICS, starting in 1995, was conducted in more than 60 countries. In 2000, a second round of approximately 65 surveys was conducted. The third round of MICS (MICS3) (2005–2007) provided an important monitoring tool for the World Fit for Children, the MDGs, and other major international commitments, such as the UN General Assembly Special Session (UNGASS) on HIV/AIDS and the Abuja targets for malaria. Data on 21 of the 48 MDG indicators were collected in MICS3, thereby offering the largest single source of data for MDG monitoring. MICS3 was implemented in more than 50 countries.

MICS3 was formally initiated through a directive issued by UNICEF’s Executive Director (Ex.Dir. CF/EXD/2004-20). UNICEF Country Offices (COs) were requested to take immediate action regarding indicators for reporting on the global situation and on progress toward global goals. Specifically, COs were asked to make a quick appraisal of (a) what the likely data gaps might be at mid-decade, (b) whether a household survey would be able to fill these data gaps, and (c) what the approximate cost of such a survey would be. COs were expected to plan and budget support to national partners in undertaking any needed survey activities including modifying the existing budgets, where possible. In some countries, UNICEF serves as the sole funder of the MICS while in other cases, other international and local partners contribute funding and support as well.

The MICS are typically implemented by government organizations guided by a memorandum of understanding (MOU) or a similar agreement with UNICEF. At the country level, a UNICEF staff person designated as the MICS Focal Point assumes responsibility for oversight of the survey. The CO monitoring and evaluation (M&E) officer often serves as the Focal Point, but those duties may be assumed by other categories of personnel as well. UNICEF emphasizes the “country-owned” nature of the MICS and collaborates closely with local partners to customize and review survey tools. Using templates and materials developed by UNICEF, government agencies play a central role in decisions regarding survey design, fieldwork organization, data processing, analysis, and dissemination. As part of the agreement, data generated from the MICS (including tabulations, reports, and datasets) are typically available for use and dissemination after publication of the final report.

Technical support and assistance for the survey is provided by UNICEF and other partners through a variety of means. One important form of technical assistance and training for the surveys is a series of UNICEF-led regional workshops covering topics of questionnaire content, sampling and survey implementation, data process-
ing, data quality and data analysis, and report writing and dissemination. UNICEF also provides a comprehensive manual on conducting the MICS (Multiple Indicator Cluster Survey Manual 2005: Monitoring the Situation of Children and Women). The manual contains model questionnaires; guidelines on sampling, training and fieldwork implementation; tabulation guidelines; data entry, editing, recoding, and tabulation programs; templates for calculating sample size and sample weights; and documentation on MICS topics. Finally, the UNICEF staff is available to help—through electronic communication, provision of consultants, or, in some cases, through a country visit.

The MICS’ questionnaires are structured as modular tools that can be customized to the needs of a country. At the base are three questionnaires: (a) a household questionnaire, (b) a questionnaire for women age 15–49, and (c) a questionnaire for children under the age of 5 (addressed to the mother or primary caretaker of the child). Modules are classified as core, additional, or optional. Across rounds, the surveys cover many of the same topics and provide updated estimates and trends for many indicators. In addition, new indicators are included to provide baseline data or estimates of coverage for other priority issues. In MICS3, key indicators on the following topics were measured:

- Nutrition: Nutritional status, breastfeeding, salt iodization, vitamin A, and low birth weight
- Child mortality
- Child health: Immunization, tetanus toxoid, care of illness, solid fuel use, malaria, and source and cost of supplies
- Environment: Water and sanitation, plus security of tenure and durability of housing
- Reproductive health: Contraception and unmet need, maternal and newborn health, and maternal mortality
- Child development
- Education: Literacy
- Child protection: Birth registration, child labor, child discipline, early marriage, polygyny, female genital mutilation or cutting, domestic violence, and disability
- AIDS and orphaned and vulnerable children: Knowledge and attitudes, sexual behavior, and support to orphaned and vulnerable children

Within the MICS program, the level of geographical disaggregation varies from country to country. In all countries, data are available at the national—including urban and rural—level. Almost all countries that participated in MICS3 provide geographical disaggregation to the regional—or subnational level. Several MICS3 surveys offer data down to another level, by province or state, depending on the geographic divisions. MICS indicators are also disaggregated by sex and age; by mother’s education; by wealth index (quintiles); and, typically, by ethnicity, language, or religion.

**The Evaluation of MICS3**

The MICS program represents a bold undertaking on the part of UNICEF, the United Nation's lead agency for children. Initiated a few short years ago to monitor progress toward the WSC goals, the program of household surveys has grown and changed rapidly. The visibility of the surveys and use of their results in myriad publications has increased dramatically. UNICEF has commissioned this evaluation of MICS3 in order to judge if the initiative’s results are justified by the expenses and commitments made, as well as to learn how best to use and improve the MICS and similar data in support of global goals and targets. An Evaluation Team based in John Snow, Inc., (JSI) has conducted this evaluation.

The current environment for MICS and other global monitoring tools is evolving rapidly, with new global partnerships, particularly related to health priorities, entering often. Those partnerships have increased demands for data on program performance and progress toward global goals. Overall, the M&E component of international initiatives and programs (e.g., Global Fund to Fight AIDS, Tuberculosis and Malaria; Global Alliance for Vaccines and Immunization; Gates Foundation; President’s Emergency Plan; and President’s Malaria Initiative) has expanded and demanded more detailed data from all concerned. Demands from donors span the whole gamut of information from financial information, to process and coverage measures, to measurable outcomes and overall impact.

UNICEF has committed itself to launch the next round of the MICS (MICS4) in 2009. Therefore, key decisions are imminent. One critical decision has already been made but not yet implemented: in the future, the MICS will be implemented in three-year cycles as opposed to the (roughly) five-year cycle used in the first three rounds. For UNICEF, it is an opportune time to reflect on experiences to date and to make important decisions on future directions. It has been more than 10 years since variants of the MICS were formally evaluated, with the last evaluation occurring between Rounds 1 and 2. To this end, this evaluation assesses the quality and the effect of the MICS and aims to help UNICEF make decisions about the fu-
ture of MICS in light of changing information needs and partnerships.

Evaluation Framework

The evaluation was guided by a framework depicted in figure I.1. The framework focuses on performance as the intended outcome of the MICS3 program and the intermediate and underlying factors influencing that performance. For the purposes of the evaluation, MICS performance is defined as follows:

- high-quality household surveys that fill gaps in data required to monitor the situation of children and to provide an evidence base for country- and global-level programming and policy development.

This definition was made operational through a focus on two components of MICS performance: quality and use. Those elements appear at the far-right-hand side of the diagram.

The performance of the MICS is determined, in large part, by the dual efforts of data collection and data dis-
The logic is simple: the processes of survey implementation have an important and direct effect on the resulting quality of the data. Likewise, the quality and extent of dissemination activities are influential factors in the ultimate use of the MICS data. Those two elements are considered throughout this report as intermediate factors.

The left-hand side of the diagram depicts UNICEF’s organizational environment as an underlying factor in MICS performance. Three sets of factors are used to describe and analyze UNICEF’s role in the MICS: organizational structures and operations, resources, and culture. Those factors can be described as follows:

- Structure and operations characterize UNICEF’s internal management arrangements and how the management of the MICS program has developed within that context. Operations are actions that UNICEF takes to achieve MICS performance. Three primary forms are considered throughout the evaluation: (a) tools and materials developed to support MICS implementation including the manual and the large range of templates available on http://www.childinfo.org, (b) regional training workshops, and (c) technical support and assistance.
- Culture defines the underlying organizational principles and how they are embodied in policies and practices. The influence of these factors on the MICS may appear as less concrete than organizational structures. Nonetheless, UNICEF’s organizational culture does provide a critical environment in which the MICS program is based.
- Both financial and human resources are what UNICEF contributes toward the achievement of MICS performance, as well as those contributions mobilized through other sources.

As shown in figure I.1, an important aspect of the evaluation framework is the representation of the degree of actual control that UNICEF wields over MICS performance. Although UNICEF controls aspects of its own organizational environment (structures, culture, and resources), those aspects are but contributors to the ultimate quality and use of MICS data. In sum, even though UNICEF acts and invests to bring about high-quality household surveys that fill gaps in the evidence base, the outcomes are beyond UNICEF’s ability to ensure. The role of other partners and actors—at both the global and country levels—ultimately determines the quality and use of the MICS.

The structure of this Evaluation Report is aligned with the evaluation framework. Report sections begin with consideration of MICS performance: data quality and use. If one is to help establish the linkages across levels of the framework, elements of MICS performance (data quality and use) must be followed by related intermediate factors (i.e., data collection and dissemination). Attention is then focused on the UNICEF organizational environment and finally on the external environment. Recommendations are made in two forms: those related to strategic direction of the MICS, which appear in a concluding section, and those that are related to specific technical aspects of the MICS, which appear within their relevant Evaluation Report section.

Two sets of tools were developed to help make the evaluation framework operational. The first was a set of performance benchmarks (Annex 1a) that aimed to establish references or standards against which performance can be judged. Each element of the framework has corresponding benchmarks that appear through this report. The country profiles (Annex 1b) were also developed to depict the elements of the evaluation framework in a summary form for each of the case study countries.

**Methods**

The evaluation used multiple methods for the collection, analysis, and interpretation of information. The methods are summarized here, but a full description appears in Annex 1c. Methods included are as follows:

**Online Surveys**

In those countries where MICS3 was conducted, nearly one thousand (969) individuals were invited to participate in an online survey. Respondents included UNICEF Country Representatives; MICS3 Focal Points; Country and Regional M&E officers and communications officers; staff members at implementing agencies and government agencies; members of in-country steering committees; UN agencies; and other donor agencies, consultants, and participants in the regional training workshops.

Distributed in three languages—English, French, and Russian—the survey was developed by Core Evaluation Team members with extensive input from UNICEF headquarters (HQ). Questions were formatted using scaled response categories with some open-ended questions. The
surveys were conducted using Survey Monkey software, a data collection tool with an intuitive web interface and with suitable survey design, data collection, and analysis options. A total of 350 people (36 percent) completed the survey, a response rate consistent with online survey experience.

For a separate Opt Out Online Survey, the target population included only UNICEF offices from those countries that decided not to conduct a MICS3. The Opt Out Online Survey was distributed only in English to 68 people, and 37 percent of those (25) completed the survey. The online survey tool can be found in Annex 1d.

Key Informant Interviews at Global, Regional, and Country Levels

At the global and regional levels, 47 key informant interviews were conducted by Evaluation Team members seeking information from individuals from UNICEF HQ and regional offices, as well as interagency working groups (IAWG), including the UN Statistics Division; the UN Development Programme (UNDP); the World Bank; the World Health Organization (WHO); the UN Educational, Scientific, and Cultural Organization (UNESCO); the UN Joint Programme on HIV/AIDS (UNAIDS); and others.

Other stakeholders included representatives of allied technical organizations including the President’s Malaria Initiative, the Gates Foundation, and the Demographic and Health Surveys (DHS). In eight in-depth study countries, more than 150 interviews were conducted using interview guides developed by Core Evaluation Team members for different target groups. Interviewees included the UNICEF CO staff (e.g., MICS Focal Point and M&E officer), the steering committee members, the implementing agency staff, the MICS3 field staff (i.e., supervisors, editors, and interviewers), the MICS stakeholders, and the bilateral and UN agency representatives.

Interview guides were field tested in Guyana by a Core Evaluation Team member and were revised accordingly. Lists of interviewees can be found in Annex 1e (Global-Level and Regional-Level Interviewees) and Annex 1f (Country-Level Interviewers and Interviewees).

Structured Document Review

Protocols and guidelines were developed for document reviews that were conducted at both the global and country levels. Those document reviews produced comparable results on issues that include survey fieldwork procedures, budgets, and expenditures for the MICS3 survey, as well as sampling design and procedures. For the expenditure analysis, UNICEF provided information on estimated MICS3 budgets, actual expenditures, funds allocated for the countries from HQ, expenditure incurred at the HQ level, and expenditure reported by the countries to HQ. A review of the sample design and conduct was carried out in the eight countries, as well as in Malawi. Using MICS3 reports, three team members independently evaluated each survey on 16 criteria, as well as providing an overall rating. For each of the 16 criteria, reference standards drawn from UNICEF, the UN, and the DHS were provided. The Sampling Assessment Guide can be found in Annex 1g.

Data Quality Assessment

Secondary analysis was conducted with MICS3 data for a limited number of MICS3 data sets. Those analyses took two forms: internal consistency and external comparison. Using nine MICS3 data sets, reviewers focused internal consistency checks on a number of widely accepted factors in data quality, as well as on some variables that are unique to the structure of the MICS3 questionnaire. External comparisons were carried out for four countries where the MICS3 and alternative household surveys were conducted with less than 24 months between fieldwork for the two surveys. Measures in this assessment included overall response rates, as well as three variables that are MDG indicators. The team examined the sampling variability (variance estimators, sample size, and design-effect) and data on children ever born between the MICS3 and the other surveys.

Compilation of Key Indicators (Taxonomy)

Available information was compiled into a comprehensive taxonomy of countries. Some summary indicators are shown in table I.1. The taxonomy allowed the Evaluation Team to have a broad overview of all countries where the MICS3 was conducted and to tally certain variables in-

3. Bangladesh, Côte d’Ivoire, Djibouti, Georgia, Ghana, Guyana, Kazakhstan, and Thailand
indicative of technical quality. Illustrative variables include
dates of the most recent census and household surveys;
use of additional or core modules; sample size and num-
ber of sample domains; length of time from completion
of fieldwork to production of a preliminary report; and
availability of micro-data.

In a major departure from the methods originally pro-
posed, Core Evaluation Team members were unable to
conduct county visits given budgetary constraints. In-
stead, the JSI MICS3 Evaluation Team drew on the avail-
ability of long-established JSI offices and staff members
in five countries, and they partnered with organizations
and institutions qualified for such work in three addition-
al countries. Those organizations included the following:

- The University of Ghana, Institute of Statistical, So-
cial, and Economic Research
- Research, Training, and Management International
  (Bangladesh)
- Mahidol University, Institute for Population and So-
cial Research (Thailand).

The extended team members, 16 individuals in total,
were responsible for conducting interviews, gathering
and reviewing documentation in accordance with proto-
cols, preparing reports describing the work and findings,
and debriefing with team members on findings. At the
conclusion of work, each team prepared a short syn-
opsis report and submitted their report along with all
interview notes, the document review protocol, and all
documents collected. Each team also participated in a
debriefing during which Core Evaluation Team members
asked questions on topics that remained unanswered or
unclear after they had reviewed the synopsis reports and
other deliverables.

Among the main limitations of the evaluation’s meth-
odologies are (a) lack of representativeness in the eight
in-depth study countries because countries were chosen
on a purposive basis; (b) lag in timing between the con-
clusion of MICS activities and this evaluation (in some
cases more than 1 year had passed, which made recall
difficult for respondents); and (c) conduct of the evalu-
ation before the MICS3 final report had been released in
half of the countries selected, which made it difficult or
impossible to delve into issues of data dissemination and
use. Further consideration of the evaluation’s limitations
appears in Annex 1c.

<table>
<thead>
<tr>
<th>Table I.1. Summary statistics from the MICS3 taxonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of surveys</td>
</tr>
<tr>
<td>Number of surveys by region:</td>
</tr>
<tr>
<td>Central and Eastern Europe and Commonwealth of Independent States</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
</tr>
<tr>
<td>Eastern and Southern Africa</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
</tr>
<tr>
<td>West and Central Africa</td>
</tr>
<tr>
<td>Percent of surveys implemented by national statistical authorities</td>
</tr>
<tr>
<td>Range of sample sizes</td>
</tr>
<tr>
<td>Average number of additional optional modules</td>
</tr>
<tr>
<td>Average number of months between the completion of fieldwork and the final report (for surveys without a final report, May 2008 was used as the end date)</td>
</tr>
</tbody>
</table>

Leading contributors: UNFPA, UNDP, USAID, World Bank, UN Resident Coordinator Fund, WHO, League of Arab States, CIDA, SIDA, DFID, WFP
II. Findings: MICS3 Data Collection and Quality

Data Quality

Key Findings

- The quality of the MICS3 data was assessed in detail in nine countries with reference to other surveys using a variety of methods. This set of nine surveys that were examined in detail conformed to international standards on a range of indicators with a few exceptions.
- Notable weaknesses—indicative of weak field supervision and editing, as well as respondent difficulty with the questions—include: the number of missing ages (month and calendar year for women respondents in Djibouti and Bangladesh); digit preference in age reporting (Djibouti and Bangladesh); low age-accuracy ratios (for children in Djibouti and adults females in Malawi); and lower than desired overall response rates (Bangladesh).
- In the limited comparisons made with data collected by the DHS of the U.S. Agency for International Development (USAID) within two years of the MICS, the response rates, the numbers of children ever born and surviving, and the estimates for a selected subset of the MDG indicators are very similar. Confidence intervals (CIs) and design effects (DEFFs) associated with key variables are also very similar in the two sets of surveys.
- Comparison of nonhealth variables was limited owing to the relative lack of standardized data sources and tabulations. Educational variables generated from the MICS were very similar to those generated by the DHS in countries where the two surveys were conducted. Literacy rates generated by the MICS are closely aligned with estimates generated by UNESCO with a few exceptions.
- Measures of risk of childhood disability do not appear to be comparable across countries and are, in general, higher than those found in prior smaller-scale studies. Future rounds of the MICS should consider the relative importance of data that are valid in specific settings, cultures, and languages versus data that are standardized and comparable. Measures for new areas of programming should be subject to rigorous data quality analyses.
- The Evaluation Team concludes that the quality of the MICS3, in general, in terms of the type and magnitude of nonsampling errors is quite similar to the quality of globally endorsed household survey programs.
- The review of sampling and data processing in nine countries documents the considerable progress that countries have made in terms of their capacity to design, implement, and process complex household surveys. This progress has, however, been achieved in part by the provision of considerable amounts of high-level technical assistance from the outside.
- Many countries faced problems with the production of an up-to-date sampling frame and heavy costs of relisting. Documentation of the different ways countries chose to update the sampling frame and manage the costly and time-consuming listing process could provide useful lessons for others.
- Opportunities for improvement include (a) considering alternative approaches to sampling similar to the compact segment at the second stage of sampling at the cluster (household) level used by the Reproductive Health Survey (RHS) of the Centers for Disease Control and Prevention (CDC); and (b) reducing the overall length of the questionnaire, which is now encouraging interviewers to skip questions and to search for shortcuts.
- The pressure to produce results for many subdivisions (i.e., sub-regions) of the country for guiding program decisions runs contrary to the central aim
of the MICS, which is to monitor progress toward global goals and agreements. The large size of some surveys has a negative effect on survey quality.

- Even with the expanding capacity of National Statistical Offices (NSOs), technical assistance demands will likely remain heavy. Technical assistance needs appear to cluster around sampling strategies and data processing. Although technical assistance is required for a broad range of countries, a pool of experienced advisors should be ready to help in particularly difficult circumstances (e.g., emergency situations and war zones).

- Experience was mixed with one regional institution contracted to provide technical support. UNICEF’s established practices of data review and sharing were generally not followed.

The Evaluation Team pursued a two-fold approach to assess the quality of the data generated through the MICS3. Determination of the quality of MICS3 was made as follows:

1. **Secondary analysis of MICS3 data** for a limited number of MICS3 data sets. The analyses took two forms: internal consistency and external comparison.
   - The internal consistency checks focused on a number of widely accepted indicators of data quality, as well as on some variables that are unique to the structure of the MICS3 questionnaire.
   - Reviewers used MICS3 data sets for nine countries. The measures examined for internal consistency were:
     - Sex ratio at birth and by age
     - Missing data on age of household members, month and year of birth for women respondents, age at first birth, and age at first union
     - Digit preference in age reporting
     - Age displacement
     - Completeness of reporting for children by adult respondent (mother or caretaker)
     - Consistency in completion of the child labor module
     - Consistency in reported insecticide-treated bed net (ITN) use.

2. **Assessment of survey sample design and conduct** by multiple reviewers using a standard instrument to score multiple aspects of the survey sample.

In addition, **external comparisons** were carried out for four countries where the MICS3 and other national-level surveys were conducted with fewer than 24 months between fieldwork for the two surveys. Measures in this assessment included overall response rates (a data quality measure) and key variables including children ever born, measles immunization coverage rates, skilled attendance at delivery, underweight prevalence, literacy rates, and net primary attendance ratios. The latter three indicators are MDG indicators. In addition, the Evaluation Team examined the sampling variability (variance estimators, sample size, and design-effect) between the MICS3 and other surveys.

In addition to the results presented in the following paragraphs, supplementary tables and figures can be found in Annex 2a, 2b, and 2c.

### Findings of the Internal Consistency Analyses

#### Extent of Missing Cases

The extent of missing data can flag a range of data quality problems and, if severe enough, can render a data set invalid. Recorded ages of household members flag their eligibility to serve as respondents for the more-detailed individual modules (e.g., women age 15–49 years or children age 5–14 years). According to those modules, indicators are generated using internationally agreed age ranges (e.g., literacy among 15- to 24-year-olds, exclusive breastfeeding among infants age 0–5 months). Therefore, accurate recording of ages of household members is a particularly important factor in data quality. Across the nine countries studied, the MICS data show variability

---

1. Bangladesh, Côte d’Ivoire, Djibouti, Georgia, Ghana, Guyana, Kazakhstan, Malawi, and Thailand.

2. Bangladesh, Côte d’Ivoire, Guyana, and Malawi.
in the extent of missing cases for key variables. As shown in table II.1, there were no missing responses for the reporting of age of household members in three countries (Bangladesh, Kazakhstan, and Thailand). Although such a finding may appear to indicate thoroughness in interviewer recording, it may also point to errors in data processing, secondary editing, or interviewer practices. In the remaining six countries, less than 1 percent of household members lacked information on their age.

The recording of month of birth and exact calendar year for individual women respondents, however, depicts a significant proportion of missing responses (table II.2). Variability between the countries studied is notable. For example, in Djibouti, the month of birth was missing for 64 percent of women respondents and the year of birth was missing for 44 percent of respondents. In contrast, countries including Georgia, Guyana, and Kazakhstan had less than 1 percent of the month or year of birth missing for women respondents. As can be expected, women in rural areas and of low education had the highest level of missing values. Age was imputed for a small proportion of respondents. Those variations are the result of differences in the intensity of field supervision, as well as the quality of the editing and recoding and imputation processes. The percentage of missing data, particularly year of birth, in Bangladesh and Djibouti is worrisome and is evidence of weaknesses in data quality.

**Digit Preference in Age Reporting**

The reporting of ages in household surveys is subject to error arising from a number of sources including a real lack of knowledge of exact age or date of birth, age reporting that is based on differing calendar concepts, mistakes in interviewer recording, and a tendency to state age in figures ending in certain digits. As is commonly found in household surveys, the surveys are characterized by significant heaping at certain ages according to the household listing of residents. Typically, this age heaping most frequently affects ages ending in digits 0 and 5. The Evaluation Team examined the degree of digit preference as a data quality measure for all nine study countries. Figure 1 in Annex 2a depicts distribution of reported age grouped by five-year intervals for the nine countries.

MICS3 data from some countries including Kazakhstan and Thailand show minimal age heaping, whereas age reporting in Bangladesh shows a significant level of age heaping. Whipple’s index or the Index of Concentration, which is a measure of systematic heaping at certain ages as a result of digit preference, also confirms this pattern (table II.3). Calculated for individuals 23 to 62 years of age, possible index values range from a minimum of 100, representing no concentration at all, to a maximum of 500, if all responses recorded ended in digits 0 and 5.

Figure II.1 shows the quality of MICS data for age heaping in the selected study countries as measured by the Index of Concentration. In Bangladesh, the index value was 212, which suggests “very rough data” according

<table>
<thead>
<tr>
<th>Country</th>
<th>Respondent’s date of birth</th>
<th>Age at first union</th>
<th>Age at first birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Month</td>
<td>Year</td>
<td>Month</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>89%</td>
<td>88%</td>
<td>43%</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>25%</td>
<td>&lt;1%</td>
<td>1%</td>
</tr>
<tr>
<td>Djibouti</td>
<td>64%</td>
<td>44%</td>
<td>21%</td>
</tr>
<tr>
<td>Georgia</td>
<td>&lt;1%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Ghana</td>
<td>45%</td>
<td>4%</td>
<td>49%</td>
</tr>
<tr>
<td>Guyana</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
<td>17%</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>&lt;1%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>Malawi</td>
<td>21%</td>
<td>&lt;1%</td>
<td>8%</td>
</tr>
<tr>
<td>Thailand</td>
<td>6%</td>
<td>&lt;1%</td>
<td>34%</td>
</tr>
</tbody>
</table>

3. The pattern of age distribution found in the Bangladesh MICS (2006) corresponds to that found in the Demographic and Health Survey (2004).
5. Whipple’s index was measured as $\frac{\sum (P_{25} + P_{30} + P_{35} + P_{40} + \ldots + P_{60})}{15 \sum (P_{25} + P_{30} + P_{35} + P_{40} + \ldots + P_{60})} \times 100$.

Table II.2. Missing responses to key questions of the MICS3 conducted in the nine case-study countries: Individual women respondents
Findings: MICS3 Data Collection and Quality

Table II.3. Index of concentration for the MICS3 conducted in the nine case-study countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>143</td>
<td>280</td>
<td>212</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>127</td>
<td>136</td>
<td>131</td>
</tr>
<tr>
<td>Djibouti</td>
<td>184</td>
<td>184</td>
<td>184</td>
</tr>
<tr>
<td>Georgia</td>
<td>130</td>
<td>124</td>
<td>127</td>
</tr>
<tr>
<td>Ghana</td>
<td>140</td>
<td>131</td>
<td>136</td>
</tr>
<tr>
<td>Guyana</td>
<td>113</td>
<td>110</td>
<td>112</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>108</td>
<td>109</td>
<td>109</td>
</tr>
<tr>
<td>Malawi</td>
<td>116</td>
<td>123</td>
<td>119</td>
</tr>
<tr>
<td>Thailand</td>
<td>110</td>
<td>113</td>
<td>111</td>
</tr>
</tbody>
</table>

Figure II.1: Index of Concentration (digit preference in age reporting) for the MICS3 conducted in the nine case study countries

- Kazakhstan (103)  •  highly accurate data < 105
- Guyana (105)  •  fairly accurate data 105–109.9
- Malawi (108)  •  approximate data 110–124.9
- Djibouti (161)  •  rough data 125–174.9
- Bangladesh (181)  •  very rough data ≥ 175


Age Displacement

Another threat to data quality in household surveys is the shifting of respondents from eligible to ineligible age groups. Survey interviewers often shift or displace the age of eligible respondents to reduce the number of interviews (i.e., their workload). The Evaluation Team examined age displacement in the MICS3 with two measures: “female–male” sex ratios and age ratios.

An age ratio\(^6\) is defined as the ratio of the population in the given age group to one-third of the sum of the population in the age group itself and the preceding and following groups. In the absence of extreme variations in past births, deaths, or migration, the three age groups are expected to be of linear form, and age ratio is approximately equal to 100. The results from the age-ratio analysis further confirm a mild to moderate level of age displacement (Annex 2a, figure 4).

We also estimated the “age-accuracy index” (see figure II.2a and II.2b), which is derived by taking the average of absolute deviation from 100 of the age ratios over all ages. In essence, the index calculates deviation to the classification by the UN for the threshold level of quality of census and survey data. In contrast, the estimate of the index is 109 in Kazakhstan, suggesting “highly accurate data.” However, stratification by gender in Bangladesh suggests that the problem was most pronounced in males, whereas the extent of age heaping among females was similar to other countries.

Because women age 15–49 are the targeted respondents for the women’s questionnaires, interviewers often assist them in enumerating their exact age. The survey interviews are usually conducted in private in the absence of a husband or other male residents, whereas no such opportunities are available to male residents. Traditionally in conservative settings, women may actually not know the exact age of their husband, and this fact may have significantly affected age heaping for males in Bangladesh. In most cases, the index values for males and females are quite similar within a given country with the exception of Bangladesh. The male value of the index in Bangladesh (280) is substantially higher than for females (143).

An age ratio\(^6\) is mathematically expressed as

\[
\text{Age Ratio} = \frac{1}{1/3 \sum (5P_{a-5} + 5P_a + 5P_{a+5})} \times 100
\]
Figure II.2a. Age-Accuracy Index for Children Age 0–4 (MICS3 Evaluation)

![Bar chart showing deviation for children age 0–4 across different countries including Bangladesh, Côte d'Ivoire, Djibouti, Georgia, Ghana, Guyana, Kazakhstan, Malawi, and Thailand.]

Figure II.2b. Age-Accuracy Index for Ages 5–54, According to Sex (MICS3 Evaluation)

![Bar chart showing deviation for ages 5–54 across different countries including Bangladesh, Côte d'Ivoire, Djibouti, Georgia, Ghana, Guyana, Kazakhstan, Malawi, and Thailand, with separate bars for males and females.]
Findings: MICS3 Data Collection and Quality

from an “ideal” linear distribution of age with every age category referenced against those immediately preceding and proceeding. As shown in figure II.2a for children, the values range from 1.7 in Kazakhstan (lowest) to 11.9 in Djibouti (highest). With those two exceptions, departures from “perfect” age reporting appear relatively consistent and quite acceptable across the countries examined. Among adults (figure II.2b), deviation from an idealized pattern of recorded ages is again quite consistent across most countries examined. Djibouti and Malawi stand out as two cases in which, for women in particular, recorded ages deviate from expected patterns.

In all countries, the female–male sex ratio suggests that there was a tendency by interviewers to displace the age at the extreme end of the reproductive life. This form of displacement may lead to low coverage of women age 15–19 and 45–49 (Annex 2a, figure 2) because they are either shifted into the younger or older ages, respectively. According to the Evaluation Team’s analysis, this effect
was most pronounced in Malawi and Djibouti and was the least evident in Bangladesh and Thailand.

Urban–rural differences were quite similar but age displacement was slightly more pronounced in rural areas (not shown in figures). Age displacement for children was most pronounced in Djibouti and Malawi. In those two countries, it appears that children four years of age were often recorded at older ages, particularly as five year olds (Annex 2a, figure 3). Internal consistency checks also focused on several issues specific to the MICS: wide-scale use of the 10 questions (TQ) on childhood disability; the consistent and correct use of modules; and completeness of child-specific data according to the adult respondent.

**Measuring Risk of Child Disability**

Results from the child disability module have been examined by researchers at the University of Wisconsin (UW) who were working under contract to UNICEF. As drawn from the draft report of the UW study, data quality as measured by completion rate (extent of unit nonresponse rate) for the disability module is quite good. Of the 20 countries examined, 6 have a 100 percent response rate, and 8 report less than 5 percent of missing data.

The MICS3 module was based on the ten screening questions (TQ) used to identify increased risk of disability. This approach has been used over the past 20 years and has been validated with clinical assessments. Studies that have applied the TQ approach in developing countries (Bangladesh, Jamaica, Kenya, Pakistan, and South Africa) have found a varying proportion of children who screen positive, ranging from 8.2 percent (Bangladesh) to 20.3 percent (Pakistan). Among the countries that used the TQ in the MICS3, 14 of 20 examined reported positive screening rates above 20 percent. In countries including Belize (44 percent), Cameroon (33 percent), Central African Republic (48 percent), Sierra Leone (34 percent), and Suriname (39 percent), at least one in three children was positively screened against one of the TQ.

Such variability in prevalence estimates can have many explanations, and it is not possible to conclude that the data reflect actual differences between countries. Because of this variability, the UW researchers suggest that the data produced should be used for cross-country comparison with caution.

Evaluation Team members expressed concern about how well training was standardized to ask the TQ consistently across countries. Indeed, as UNICEF advised in the MICS regional training workshops, the questions require proper adaptation to the conditions and language of the individual country. A challenge was balancing country-specific adaptations with the need to generate relatively comparable data across countries.

The Evaluation Team also points to the phrasing of one question in particular as a potential source of misunderstanding. Among the TQ, the question on speech ability among children age 3–9 (DA11 in the MICS3 module) is the underlying reason for the high estimates. The question “is [name]’s speech in any way different from normal?” may be difficult to interpret; responses vary by cultural context, understanding of the translation, and perceived meaning.

In relatively small-scale studies, the items in the TQ have been proven valid as a screening method when coupled with follow-up clinical assessment. The MICS3 experience with the disability module highlights a data quality issue brought about when applying methods from small-scale settings to large-scale nationally representative surveys. The data generated do not appear valid for cross-country comparisons. Variables that require considerable country-specific adaptation may stand at cross-purposes with large-scale surveys that emphasize more standardized approaches and comparable findings. Although not analyzed in this evaluation, data collected for other newer areas of programming (e.g., child development) should be similarly examined.

**Consistent Use of Modules**

Several forms of consistency checks were aimed at capturing the thoroughness of interviewers in using the relevant questionnaire modules. For example, all children age 5–14 identified in the household listing form were to subsequently complete the child labor module. The extent of missing data (i.e., failure to complete the child labor module for children age 5–14) was found to be very low (less than 1 percent of children age 5–14 had missing information on the module).

Another potential discrepancy that was examined dealt with the household’s reported possession of a bed net (from the optional ITN module) and the report of a child under age 5 sleeping under a net on the previous night (from the optional malaria module ML10). In particular, the analysis sought to identify cases in which mothers or caretakers claimed that their children under age 5
slept under a bed net in a home where there were no bed nets. Those modules were used by three of the countries included in the data quality assessment (Côte d’Ivoire, Ghana, and Malawi). The discrepant use of bed nets (i.e., the reported use of a bed net on the previous night by a child in a household that does not have a bed net) was very low. In Ghana, only 2.5 percent of the children reported that they have slept under a bed net even when their household interview reported no bed net was available. Likewise, in Malawi (1 percent) and Côte d’Ivoire (1.2 percent) the discrepant figures were very low.

**Missing Cases for Child Health Variables in Relation to Adult Respondent**

In contrast to some other household surveys, the MICS allows both mothers and other primary caretakers to provide information on children under age 5 in the household. For a number of variables related to child health, differences in “don’t know” responses and missing data were examined according to type of adult respondent: mother or other caretaker. The underlying assumption was that other caretakers would be less knowledge about the child’s health status, therefore resulting in a higher proportion of “don’t know” and missing responses. Variables examined included the age (in months) of weaning, whether the child ever received any vaccines, and whether the child was ill with a cough or a cough with difficult breathing in the prior 2 weeks.

Although a surprisingly high number of respondents were adults other than the mother, there was minimal variation in the completeness of reporting by type of respondent (Annex 2a, table 1). In sum, the availability of information on specific children did not vary by type of adult respondent.

**Findings of the External Comparisons**

In a subset of countries, MICS data were compared to DHS data. The comparisons were limited to cases in which the two surveys were fielded within a relatively short period (fewer than 24 months). The comparisons included overall response rates (see table II.4), completeness of reporting for a small number of variables, the average number of children ever born, variable estimates, and DEFFs for a small number of MDG indicators.

Response rates appear to be largely comparable with a few exceptions. For the DHS in Malawi and the AIDS Indicator Survey (AIS) in Côte d’Ivoire, the urban household response rate was affected by the number of dwellings that were selected that were either destroyed, were not a dwelling, or were vacant. In contrast, the data in the Malawi and Côte d’Ivoire MICS show that every urban household sampled (n = 3,489) was indeed an occupied household (n = 3,489). This potential for an underlying difference in response rates suggests that the approaches to final selection of households in the countries may have differed. Indeed, in Malawi, in each sample domain, the number of sampled households does equal the number occupied. The Bangladesh MICS overall response rate is quite low (82.6) and is reflective of possible problems with the conduct of field work.

<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Women’s overall response rate</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>DHS 2004</td>
<td>98.0</td>
<td>98.6</td>
<td>98.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICS 2006</td>
<td>82.9</td>
<td>82.8</td>
<td>82.6</td>
<td></td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>AIS 2005</td>
<td>82.9</td>
<td>88.1</td>
<td>85.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICS 2006</td>
<td>99.1</td>
<td>98.9</td>
<td>99.0</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>DHS 2003</td>
<td>93.0</td>
<td>95.5</td>
<td>94.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICS 2006</td>
<td>88.3</td>
<td>90.4</td>
<td>89.5</td>
<td></td>
</tr>
<tr>
<td>Guyana</td>
<td>AIS 2005</td>
<td>77.6</td>
<td>85.3</td>
<td>81.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICS 2006</td>
<td>92.2</td>
<td>91.7</td>
<td>91.8</td>
<td></td>
</tr>
<tr>
<td>Malawi</td>
<td>DHS 2004</td>
<td>90.7</td>
<td>94.0</td>
<td>93.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MICS 2006</td>
<td>95.2</td>
<td>94.9</td>
<td>95.0</td>
<td></td>
</tr>
</tbody>
</table>
Our comparison of point estimates, DEFFs, and the square root of DEFFs (DEFT)\(^7\) between the MICS and DHS data suggests quite similar results (Annex 2b, tables 1 and 2). For some estimates, the recall periods were different between the two surveys, and direct comparison should be interpreted cautiously. As an example, in the Bangladesh MICS, skilled attendance was measured for all births during the 2 years before the survey, but in the DHS, skilled attendance was measured for all births during the prior 5 years.

There are significant indications of increased trends in skilled birth attendants (SBAs) in the recent period, and the finding of a higher rate of SBAs in the MICS is not unexpected. In Malawi, the reporting of contraceptive prevalence rate (CPR) was slightly higher in the MICS, but the survey was conducted 2 years after the DHS (2006 versus 2004), and the result may reflect the recent trend of higher use of contraceptive methods, rather than a discrepancy.

As shown in Annex 2b, a more limited number of external comparisons could be made for education variables (percentage of pupils starting grade 1 who reached grade 5, literacy rate of 15- to 24-year-olds, and net attendance ratio among children age 6–13). Comparisons were limited by lack of standard tabulations across household survey programs and by unclear age categories and indicator definitions. Where available however, the MICS-generated educational data compared very closely with DHS values. A comparison of the literacy rate among women age 15–24 between the MICS3 and UNESCO estimates appears in table II.5. The UNESCO Institute of Statistics (UIS) estimates are generated using both direct methods (national census or household survey data) and modeled data. In general, the MICS and UIS data are very similar—as would be expected. Indeed, it is assumed that MICS data are incorporated into the UIS data set as they become available. In several cases, however (Ghana, Malawi, and Sierra Leone), the female youth literacy rates are quite different. Given the good general correspondence between the MICS and DHS data, discrepancies between MICS and UIS data are more likely to the result of the quality and timeliness of UIS data inputs.

The tables in Annex 2b also show the differences in DEFF\(_s\), which indicates how efficient the survey designs are in comparison to a simple random sample of the same size. A DEFF value of 1.0 indicates that the sample

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\(^7\) DEFF = 1 + \(\delta (n – 1)\), where DEFF is the design effect, \(\delta\) is the intraclass correlation for the statistic in question, and \(n\) is the average size of the cluster. Researchers also use the DEFT, which is the square root of the DEFF. The DEFT may be used to reduce variability, because the DEFT is less variable than the DEFF. The DEFT can also be used directly to estimate confidence intervals. The DEFT shows how much the sample standard error, and consequently the confidence intervals, increases. Thus, for example, if the DEFT is 3, the confidence intervals have to be 3 times as large as they would for a simple random sample.

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Table II.5. Comparison of the MICS and UNESCO estimates: female literacy for ages 15–24

<table>
<thead>
<tr>
<th>Country</th>
<th>UIS estimates</th>
<th>MICS</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>Albania</td>
<td>...</td>
<td>99.5</td>
<td>99.5</td>
</tr>
<tr>
<td>Algeria</td>
<td>...</td>
<td>89.0</td>
<td>89.8</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>...</td>
<td>69.6</td>
<td>71.7</td>
</tr>
<tr>
<td>Ghana</td>
<td>...</td>
<td>73.6</td>
<td>74.8</td>
</tr>
<tr>
<td>Jamaica</td>
<td>...</td>
<td>97.7</td>
<td>97.8</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>...</td>
<td>99.9</td>
<td>99.9</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>...</td>
<td>99.7</td>
<td>99.7</td>
</tr>
<tr>
<td>Malawi</td>
<td>...</td>
<td>80.1</td>
<td>81.1</td>
</tr>
<tr>
<td>Mongolia</td>
<td>...</td>
<td>97.5</td>
<td>97.4</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>37.4</td>
<td>39.5</td>
<td>41.7</td>
</tr>
<tr>
<td>Syrian Arab Republic</td>
<td>90.2</td>
<td>90.8</td>
<td>91.4</td>
</tr>
<tr>
<td>Thailand</td>
<td>...</td>
<td>98.0</td>
<td>98.0</td>
</tr>
</tbody>
</table>

Findings: MICS3 Data Collection and Quality

Design is as good as simple random sampling, whereas a value greater than 1.0 shows increased variance because of a complex and less-efficient design. Two factors determine the DEFF: (a) the number of households selected within each sampled cluster and (b) the degree of homogeneity among sampled groups. The estimated DEFFs of the MICS were not systematically different from those of the DHS. In general, both the MICS and DHS strive for similar cluster sizes, and, as a result, the DEFFs were quite similar, with few exceptions. The DEFF for the underweight prevalence measure in Malawi has a value of less than 1.0, which is unlikely from a complex survey, but not impossible.

A key element of the MICS is the assessment of levels and trends in under-5 mortality (5q0), which is the probability of a child born in a specified year to die before reaching the age of five if subject to current age-specific mortality rates. The simplest way to estimate trends before the survey is to first ask about the total numbers of children ever born alive and the numbers surviving for each woman, and then to convert the proportions of children dead into life-table measures of mortality using Brass/Trussell methods as set out in the UN Manual on Indirect Techniques of Demographic Estimation (1986). Here we compare the results for three countries for which the results of the DHS and MICS are similar to each other—Ghana, Guyana, and Malawi.

Figures II.4a, II.4b, and II.4c present a simple conversion of the proportions of children dead according to age of mother into the under-5 mortality rates in three surveys. These figures demonstrate that the MICS and DHS measures are reassuringly close. Using the UN MORTPAK procedures, which are based on the work of Brass (1968), Sullivan (1972), and Trussell (1975), we plotted the time trends in under-5 mortality for Malawi (figure II.4.a), Ghana (figure II.4.b), and Guyana (figure II.4.c) for each age group of mothers; we also used the Princeton West model life tables for interpolation. As in most applications of these methods, estimates from teenage mothers are not representative of the experience with child mortality of all mothers and the points to the right of each graph must be interpreted with caution. In general, however, we note a good correspondence between the sets of points for the two surveys (MICS3 and DHS), thus indicating that the MICS aggregate data on fertility and child survival compare favorably with those from a much larger and more elaborate survey program, the DHS.

For Malawi, the slow but steady improvement in child survival seems to be mirrored in both surveys. For Ghana,

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both surveys point to a stalling or even a slight worsening of child survival in the pre-survey period. In Guyana, which has much lower mortality, again the time trends match very well with the exception of the data on the teenagers from the DHS and AIS. This good correspondence using only the aggregate data is important to note in the context of when and where full birth histories will be needed.

As these analyses bear out, the simpler forms of MICS, which would ask only the aggregate questions on child survival, have produced estimates of the levels and trends of under-5 mortality that are very close to those from DHS. Both the DHS and the MICS show the upward bias in the estimates closest to the survey date because the data stem from teenage mothers known to have higher childhood mortality than women of other ages. The encouraging feature is that the interpretation from both surveys—in terms of broad levels and trends before the surveys—would be about the same.

Comparisons of the average number of children ever born and surviving were made for two countries: Malawi
and Ghana. Malawi was one of the few MICS3 countries which used a birth history for mortality estimation. The average numbers of children ever born are strikingly similar between the MICS and DHS in both countries (Annex 2b, tables 3a and 3b, and figures II.3a and II.3b).

The broader question about the value of the additional data on child survival provided in the birth histories is addressed elsewhere in this report, because in this section we are focusing primarily on data quality. Here we can conclude that the aggregate questions on children ever born and surviving are well worth including in as many of the MICS as possible because the results from the three countries looked at in detail suggest a good correspondence with the data from the largest demographic survey program in the world.

**Findings of the Survey Sample Assessment**

This portion of the MICS3 evaluation assesses sample design of a set of surveys from nine countries. Three methods were used to conduct this assessment:

a. Relying on expert opinion and reference standards drawn from UNICEF, the UN, and the DHS Evaluation Team members (a) reviewed sampling procedures as described in each country’s MICS3 report, (b) scored them on 16 criteria, and (c) provided an overall rating.

b. Interpretation of the document review protocol and review of documents gathered during the country studies.

c. Interviews with experts who serve as consultants to UNICEF for sampling issues related to MICS.

These sampling assessment methods are described in greater detail in Annex 1g. Details of the findings per country can be found in Annex 2c.

**Scored Sampling Assessment**

Evaluation Team members used a standardized protocol to review and score the sampling procedures in nine countries that conducted the MICS3. For each of 16 criteria and a summary score, reviews used a four-point scale (see table II.6), which gauged aspects of the sample design and procedures against reference standards. In this manner, each element was considered to have met standards, to have met standards with either major or minor weaknesses, or to have not met standards. See Annex 2c for results by case-study country.

Table II.7 explains the scoring metric and table II.8 summarizes the assessment under the agreed headings for each country. In general, adherence to the guidelines was very high. In the two key annexes to each report, some countries (e.g., Bangladesh) presented more-detailed information and added extra information apart from that in the recommended template. This reporting in itself is a measure of the country’s sampling competence. The scores themselves are quite high—a reflection of the theoretical understanding of the sampling design. Details on the implementation must come from the document reviews and the interviews.

The reviewers gave high scores overall, with the exception of Djibouti and Georgia, which had average scores that were markedly lower. There was a high degree of consistency across reviewers for almost all measures. Reviewers were generally able to judge sampling design from information included in the final report and associated annexes. Most countries used the standard report format, leading to a high degree of similarity in the text of the relevant sections. This similarity, plus the abbreviated nature of the final reports, made it difficult, in some cases, to fully understand the procedures used to design and implement the MICS3 sampling strategy and is a potential limitation to the method.

**Document Review Related to Sampling**

Broadly, the outline of the sample design is presented briefly in the introduction to each final report, and more technical details on the sampling are presented in Annexes 2a and 2c. In Annex 2c, full tables show DEFFs and confidence limits around a wide set of household, individual woman, and child indicators. In general, the SPSS (Statistical Package for the Social Sciences) complex sample design module was used to generate the sampling tables, so the reports are quite similar in presentation and content. Any description of the reasons for the choice of a particular sample is generally sparse. More attention is
given to presenting the number of strata and numbers of primary sampling units with very little discussion of the underlying rationale or possibilities for deviation from the standard approach.

The reports are largely silent on problems and difficulties and give only brief hints of difficulties with the plan proposed by the NSO (Thailand) or with the need to make adjustments according to accessibility issues or cost. Most reports are quite standardized because they are based on the outline made available by UNICEF headquarters (HQ). In one or two cases, the report does not match the details of the survey because this template was not fully amended to match the country’s experience.

Table II.6. Summary of the Data-Quality Assessment: The MICS3 in Nine Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Missing data (women’s month/year of birth)</th>
<th>Index of Concentration (women)</th>
<th>Age-accuracy index (children)</th>
<th>Response rates</th>
<th>Estimate comparison key variables</th>
<th>Children ever born and surviving</th>
<th>Under-5 mortality rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Very high</td>
<td>Rough data</td>
<td>Mid-level</td>
<td>Poor</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>Mid-level</td>
<td>Rough data</td>
<td>Mid-level</td>
<td>Good</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Djibouti</td>
<td>High</td>
<td>Very rough data</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>Low</td>
<td>Rough data</td>
<td>Mid-level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>Mid-level</td>
<td>Rough data</td>
<td>Low</td>
<td>Mid-level</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Guyana</td>
<td>Low</td>
<td>Approximate data</td>
<td>Low</td>
<td>Mid-level</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Low</td>
<td>Fairly accurate</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malawi</td>
<td>Mid-level</td>
<td>Approximate data</td>
<td>Mid-level</td>
<td></td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Thailand</td>
<td>Low</td>
<td>Fairly accurate</td>
<td>Mid-level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: gray shading = not available.

Table II.7. Scoring Metric

Scale to judge sample adequacy:

1: Sampling design did not meet standards.
2: Sampling design met standards with major weaknesses.
3: Sampling design met standards with minor weaknesses.
4: Sampling design fully met standards.

Table II.8. Average Sampling Assessment Score by Three Reviewers for the Nine Case-Study Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Bangladesh</th>
<th>Côte d’Ivoire</th>
<th>Djibouti</th>
<th>Georgia</th>
<th>Ghana</th>
<th>Guyana</th>
<th>Kazakhstan</th>
<th>Malawi</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>3.9</td>
<td>3.6</td>
<td>3.2</td>
<td>3.0</td>
<td>3.8</td>
<td>3.7</td>
<td>3.9</td>
<td>3.9</td>
<td>3.4</td>
</tr>
</tbody>
</table>

UNICEF MICS3 Evaluation Final Report 19
Discussion

The Evaluation Team found that MICS data, when examined in detail for nine case-study countries, was of good quality overall. In several instances, however, even after one made allowances for the inevitable approximations and errors in respondents’ reporting, data quality was poor. Compared to other global-level survey programs, the MICS demonstrates a greater variability in data quality on a country-by-country basis. For example, Kazakhstan, Thailand, and Guyana appear to have good data quality, whereas Bangladesh and Djibouti exhibit worrisome data quality findings. A summary of the data quality assessment across countries appears in table II.6. The Evaluation Team concludes that this variability is linked to the decentralized organization of the MICS and to corresponding difficulties in ensuring adherence to fixed standards.

As addressed in a subsequent section of this report, UNICEF has put in place several mechanisms that clearly contribute to acceptance of proven practices and that improve data quality. Among the mechanisms are the MICS Manual, regional training workshops, and technical assistance. As a counterbalance, the “country-led” nature of the MICS means that important technical details of sampling, survey implementation, and data analysis and processing are not immediately transparent to UNICEF and, therefore, are not amenable to correction. This lack stands in stark contrast to another international survey effort (i.e., the DHS) in which on-the-ground supervisory presence brings far greater assurance of adherence to standards.

The review of sampling procedures in nine countries shows how far countries have come in terms of their capacity to design, implement, and process complex household surveys. The improvement in sampling methods used in most health surveys since the early days of the WHO—sponsored Expanded Programme on Immunization (EPI) coverage surveys is remarkable. Around the world, the two-stage random sample cluster approach has now become the reference standard. This progress has been achieved through considerable amounts of high-level technical assistance from the outside, as well as through the growing experience of NSOs. The spin-off benefits of USAID’s DHS and the CDC’s RHS are important in building and consolidating this capacity.

Much of the gain is attributable to the standardization of the sample design and selection procedures—the two-stage weighted sample that begins with cluster selection using Probability Proportional to Size (PPS) and then proceeds to the next level of selection. For the most cases, this design serves the purpose of MICS very well, but in the future and in complex emergencies, for example, it may be necessary to consider other designs. Only a few countries examined appear to have the capacity to adapt the standard design to local needs. For the future, it is important to have—at least at the regional level—individual advisors with the experience and confidence to design nonstandard samples that address needs such as the oversampling of certain areas (e.g., slums, orphans, and the displaced) and the pressure to produce district-level statistics.

There is a strong case for broader acceptance of the UNICEF “template” as set out in the workshops and manuals. Even very experienced technicians found the PowerPoint presentations, manuals, and other UNICEF training materials to be very helpful. In alignment with other major survey efforts (e.g., RHS and DHS), those standard tools and approaches provide NSOs with consistent messages from the outside. Although standardization is desirable in studies designed to be internationally comparable, the approach to the sample design does place limits on the study in exceptional circumstances (Côte d’Ivoire after the war; Djibouti) where a more-nuanced approach might have proved programmatically more useful.

In many cases, depending on needs (level of disaggregation, interest in special populations), there should be adaptations and extensions. There are two ways in which this approach might be managed. First, advise that the main sample for MICS proceed as planned. A supplementary survey can then be appended—for example, either in the manner in which UNICEF carried out supplementary studies for the Accelerated Child Survival and Development evaluation as an adjunct to the MICS, or other surveys in Benin, Ghana, Mali, and Senegal. In Serbia, the MICS3 sample was devised to allow independent estimates of Roma living in Roma settlements. Likewise, a similar approach to oversampling for specific purposes was used by UN Habitat to acquire data on slum populations—by adding onto the standard DHS. Second, if there is need for a major adaptation (resulting from the lack of an acceptable frame, a civil disorder, or a disaster), then release of the funds could be conditioned on country

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16. The Evaluation Team attempted to use accepted, quantitative measures of data quality wherever possible. However, the final determination of “good” or “poor” data quality requires some judgment and interpretation.
UNICEF currently recommends several options in regard to building on available samples. One option is to use household listings from sampled enumeration areas of previous surveys (provided the listings are no more than 1 year old). Another option might be using the sampled enumeration areas from a prior household survey but creating a fresh household listing.

UNICEF should consider a more formal advisory that stipulates the following: where there is an existing reputable sample frame not more than 2 years old, then new households can be drawn from the already completed listings. If the sample frame is older or if there are suspicions about bias in the original frame, then there should be full relisting in the chosen clusters. UNICEF should further track and maintain documentation on the types of sampling strategies used and should review and assess their success in application. The usefulness of the MICS Manual may be boosted by adding a section on “What to do when there is no recent census or acceptable cartography.” This section could be supported by “illustrative analyses” for real cases (e.g., difficult cases such as Iraq and Sudan). Documentation of the different ways that countries chose to update the sampling frame and to manage the costly and time-consuming listing process could provide useful lessons for others.

According to interviews with experts who are most closely involved in supporting country operations, technical assistance around sampling issues is an important area of continued need. One internationally recognized sampling expert pointed to the twin recurring problems of (a) finding an up-to-date frame and (b) facing the persistent pressure to produce results for many subdivisions of the country, thereby leading to huge sample sizes. As might be expected, departures from the standard design required external technical support, particularly with the weighting process. The SPSS complex samples routine was also being used quite widely. However, even more-routine aspects of sampling design required external support.

As recounted by the independent expert, countries occasionally chose the wrong variables for the estimation of sample size: the key was to choose the variable with the smallest denominator and not the very rare events such as maternal deaths. Interviews with key UNICEF HQ staff members reiterated the need for external guidance. Because the people in many countries who conduct the MICS do not have prior experience with large-scale international survey programs, some standard practices are indeed being newly introduced. For example, in some countries, the calculation of standard errors was a newly introduced process that highlighted the fact that estimates cannot and should not be used without recognition of the confidence limits around each estimate.

For some countries, use of segmentation to deal with widely varying population sizes in some primary sampling units was also a new approach. Across all countries, new variables (e.g., water and sanitation) required variance calculation that was not typically performed previously. The MICS3 Manual and regional workshop materials served to lay the foundation for these new steps.

Even with the expanding capacity of NSOs to run cluster sample surveys, the technical assistance demands will remain quite heavy in future. UNICEF and other agencies might consider a kind of “Stats Corps”—a pool of experienced but temporary advisors who are ready to help in particularly difficult circumstances (i.e., emergency situations and war zones). UNICEF could take further steps to ensure data quality by facilitating the review of sample designs by sampling specialists. This technical review function could be organized with two-fold objectives: (a) to ensure appropriate sampling strategies and approaches and (b) to stimulate learning and exchange around sampling standards.

Another potential area for improvement is consideration of alternative approaches such as the compact segment at the second stage of sampling at the cluster (household) level used by CDC for the RHS. Although this approach may contribute to an increase in the DEFF, its primary purpose is to improve supervision and control in the field and to avoid common nonsampling errors.

In general, it is sensible for each MICS to focus on the large-denominator measures of coverage and to avoid collecting information (aggregate or regionally disaggregated) on relatively rare events, including mortality. If estimates of under-5 mortality are a clearly defined need within a country, then a full birth history is recommended as a way of increasing the number of events for analysis. UNICEF should resist the trend to further disaggregate and instead should challenge countries to focus on routine, facility-based data for local-level process and coverage measures. UNICEF could make a huge contribution in this area, showing how to use these data and how to index them against the community- and household-based survey data. There are enough data on the variance of key indicators now to produce tables that show minimum
sample sizes, which would be required to produce coverage estimates with acceptable confidence limits. UNICEF could then advise on the publication and appropriate use of local data where the CIs were very wide. If one looks ahead, in terms of measuring change between surveys, it also must be remembered that the standard errors of the differences from one period to another are often double those for a single year.

Figures II.5a and II.5b depict some of the difficulties encountered with variance in key estimates at the subnational level. For Ghana and Côte d’Ivoire, important measures of child health and education attainment—indeed, MDG indicators—have been estimated to the regional level. Ostensibly, those estimates would provide important and useful information to national- and regional-level program planners and managers. However, given the degree of variance affecting the estimates, their real utility is questionable. For example, for a regional health planner in the Central Region of Ghana, it is important to know that, on average, 20 percent of women are attended by a skilled person at delivery. However, given the degree of variability in that estimate, the “real” value lies (with 95 percent confidence) between 7 and 32 percent. That range, although far less useful for planning and program management and nearly impossible to use in monitoring trends or change, reflects the limited usefulness of some of the lower-level estimates that are based on sampling parameters.

Likewise, in Côte d’Ivoire, regional estimates of primary school completion rates are confounded by wide CIs, which render the utility of the data questionable. This problem does not affect all countries and all variables. However, if surveys planners were to anticipate and advocate for sample sizes needed for regional and even lower level estimates, the MICS must balance that demand against the feasibility of ensuring data quality in very large surveys.

In general, statisticians and data-processing staff members in the nine counties have jumped at the additional training and experience offered through the MICS workshops and manuals, which make some of the complexities of sample design more practical and manageable. Similarly, the provision of data-entry templates has improved the quality of the resulting data. If one looks ahead, it is clear that the more advanced skills to adapt standard samples or to amend or create new data entry templates are still concentrated in the hands of a few individuals. Spreading around this specialized knowledge could be a very valuable role for UNICEF—with the support of other UN agencies, including the UN Statistics Division—to undertake. In effect, the experience of conducting each MICS is creating some of the household survey capacity in the countries that the UN National Household Survey Capability Program set out to do earlier.

At a more-strategic level, the success or otherwise of a major household survey depends not on just two major elements but on the attention paid to dozens of smaller details. Technical assistance in one or two areas is useful but is not necessarily sufficient to guarantee a reliable outcome in the form of interpretable and trustworthy data and analyses. The capacity to design, implement, and analyze increasingly complex and demanding surveys is built gradually, often by one organization running one survey after another and learning from this experience at first hand. It is in everyone’s interest, therefore, to build this national capacity and to spread the expertise on how such household surveys are conducted within the NSOs and beyond into cognate departments and ministries.

The rigor and diligence required at every stage of the survey—from sampling to questionnaire design, from fieldwork to coding and data entry—will require intense supervision from within as well as external monitoring to ensure that international standards are respected if the data are to be used for international gauges of achievement and progress. The international community can help in several ways.

First, the primary aims of the survey have to be clearly stated and reinforced. The Evaluation Team feels that the value of MICS relates more to the monitoring of international goals and less to the demand for more local programmatic data. This distinction will help to resist the pressure to produce data at the district level with consequent effects on sample size and cost. To respond to local interest in district or even facility-based results, UNICEF should consider offering other alternatives to the household survey for estimating coverage or quality of the interventions. This option will relieve the pressure to conduct very large household surveys.

Second, for global monitoring of progress toward the MDGs, it is reasonable to insist on a formal review of each survey by an external panel of experts in the same way that other expert groups (e.g., the Child Health Epidemiology Reference Group) set standards and recommend particular treatment approaches in specific

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17. For these two indicators, an overall description of the width of CIs for nine countries appears in Annex 2a, tables 6 and 7.
Figure II.5a. Regional-Level Estimates with Confidence Intervals for Skilled Attendance at Delivery: Ghana, by region, MICS 2006

Figure II.5b. Regional-Level Estimates with Confidence Intervals for Primary School Completion Rates: Côte d’Ivoire, by region, MICS 2006

Note: Primary completion rate: Children having completed primary school; all children living in sampled households who are of primary school completion age.
technical areas. This reference group could have regional elements so that the peer review process could contribute further to learning and to building regional expertise in the sampling, study design, and data processing areas.

Third, UNICEF could help to improve the quality and feasibility of surveys by limiting the content of the questionnaires and assessments. If one uses the DEFFs and sampling errors associated with all the main variables, it is now possible to produce a hierarchy of indicators, some that will require the full sample and others that might be subsamples or special studies. By designing a smaller and more compact core, UNICEF can direct more effort toward producing an effective sample to measure indicators that cannot be assessed in any other way. In many cases, trend analyses can substitute for measurement of absolute levels, thus relieving much of the pressure on sampling and study design by exploiting routine data more effectively.

Data Collection and Processing

Key Findings

- UNICEF receives universal accolades for the quality and responsiveness of its technical assistance for data collection, both from in-country interviews and the online survey. The MICS3 Manual was reportedly used by the vast majority of those conducting fieldwork and was given high ratings. The regional workshops in survey design were also seen as well designed and extremely useful.

- Country-level authority for implementation decision making means that, despite the recognition of excellent technical assistance from UNICEF, deviation from best practices in data collection is common. Most of the case-study countries deviated from the MICS3 recommended practices for fieldwork preparation. Several countries did not translate the questionnaires but required interviewers to translate them into local languages in the field. The MICS3 guidelines for the length of training for supervisors, editors, and interviewers were typically shortened. The case-study countries measured most, but not all, of the MDG indicators.

- Data collection practices also often deviated from MICS3 guidelines. Recommended team composition for the field staff was followed in only half of the study countries. Data-quality controls were said to be followed in nearly all of the countries, but there is no written documentation for this assertion. In some cases, the large number of interviews per day per interviewer and the higher-than-recommended supervisor- or editor-to-interviewer ratios make it doubtful that quality controls were followed. Technical assistance to countries during the data collection stage could greatly improve data quality through reinforcement of recommended guidelines.

- The evaluation found several common problems affecting data collection that could be remedied to improve data quality. These concerns include scheduling fieldwork during a difficult season, out-of-date or incomplete household listings, funding issues affecting staff quality and time for fieldwork, problems with measuring equipment, and lack of measuring equipment.

A fundamental dynamic of the MICS is the balance sought between centrally developed norms and standards for the conduct of high-quality household surveys (as detailed in the MICS Manual and regional workshops) and the country-level authority for implementation decision making. The evaluation of the fieldwork element provides an opportunity to examine this dynamic and the factors that ideally result in high-quality and appropriately standardized survey data that are tailored to country decision-making needs.

Information about data collection for MICS3 was gathered through the eight country case studies (including both document review and interviews) and the online survey. The field staff was interviewed in each of the eight case-study countries about the details of fieldwork preparation and data collection. These staff gave direct accounts of how strategies were implemented. Indicators in the fieldwork area, which were measured using the document review tool, examined whether the UNICEF guidelines outlined in the regional workshops and manual were followed (Annex 2d, table 1). The in-country Evaluation Teams had mixed success in conducting the document review for the fieldwork area because many of the key aspects of data collection were undocumented. For this reason, many of the indicators were measured through interviews. Where possible, information on the indicators as reported in the document review table was triangulated with responses from one or more interviews.

Fieldwork Preparation

The three major areas examined in fieldwork preparation for the evaluation were questionnaire development, field staff recruitment, and field staff training. Findings in this
Adapting Questionnaires to Country-Level Needs and Context

First, the process of how adaptations were made was investigated through interviews with the survey coordinator, higher-level decision makers at the implementing agency, and members of the steering or technical committees. Second, a question-by-question comparison of each country questionnaire with the standard MICS3 questionnaire was conducted. This information was summarized for each country through documentation of the major additions and subtractions to the country questionnaires.

In general, those involved with adaptations in country did not report major difficulties and said that coverage of adaptations in the manual and regional trainings was adequate. However, we found a great deal of variation in how countries managed the selection of questionnaire modules. In some countries (Bangladesh, Georgia, and Kazakhstan), UNICEF was directly involved with module selection, and decisions were made jointly by the implementing agency and UNICEF. In others (Côte d’Ivoire, Ghana, and Thailand), the steering or technical committee was responsible for deciding on modules. In still others (Djibouti and Guyana), although the steering or technical committee was heavily involved in the decision, the implementing agency made the final decisions.

Respondents universally found the modular design of the questionnaire to be extremely flexible. When asked how they made decisions about what modules to include, they cited data needs and the country context as the main rationale. Only a few said that the decision-making process was contentious or required much debate. Some had trouble recalling how decisions were made because up to 2 years had passed.

Annex 2d, table 2, shows a summary of the questionnaire adaptations in each country. There is a great deal of variation in the changes made. Additions include details about antibiotics given for pneumonia (Côte d’Ivoire), questions on cigarette smoking (Georgia and Kazakhstan), and questions on arsenic poisoning and drowning (Bangladesh). Cuts to the questionnaire included immunization questions that were not relevant, vitamin A modules, and marriage status questions that did not suit the context.

Measurement of MDG Indicators

The MICS’s central goal of measuring MDG indicators at the global level was largely achieved by all of the countries we studied (Annex 2d, table 3). Indicators studied by all of the countries include whether there was a skilled attendant at delivery of the child, whether solid fuels were used, whether a child had measles immunization, and all of the child education indicators.

Bangladesh and Côte d’Ivoire made the decision not to measure child mortality, presumably because the indicators could be measured through another source. All of the countries except Kazakhstan did not measure maternal mortality, likely for the same reason. Bangladesh also did not conduct the anthropomorphic measurements or measure contraceptive prevalence. Both Guyana and Kazakhstan did not measure adult literacy by requiring those with minimal education to read a simple sentence, likely because basic education was assumed to be universal in those countries. Côte d’Ivoire was the only country not to include the HIV/AIDS module. At the same time, Ghana was the only country to include the sexual behavior module. Finally, only three countries (Bangladesh, Côte d’Ivoire, and Djibouti) included the questions on household characteristics needed to measure the MDG indicator on the percentage living in a slum household.

Translation of Questionnaires

Translation of the questionnaires, field-testing of translation, and adaptations and review by UNICEF was covered in the document review protocol and was also discussed in the interviews. Findings from the document review protocol are shown in Annex 2d, table 1.

There was great variation in how translation was handled in the eight countries and in the care taken for field-testing. The MICS Manual states that questionnaires should be translated into each local language before beginning fieldwork and then should be back-translated to ensure that the original meaning of the questions is retained. It states that “translation should never be left to the interviewer, since small differences in interpretation can destroy the reliability and validity of your data.” In the four country studies where the questionnaire was translated before fieldwork began (Bangladesh, Georgia, Kazakhstan, and Thailand), only Georgia reported that it did not complete
the step of back-translating (Annex 2d, table 1). Implementers in Georgia reported that they used a pretest to ensure that the translation was working.

In two of the countries, however, interviewers translated the questionnaire on an ad hoc basis from the standard questionnaire into local languages during fieldwork. In Ghana, one interviewer cited language problems as the major problem in the field. Interviewers were sometimes forced to seek someone to help translate for them because they did not speak the local language. In Djibouti, interviewers translated the questionnaire directly from the French into three local languages, and the training on translation was limited. Although interviewers cited language issues as one of their major difficulties in the field, they said that over time translation became easier.

**Pretesting of Questionnaires**

In general, we found that pretesting of questionnaires was briefer than UNICEF guidelines suggested (1–2 weeks as part of field staff training). Although all of the countries said that they pretested the questionnaires, the pretests varied in length with some as short as 1–2 days (Annex 2d, table 1). Most countries reported that the permanent staff of the implementing agency conducted the pretest. Although the MICS3 workshop materials recommend 2 weeks of training before pretesting the questionnaires, this guideline was followed only in Côte d’Ivoire, which conducted a 3-week pretest. Other countries conducted 1- or 2-day trainings for their permanent staff before pretesting. It should be remembered that for two of the countries, translation was done on an ad hoc basis in the field; therefore, in effect, no pretesting was done for some survey languages.

Pretesting is often rushed because inevitable delays in various aspects of survey preparation bump up against a fixed field starting date. Once recruitment and training begins, a momentum toward beginning fieldwork can lead to a lack of care in addressing language issues and other needed adjustments at the local level. Technical assistance is typically not sought at this stage, yet reinforcement of the importance of taking the time to do a thorough pretest through closer involvement of those with experience and expertise in this area would greatly improve data quality.

**Anthropomorphic Equipment and Training**

All of the countries reported that they obtained the anthropomorphic equipment from UNICEF. Two countries reported that delays in obtaining the equipment affected the starting date of the fieldwork: Kazakhstan, which delayed fieldwork while waiting for scales to arrive, and Guyana, which ultimately was not able to obtain salt-testing kits. Training on anthropometric measurement often did not follow UNICEF guidelines, which state that all staff members should be trained by practicing the measurement of children. In Guyana, the training consisted of having the field staff observe someone weigh and measure a child. Kazakhstan also reported that there was no field training on the equipment.

**Field Staff Recruitment and Qualifications**

One major difference in MICS implementation in the countries we studied was whether the permanent field staff from the implementing agency was used to conduct fieldwork or whether a temporary field staff was hired on an ad hoc basis. In Ghana, Kazakhstan, and Thailand permanent staff members from the implementing agency served as both interviewers and supervisors. In those countries, the field staff members tended to have many years of experience and were able to discuss differences between MICS and the other surveys they conducted. Fewer problems in the field were reported by those countries.

In Georgia and Côte d’Ivoire, a mix of temporary and permanent staff was used. In Bangladesh, a private research agency was contracted to conduct the fieldwork, and this agency recruited a temporary staff for the MICS. In Guyana, the implementing agency was conducting another national survey at the same time as MICS, which involved all permanent field staff members. For this reason, all of the MICS staff was recruited on a temporary basis and reportedly had fewer qualifications and less experience. Djibouti also recruited a field staff specifically for MICS.

Educational qualifications of the field staff varied by context. In Kazakhstan and Georgia, all staff members had advanced degrees and included several medical doctors. Bangladesh staff members had a minimum bachelor’s degree at all levels, and supervisors had at least a master’s degree. In Thailand and Côte d’Ivoire, supervisors had bachelor’s degrees and editors had graduate degrees, whereas interviewers had secondary school degrees. Finally, in Guyana and Djibouti, all staff members had at least a secondary school degree.

**Field Staff Training**

The evaluation found that countries did not often follow UNICEF guidelines in the critical area of field staff training.
training. Annex 2d, table 1, displays a number of indicators that measure various aspects of training a field staff. Although the MICS3 Manual recommends 2 weeks of interviewer training and gives an illustrative agenda for 12-day training, half of the countries conducted shorter trainings (Bangladesh, Guyana, Kazakhstan, and Thailand). Most countries said that their trainings included observations of interviewers and a pilot test, but Bangladesh included neither. The MICS3 Manual recommends that supervisors and editors receive 3 additional days of training over and above the general interviewer training. Only three countries met this guideline; in half of the countries, supervisors and editors received no additional training. However, all but one of the countries (Georgia) used permanent staff members as supervisors and editors.

Although the length and scope of training varied greatly by country, the field staff generally gave high ratings to the training and did not cite any major topics as having been missing or not covered adequately. Some field staff members in Thailand stated that the educational categories were confusing and that they needed more training in the vaccination area. One respondent in Côte d’Ivoire found that the definition of household head was unclear. In Guyana, some stakeholders that were interviewed said that, according to their observation of the training, they did not believe that the field staff received adequate training in the health and education areas.

Fieldwork Strategies

The MICS3 Manual and regional workshops give specific guidelines regarding how to conduct the fieldwork and how to maintain quality control. The evaluation found significant deviation from those practices in the countries studied, which occurred despite the fact that most countries received technical assistance from UNICEF and rated it highly and that widespread use of the MICS3 Manual for data collection was reported in the online survey.

Technical Support for Data Collection

The implementing agency staff members who responded to the online survey were relatively experienced in the fieldwork aspect of household surveys. One in three staff members (32 percent) reported that they were directly involved in the fieldwork phase of more than 10 household surveys, and another third (34 percent) said that they were involved in the fieldwork phase of between 4 and 10 household surveys. Despite this level of experience, most implementing agencies reported having received technical assistance from UNICEF for the fieldwork phase of the MICS3 (76 percent of implementing agency respondents in the online survey).

Of respondents to the online survey who said they were involved in the fieldwork and received technical assistance in fieldwork from UNICEF, 82.5 percent rated the assistance as good or very good. Interviews with survey coordinators from the implementing agencies in the study countries overwhelmingly showed positive opinions of the technical support they received from UNICEF. Survey coordinators universally reported that they got nearly immediate and high-quality assistance from the MICS group at HQ. As the section on UNICEF operations will discuss in more depth, the workshop on survey design got high ratings both in the country-level interviews and the online survey. Fully 48.5 percent of those involved in fieldwork for MICS3 strongly agreed that the survey design workshop prepared them for conducting the survey, with another 45.5 percent agreeing (94.0 percent total).

With regard to the MICS3 Manual, 91.7 percent of those in the online survey who were involved in the fieldwork said that they used the MICS Manual. Those who wrote in answers mentioned a variety of sections that they used, and several respondents said that they used the manual “as a reference on everything.” Ratings of the various sections were universally high: (a) regarding the fieldwork section, 44.6 percent rated it very good, and 47.2 percent rated it good (91.8 percent total); (b) preparing for data collection was rated 49.3 percent very good and 45.2 percent good (94.5 percent total); and (c) designing the questionnaires was rated 56.9 percent very good and 33.3 percent good (90.2 percent total). The instructions for interviewers, which served as a fieldwork manual in many countries, was rated extremely high: 52.1 percent very good and 45.1 percent good (97.2 percent total). The instructions for supervisors was rated 55.9 very good and 42.6 percent good (98.5 percent total).

Composition of Field Teams

The MICS3 Manual recommends that field teams consist of one supervisor, one editor, and four or five interviewers. A comparison of this guideline with the actual team composition used in the case-study countries is shown in Annex 2d, table 1. However, only half of the countries followed this model. In two countries (Bangladesh and
Thailand), the supervisor-to-interviewer ratio was lower (one supervisor:three interviewers, although editors were not presented for each team). In Guyana, several teams lacked an editor, whereas, in Kazakhstan, each team had six interviewers.

Annex 2d, table 1, also contains detail on the gender composition of teams in each country, which varied greatly. Only Georgia and Kazakhstan had all female interviewers. Bangladesh, Guyana, and Thailand had a majority of female interviewers on each team. In Guyana, staff members reported that they were not able to recruit enough female interviewers and thus included one or two men on each team. Members of the field staff said that they were glad to have the men carry the heavy anthropomorphic equipment. In Ghana and Côte d’Ivoire, most interviewers were male. With regard to language skills, all of the languages used in the survey were represented on the field staff teams.

**Quality Control Procedures in the Field**

UNICEF makes two major recommendations on quality control in the field: (a) that supervisors and field editors regularly observe interviewers and (b) that supervisors regularly make spot-checks of the household rosters to make sure that young children are not being missed. Although all survey coordinators and supervisors interviewed said that they regularly revisited households to check columns 2–8 of the household list, no country had written documentation to support that quality control of these data occurred. All coordinators and supervisors said that the supervisors regularly observed interviews, but, in one interview, an interviewer said that the supervisors sat in only at the beginning of fieldwork.

Several other findings indicate that it is unlikely that quality-control procedures were followed in several of the countries studied. The large number of interviews per day (nine on average) in Bangladesh per interviewer makes it unlikely that supervisors could keep up with their teams to any significant extent. In Kazakhstan, distances between households were great, and supervisors were responsible for doing all anthropomorphic measurements, which would be extremely time-consuming. Finally, in Ghana and Côte d’Ivoire, field workers reported that the heat affected their ability to be patient with difficulties in the field; also, because during the hot season many people migrate to cooler areas, it was difficult to find respondents at their usual residence.

It is not clear in each case why the survey was scheduled to take place in difficult weather or during the school break in those countries. In Kazakhstan, respondents reported that they were delayed waiting for the scales to arrive.
from UNICEF, which meant that fieldwork took place in the cold weather, causing the scales to be inoperable. Delayed recruitment of a survey coordinator was cited in Guyana. Because the adverse conditions undoubtedly affected data quality, such delays should be avoided if possible.

**Out-of-Date or Incomplete Household Listings**

Members of the field staff in two countries (Guyana and Georgia) said that at least some of the cluster maps and household listings provided were so out of date that it was impossible to select households according to the sampling protocol. In Guyana, teams called on the cartographic staff of the Bureau of Statistics to come to the field to clarify cluster boundaries in the coastal region.

In Georgia, the issue was more widespread. Out-of-date, incomplete, and inaccurate household listings had been selected for each cluster (based on the 2002 census frame). Given that those household listings had not been updated before MICS3 (reportedly due to the lack of the funding), finding sampled households was said to be an extremely complex and laborious process—particularly in the rural settings. This problem was further aggravated by unavailability of address books in the villages, where identification of households had to be done by relying only on family names and initials; in many villages, the same name can be attributed to many families. The field staff reported cases in which an entire cluster was unidentifiable and had to be replaced with a newly created cluster at the spur of the moment.

**Funding Issues**

In some of the countries studied, field staff members stated that their pay was lower than what they had received for other surveys. This lower rate is likely because standard rates for government surveys are lower than those implemented by private sector agencies. Nevertheless, the implementing agency stated in some cases that they recruited less-qualified staff members because of competition from another survey.

In Bangladesh, the funding issue was particularly troublesome because the field staff had to complete an average of nine household interviews per day; in this case, a private agency was contracted to conduct the fieldwork while the government statistics agency oversaw quality control. UNICEF staff members in Bangladesh said that they visited the field frequently and observed no problems, but it is difficult to imagine how quality could be maintained with such a tight field schedule.

**Problems with Measuring Equipment**

Besides the problems with scales freezing noted previously, other field teams reported problems with the scales breaking or being inoperable from the outset. Many teams reported that the measuring board was extremely heavy. Some reported health problems from carrying the boards and said that their assembling the board sometimes scared the children.

**Lack of Equipment**

Teams reported difficulties caused by having only one measuring board, scale, or salt kit per team. Some supervisors thus had to visit every household in the cluster to do the measurements, and it was difficult to coordinate those visits with the interview team.

**Data Processing**

MICS3 provided a solid package of software, training, standardized protocols, and model analysis tools to facilitate high-quality data processing and tabulation. Countries were assisted through the regional workshops, and additional support was provided by HQ and regional offices, as well as through field visits. MICS3 countries varied widely in terms of the existing capacity and the presence of country-specific situations that complicated data processing operations. In many cases, the full details of how the field checking, initial coding, and office checking were carried out were not available. This area of investigation suffered from the absence of field visits by core Evaluation Team members.

Interviewees described broad adherence to MICS3 protocols for data processing. Data were entered and preliminarily cleaned in country, and further cleaning for some surveys was done during the data analysis workshop or by UNICEF HQ. Countries used CSPro for double data entry and SPSS for data analysis. Data entry was generally conducted by temporary staff members hired and supervised by the NSO. Preliminary tabulations were sent to UNICEF HQ for review. In general, the coding scheme provided on the questionnaire was used to code data, although a few countries reported making changes to the coding scheme during data entry to meet coun-
try-specific needs. Overwhelmingly, countries reported cleaning data by comparing the dual entries to correct mistakes and by taking advantage of the preset ranges allowed for selected variables. Of note, informants in Kazakhstan report that their country did not do data cleaning but simply sent the completed SPSS tables to UNICEF HQ for checking.

When countries adhered to the MICS3 data-processing protocols and used the support provided, data processing appears to have gone well. The MICS3 Manual and data-processing workshop were widely used and received accolades. However, in many countries, those tools would likely not be sufficient without the additional support of the UNICEF technical assistance staff. Data processing fell short of international standards in a few countries where decisions made were inconsistent with MICS3 protocols, such as abandoning double data entry. An ongoing challenge for UNICEF and the MICS program is ensuring that all participating countries adhere to standards that guarantee a minimum level of data quality.

According to at least one regional office, errors were still observed during the third and fourth regional workshops on data archiving and report dissemination. The most critical ones concerned file structure and children’s age. Errors on structure affect the sample weights and should be properly handled. According to the West and Central Africa Regional MICS Coordinator, correction in that area took more time than expected owing to weak local capacity in data processing. More worrisome still were errors on age reporting as evidenced by the large-scale age heaping observed in several countries. Age intervenes in the calculation of most MICS3 indicators such as mortality rates, immunization coverage, school attainment rates and ratios, breastfeeding, birth registration, and anthropometric measurements. Anthropometric measures such as height for age and weight for age are very sensitive to errors on age reporting.

Most of these errors were made in the field by interviewers and couldn’t be corrected at the data-entry stage. Imputation of age during the data-processing stage when that age is not known or is inaccurately collected from the field should be avoided. Consistent with the findings from the data-quality assessment, improvement in age reporting should be a priority in future rounds to ensure MICS credibility and enhance its utility.

Drawing on lessons from West and Central Africa, UNICEF can save much time during the data-processing stage, the longest MICS stage. Timely onset of data entry, good communication between the field and the office, improved synchronization between the data collection team and the data entry team, and appropriate survey organization in the field are all substages that can help reduce MICS duration significantly.

Discussion

UNICEF’s decentralized organizational structure, as will be discussed in more detail later, has overarching implications for how quality-control standards for data collection are imposed and maintained. Although the technical assistance and training provided by UNICEF HQ are highly valued by those responsible for data collection at the country level, the evaluation found that quality standards are rarely completely followed. The reasons for this omission include resource constraints—mainly funding and the availability of skilled people—but also result from management decisions made at the country level. If technical assistance was continued through the field staff training, the pretesting, and the data collection phase itself, those steps could ensure greater adherence to quality-control guidelines.

As envisioned in the conceptual framework, a fairly clear relationship can be traced between the data-quality concerns expressed in the previous section and the deviation in quality-control standards found at the country level. At one extreme, Kazakhstan used experienced and professional field staff, had up-to-date household listings, and followed UNICEF’s recommended data-quality controls. At the other extreme, Bangladesh field staff members reported that they had to complete nine interviews per day and that their training did not include observation or written testing. Moreover, as previously discussed, other management decisions such as the timing of data collection can have considerable effects on quality.

Without the authority for UNICEF to insist that best practices are followed, even high-quality technical assistance loses its value. Judgment based on experience is needed to identify when skilled technical advice is needed and to allocate sufficient resources to maintain data quality. Commitment to quality—avoiding compromise on key aspects of design and implementation—is also vital. For such reasons, a higher level of skill must be available at the country level so that those making key decisions on survey implementation have the background and experience necessary. It is also vital that the importance of the MICS to the role of country- and regional-level monitoring and evaluation (M&E) staff be recognized so
that sufficient time and resources can be allocated to their efforts.

Finally, the Evaluation Team recommends that UNICEF HQ be given the authority to review and approve key decisions, either through HQ staff members themselves, designated consultants, or review panels. This change will ensure that best practices for data collection will be promoted in workshops, in all written materials, and in the technical assistance provided in the field.
III. Use of MICS3

Use of MICS3 Data for Monitoring, Programming, and Policy Development

Key Findings

- Strong evidence of MICS use was found at the global level in a range of global advocacy and reporting materials. It is very clearly valued as an important source of MDG reporting.
- The Evaluation Team found less evidence about MICS use at the country level beyond inclusion in a variety of reports. There was limited evidence of links made between the data and specific programming actions or policy developments for either UNICEF or governments.
- Significant barriers to data use were identified, including the ability to use results, sensitivity about results, and timeliness of reports.

According to the evaluation framework there are two criteria used to measure MICS performance. The first is data quality. The second is the use of MICS data. The MICS is said to be performing adequately if the MICS data provide an evidence base for monitoring, programming, and developing policy at the national and global level, and if stakeholders value and use those data. This section analyzes MICS performance in terms of data use at the global and country level, it reports on barriers to data use, and it suggests steps to address performance gaps.

Data Use at the Global Level

There is sound evidence that MICS data are used frequently and are highly valued for global-level monitoring of MDGs. Nearly every respondent interviewed for this evaluation reported that the MICS data play a critical role in MDG reporting. MICS data contribute to the calculation of 21 of the 48 MDGs indicators and are among the few sources of data for those 21 MDGs, which include the following:

- MDG1: eradicate extreme poverty and hunger;
- MDG2: achieve universal primary education;
- MDG4: reduce child mortality;
- MDG5: improve maternal health;
- MDG6: combat HIV/AIDS, malaria, and other diseases; and
- MDG7: ensure environmental sustainability.

Furthermore, interviews with members of interagency working groups, the Malaria Monitoring and Evaluation Reference Group, the Joint Monitoring Program Task Force for Water and Sanitation (JMP), and other global stakeholders highlighted the extensive and increasingly important contribution of MICS data to filling global-level data gaps and informing advocacy in public health, education, and child rights.

As they considered the enormously stepped-up global efforts to combat malaria, for example, respondents reported that the second round of MICS (MICS2) provided a baseline measure of ITN coverage. When MICS data were presented at the meeting of African health ministers, it provided the impetus for increased investment in raising coverage to 60 percent by 2010. Moreover, now that MICS3 and the DHS are aligned, a respondent reported that “we have comparable data points over time and are not putting a great burden on countries for [routine] data collection.” The same respondent added that UNICEF’s report titled “Malaria and Children: Progress in Inter-
vention Coverage” (UNICEF and Roll Back Malaria [RBM], 2007) presented data from MICS2 and MICS3, thereby demonstrating for the first time positive trends in coverage by ITNs. Such reports endorse global strategies for reducing malaria morbidity and mortality and are used in advocacy for greater investment. MICS3 data also revealed the large number of fevers that are treated as suspected malaria and the frequent use of inappropriate treatment. RBM and others have used those data to change recommended clinical practices and to focus on strengthening drug supply systems.

A second example comes from the JMP, which is a UNICEF/WHO group mandated to track MDG7 (water and sanitation). Every 2 years, the JMP puts out a report tracking national and global progress in water and sanitation. They cull household survey data from DHS, MICS, and other national surveys and plot the results for water supply and sanitation coverage at the national and regional levels. In intervening years, the JMP puts out a thematic report on a special subject. Next year's report on drinking-water quality will rely extensively on MICS data.1

Task force members reported that the MICS data on household water treatment was particularly timely because it provides national baseline data for more than 70 countries and supports efforts to increase emphasis on water treatment globally. The year 2008 is the UN International Year of Sanitation. The Task Force members are using MICS and other survey data to develop regional snapshots on Africa and Asia. The JMP presents those data in documents and at regional conferences, maintains a database, and serves as a resource for global monitoring of water and sanitation. As a respondent noted, “Those data are seen as very reliable and are quoted a lot. They are the gold standard because they give reliable estimates of the sanitation gap. I am not sure we could do it without the MICS.”

Another excellent example of MICS data use in policy and programming comes from the UNICEF-supported Global Study on Child Poverty and Disparities.2 The Global Study aims to find and generate evidence to assess policy responsiveness to outcomes related to child poverty and disparities. It brings together a core global network of child poverty experts in more than 45 countries to share knowledge and to collaborate across regions. Using a statistical and policy template found in a Global Study Guide, country teams gather data to identify and analyze the linkages between the interventions and outcomes. The analyses aim to assess how poverty affects children, including the factors that contribute to disparities in child outcomes, and the extent to which policies address those outcomes. The various MICS are a leading source of data for the analyses, along with aggregate statistics from the UN and other sources, the DHS, Living Standard Measurement Surveys (LSMS), or other survey microdata sets. A full range of available MICS data is used in the statistical templates including education, child health and nutrition, orphan and vulnerability status, disability (where available), and social protection. The resulting country analyses produce key messages targeted at decision makers who are able to adjust or create new policies that will benefit children. The target audience includes government ministers, heads of state, members of parliament, donors, civil society organization leaders, and the private sector.

UNICEF headquarters (HQ) is also a key user of MICS data for global advocacy and awareness-raising. HQ takes the lead on dissemination activities focused on raising awareness of issues critical to women and children (such as the decline in exclusive breastfeeding and the lack of progress toward child, newborn, and maternal survival). Table III.1 presents an illustrative list of UNICEF publications from the past 2 years only that draw on MICS data.3

In addition to the UNICEF reports, conferences, press releases, and other products and actions that exploit MICS data to further the goals of global advocacy for the rights of children, respondents reported that UNICEF is increasingly interested in taking a more strategic approach to knowledge management. As stated by a senior program offer, “UNICEF has a comparative advantage to investigate and use the MICS database. We are focusing more on learning at UNICEF and are dedicating more people to that role.”

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1. Data from UNICEF surveys on water quality also supplement the MICS data.
Other examples of the use of MICS data at the global level include the following:

- The Technical Evaluation Reference Group of the Global Fund (GF) to Fight AIDS, Tuberculosis, and Malaria has commissioned a 5-year evaluation of the GF. Study area 3 is an impact evaluation for which MICS data are being used.
- The MICS3 data on malaria are reported to the U.S. Congress.
- Pneumonia, a neglected disease, was put back on the agenda through the data reported in the State of the World’s Children and related advocacy by UNICEF, thus drawing attention to child survival broadly. Of note is the UNICEF publication titled “Pneumonia: The Forgotten Killer of Children,” published in September 2006.
- Conferences and publications have appeared related to “Tracking Progress in Maternal, Newborn, and Child Survival: Countdown to 2015. The 2008 Report.” As reported by one respondent: “The countdown report was a mixture of data and graphic representation of countries with the highest under-five mortality and coverage of different interventions. It relied considerably on the MICS reports.”
- A respondent noted, “The progress for children report that focused on nutrition received a large amount of press coverage. This report was particularly useful for ROs (Regional Offices) to discuss the nutrition situation in specific countries.”
- In the Equity in Health Meeting, UNICEF used the MICS data to provide background on countries, thus leading to eventual publication.
- The MICS3 data were used in a speech by the Minister of Health and Social Welfare in Bosnia and Herzegovina during a special session in the UN on the MDGs (New York, April, 1–2, 2008)
- Analysis of child labor and school attendance are based on evidence from the MICS and DHS, two surveys supported by UNICEF’s Division of Policy and Practice.
- Although not formally published, data on female genital mutilation or cutting (FGM/C) have been collected as part of MICS3 through a module that was adjusted to the DHS module to ensure data consistency across countries. A UNICEF-prepared technical note describing a coordinated strategy to abandon FGM/C, published in 2007, drew from both DHS and MICS data, although FGM/C does not appear in data from MICS3.

### Data Use in Reports and Publications

It is difficult to quantify the extent to which the MICS data are cited in official publications and journal articles. However, Web-based searches of various sites revealed the proliferation of MICS-related publications and citations. Evidence abounds indicating use of the MICS data in official publications of major international assistance organizations, as do references to the MICS data in peer-reviewed journals. The following are illustrative:

- On the UNICEF website are more than 500 published documents that cite the MICS (according to a search of Adobe PDF documents only). For other major funding organizations, a publications search on their websites (conducted in April 2008) reveals numerous MICS-related documents and citations: World Bank, 27; UN Development Programme, 97; and WHO, 1,020.

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**Table III.1. Illustrative List of UNICEF Publications from 2007 and 2008 That Draw on the MICS**

<table>
<thead>
<tr>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Children and the MDGs: Progress toward a World Fit for Children”</td>
<td>“State of the World’s Children: Child Survival”</td>
</tr>
<tr>
<td>“Immunization Summary”</td>
<td>“State of Africa’s Children”</td>
</tr>
<tr>
<td>“Vitamin A Supplementation: A Decade of Progress”</td>
<td>“Children and AIDS: Country Fact Sheets”</td>
</tr>
<tr>
<td></td>
<td>“The State of Asia-Pacific’s Children”</td>
</tr>
</tbody>
</table>

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**Note:** The data and analysis provided in this report are intended to reflect the findings and conclusions of the MICS evaluation and do not necessarily reflect the policies or views of any funding organization. The report is intended to serve as a valuable resource for policymakers, researchers, and others interested in the progress of child survival and related indicators.
A Google Scholar search conducted in May 2008 revealed 727 articles related to “Multiple Indicator Cluster Survey,” including articles and publications that cite the MICS data. If one narrows the search to scholarly papers published between 2003 and 2008, the number of references drops to 213. Clearly, those numbers may overestimate the frequency of actual use of the MICS data as opposed to a simple citation. Nevertheless, with the other searches noted previously, it indicates the widespread use of the MICS results in recent years as a reference or an example of a scholarly work.

Missing from this search are likely to be works published locally in countries that carried out the MICS3 and the articles and documents printed in languages other than English.

**Data Use at the Country Level**

Among respondents in the online survey, 89 percent agreed with the statement that MICS3 filled important data gaps in country. Likewise, 88 percent of online respondents agreed that MICS3 met country needs for global-level monitoring data. Those figures corroborate with data from country-level interviews and documentation concerning use of the MICS data in MDG reports.

Nearly all online respondents (more than 90 percent) reported that the MICS3 data had either “some” or “extensive” influence on key reports and actions in country, such as the situation analysis of women and children, advocacy, and MDG reporting (see table III.2). About 70 percent of respondents noted either some or extensive influence of MICS data on national and UNICEF policies and programs at the country level, as illustrated in figure III.1. It is worth noting that that the MICS3 data were perceived to have played a more-influential role in shaping UNICEF policies and programs than those of the host countries. Online survey respondents were more likely to cite MICS3 as having extensive influence on UNICEF policies (42 percent) and programs (47 percent) compared to national policies (28 percent) and programs (30 percent). Further detail on the perceived relationship between the MICS data and the policies and programs can be found in Annex 3, tables 3-1 and 3-2. It is not possible to quantify this difference or to confirm its validity through other data sources used for this evaluation.

The Evaluation Team recognizes that there is no idealized, linear relationship between specific data points and policy making. High-level decisions are more often based on the weight of accumulated evidence. Data generated from single surveys such as MICS3 may simply serve to reinforce existing knowledge about certain patterns or trends. In this view, it is unlikely that a respondent would cite a single data source as having extensive influence on policies or programs. Alternatively, one might conclude that using data to alter policies and programs is easier within the UNICEF CO than at the national level—a far more complex and layered environment. Finally, there may be differing perceptions of the value of the MICS data between UNICEF and the country decision makers and program staff. It may also indicate important barriers to data use within public-sector programs that should

<table>
<thead>
<tr>
<th>Module</th>
<th>No Influence</th>
<th>Limited Influence</th>
<th>Some Influence</th>
<th>Extensive Influence</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNICEF situation analysis of women and children</td>
<td>1%</td>
<td>3%</td>
<td>30%</td>
<td>67%</td>
<td>151</td>
</tr>
<tr>
<td>Advocacy related to child health, welfare, or rights</td>
<td>0%</td>
<td>3%</td>
<td>44%</td>
<td>53%</td>
<td>150</td>
</tr>
<tr>
<td>MDG reporting</td>
<td>0%</td>
<td>5%</td>
<td>45%</td>
<td>50%</td>
<td>150</td>
</tr>
</tbody>
</table>
be tackled to increase the benefit of the MICS and other data sources to local policy and programming.

The examples in table III.3 provided by respondents of country-level interviews and the online survey illustrate the breadth of application of the MICS data at the country level. In the online survey alone, 85 respondents provided at least one example of the use of MICS3 data. MICS data have been used for advocacy, reporting, program development, program monitoring and evaluation, and research on specific issues. For example, in The Gambia, a respondent reported that the “MICS provided relevant information on the situation of child health, thus informing policy with regards to the need to shift the focus from increasing access to services to improving the quality of service provision. It also led to the strategic decisions to have UNICEF-supported interventions target more deprived areas for more impact as well as responding to gaps in gender equity.”

Evidence from Côte d’Ivoire, Iraq, and Somali indicate that MICS data have guided countries that are in or coming out of civil conflict. In Côte d’Ivoire, respondents pointed out how MICS data raised awareness about education levels and about the need to target resources toward underserved populations and girls in particular. As one respondent noted, “MICS results showed a decline in indicators on the situation of women and children in Côte d’Ivoire. This [decline] created a general crisis of conscience. The technical ministries began to use the MICS data to identify strategies.” In some cases, MICS data have raised awareness of issues, have provided new opportunities for child-related programming, and have shed light on new or worsening problems. In other cases, data have led directly to action by government and partner agencies, including the introduction of new funding and changes in program priorities and strategies. Respondents reported a wide variety of users of MICS data, ranging from public-sector bureaucracies (including planners, implementers, and policy makers) to donor agencies.

Finally, online survey respondents reported on the contribution of optional MICS modules to the evidence base for national policies, strategies, and programs. Results are shown in table III.4. Most online survey responses indicate that the optional modules had some (rather than extensive) influence in countries. This lack of affirmation of the value of optional modules may have occurred because the decision to include such modules may not have been guided by a clear analysis of how data might be used; demand for these data may have been limited or perhaps were more difficult to interpret. Among all of the optional modules, the maternal mortality module was found by the largest proportion of respondents to have extensive influence (45 percent). The vast majority of the countries that used this module (15 out of 19) had no nationally representative estimate for maternal mortality at the time of the MICS3—indicating an important gap, which this module filled.

Figure III.2 provides a framework that may assist in analyzing country experience with the optional modules. The figure compares the percentage of countries using each optional module with the weighted-average reported influence of each module (through online survey responses). The gridlines were based on the average values for those two variables and were then used to interpret the relative level of subscription or use along with the relative level of influence.
### Table III.4. Influence of Optional Modules

<table>
<thead>
<tr>
<th>Module</th>
<th>No Influence</th>
<th>Limited Influence</th>
<th>Some Influence</th>
<th>Extensive Influence</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional household characteristics</td>
<td>6%</td>
<td>8%</td>
<td>66%</td>
<td>21%</td>
<td>53</td>
</tr>
<tr>
<td>Security of tenure and durability of housing</td>
<td>17%</td>
<td>6%</td>
<td>63%</td>
<td>14%</td>
<td>35</td>
</tr>
<tr>
<td>Child discipline</td>
<td>11%</td>
<td>18%</td>
<td>45%</td>
<td>27%</td>
<td>56</td>
</tr>
<tr>
<td>Source and cost of supplies for insecticide-treated bed nets, ORS packets, antibiotics, and antimalarials</td>
<td>8%</td>
<td>21%</td>
<td>34%</td>
<td>37%</td>
<td>38</td>
</tr>
<tr>
<td>Contraception and unmet need</td>
<td>6%</td>
<td>12%</td>
<td>63%</td>
<td>20%</td>
<td>51</td>
</tr>
<tr>
<td>Attitudes toward domestic violence</td>
<td>8%</td>
<td>10%</td>
<td>63%</td>
<td>19%</td>
<td>48</td>
</tr>
<tr>
<td>Child development</td>
<td>3%</td>
<td>15%</td>
<td>52%</td>
<td>31%</td>
<td>62</td>
</tr>
<tr>
<td>Disability</td>
<td>8%</td>
<td>13%</td>
<td>58%</td>
<td>21%</td>
<td>38</td>
</tr>
<tr>
<td>Maternal mortality</td>
<td>16%</td>
<td>11%</td>
<td>29%</td>
<td>45%</td>
<td>38</td>
</tr>
</tbody>
</table>

### Figure III.2. Assessment of the Use of Optional Modules: Subscriptions and Level of Influence

- Security of tenure and durability of housing
- Source and cost of supplies for ITNs, ORS packets, antibiotics, and antimalarials
- Maternal mortality
- Additional household characteristics
- Disability
- Attitude toward domestic violence
- Contraception and unmet need
- Child discipline
- Child development
Whereas the average ratings of influence for each module—scaled 1–4, from no influence to extensive influence—all clustered close to 3 (some influence), there was some indication that certain modules held an importance above others.

- **Highly used and relatively more influential.** One can generalize that modules that fall into the upper right-hand quadrant, such as the child development module, are highly subscribed and relatively more influential.
- **Highly used and less influential.** Modules, such as child discipline, that fall in the lower right-hand quadrant may be characterized as highly subscribed but relatively less influential. This positioning may suggest that more work is needed to define how they can be used in programming and perhaps to further examine issues of validity.
- **Less generally used and relatively more influential.** Modules that fall in the upper left-hand quadrant may be characterized as more specialized, perhaps relevant to a smaller number of countries but relatively more influential in those countries. The maternal mortality module is one example of this type of module.
- **Less generally used and less influential.** Finally, the lower left-hand quadrant suggests modules that are both less subscribed and relatively less influential.

UNICEF would want to examine those modules to determine their future role and relevance. The least used and least influential module was “security of tenure and durability of housing.” With continued demands on MICS to expand its content, it will be important to return to such tools to determine priority focus areas for data collection.

### Barriers to Data Use

Despite the wide variety of examples of use of MICS data, 42.7 percent of respondents felt that MICS data have not been used to the fullest extent possible in particular countries. Among the reasons cited for low levels of data use in country, the most frequent reasons included lack of ability to effectively use data, sensitivity about results, and delays in reporting data (figure III.3). Among online survey respondents, 44 percent cited the ability to use data as a moderate or extensive barrier to use, whereas slightly fewer cited sensitivity about the results (40 percent) and timeliness (37 percent). No single barrier to use stood out as substantially more influential than another.

The following statements from respondents describe the range of barriers to data use:
Data quality. “The quality of data related to the extent to which data report on districts and regions in a country may influence its use. For example, the data mostly reflect the national or macro level averages and are not really providing information at the decentralized levels of the country. There are differences, and disparity exists. Each disparity should be identified for specific actions. An HQ level senior staff member observed: “MICS is good for child rights monitoring and for producing global indicators but not for programming.”

- Sensitivity to the results and reluctance to share information. One respondent noted, “Government is reluctant to use some MICS indicators that are higher compared to the same indicators from other sources. Government is very reluctant to share the information with the wider public.” This observation may derive from government’s attitude that data should be kept by limited personnel, which would, in turn, provide additional benefits or authority to those who have access to the data. Also, sensitivity of certain indicators is a barrier. Another country-level respondent reported: “Sensitivity of certain indicators is a barrier. Government prefers to show some progress toward MDG goals, but survey results may contradict with what they would like to show.”

- Large amount of data. “The extent of use of MICS data varies by country. Part of the issue of underuse (and data are underused) is because there are so many data. People are busy and see the global monitoring focus dominating MICS. Modules are not adapted to country needs. If MICS were more streamlined to regional priorities, data use might be better.”

Delays Affecting Data Use

Respondents to the online survey also pointed to timeliness of the data and delays in the publication of the final report as a barrier to data use. Of those online survey respondents who felt that MICS3 data had not been fully used in the country, more than one-third cited timeliness as a moderate or extensive barrier.

Figure III.4 reports the actual number of months that passed between the end of fieldwork and the production of the final report for eight of the countries studied. The figure compares actual experience to the recommended time frame (4 months) from the MICS manual, thereby illustrating the delays that occur with the publication of final reports. Several of those countries (Ghana, Côte d’Ivoire, Thailand, and Bangladesh) are among the best
performers of countries conducting a MICS3 in terms of report timeliness.

The more common experience shows that countries require far longer than the estimated 4 months to process and analyze data and to prepare a final report. A comparison between MICS3 and DHS7 found that 44 percent of all MICS3 teams have produced a final report compared to the 61 percent of DHS teams working during the same period. As shown in figure III.5, among those countries that issued a final report, the average length of time between fieldwork completion and publication was more than 16 months for MICS3 compared to 11 months for DHS. In sum, the average MICS final report requires almost half a year longer to produce than a DHS report—when such MICS reports are available.

Of more concern are those MICS3 final reports that had not been issued at the time of the evaluation (figure III.6).

Among those countries, a median of 23 months has passed since the completion of fieldwork. This duration suggests that those reports are languishing and, presumably, have fallen in priority for the implementing agency. In stark contrast, for DHS reports that have not yet been finalized, only 11 months have lapsed since fieldwork.

Reasons for the delays in report publication varied. Respondents from both the online survey and the in-country interviews often cited (a) the time required for data processing or analysis, (b) agreement on data sets, (c) report writing, and (d) review processes as causes of delays. During interviews, respondents from several countries reported high staff turnover as the main reason for delays in producing the final report and further data dissemination. In some cases, staff members who were trained at the regional dissemination workshop left before the report was complete, indicating that new staff members who were responsible for dissemination did not have the necessary training or knowledge of MICS in that country to produce the report in a timely manner.

Delays in preparing final reports can be clearly linked to the time required for data processing and tabulations. Respondents to both the online survey and the in-country

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7. This analysis is based on 50 MICS3 reports with information available on fieldwork dates and a set of 33 standard DHS and Interim Surveys with fieldwork dates between 2005 and 2007. For surveys without a final report, the analysis is based on the number of months between completion of fieldwork and May 2008 (when this final draft report was prepared).
interviews recounted difficulties with the procedures. The time frame for data entry relative to data collection varied greatly by country. Kazakhstan reported the most rapid entry: all data were entered within 2–3 days of the interview. Georgia and Guyana required several months from the completion of fieldwork to enter all data. Other countries fell somewhere within this range.

Discussion

There are many possible ways to use MICS data, ranging from simply providing information about the status of populations to effecting changes in policy, resource allocation, and understanding of the challenges facing women and children. MICS data currently meet a variety of data needs, none of which is necessarily more important than another. Not all data lead to big changes. Often data are used to validate existing practices and decisions rather than to change them. However, it is fair to presume that the overall intent of any serious data-collection process—such as a national household survey like MICS—is to take action, whether that action is to maintain activities at the same level with the same focus (i.e., stay the course) or to allocate resources and change policy to achieve a better effect. It is this optic of appropriate and effective data use that should frame the future MICS strategy and activities.

It is clear that MICS data are highly valued and are used frequently at the global level to allocate resources, advocate for funds, raise awareness, monitor national progress toward the MDGs and poverty reduction, and change policy. Evidence collected through this evaluation shows that the most frequent use of MICS data takes place among international assistance organizations and global-level decision makers on behalf of country-level decision makers.

Use of MICS data at the country level appears to be less common and less prominent. Currently, it appears that data are filling gaps at the country level to enable countries to report on the situation of women and children to a greater extent than was possible in previous years. However, we find limited instances in which one can trace data to a clear policy or program decision. Using data for general awareness-raising about issues is common. However, examples of specific application of data in the course of resource allocation, policy direction, and program design are reportedly few. The reported barriers to data use at the country level confirm that some data users face challenges to interpreting and applying data, thus suggesting the need for technical assistance to translate relevant messages emanating from the MICS to the right audience and to facilitate greater confidence in the use of data. The timeliness of the release of data, a second common barrier, is even more amenable to change by the MICS program and other UNICEF communication and program staff members.

Until now, the main focus of the MICS program has been on producing good-quality data because without a system to ensure those data, use becomes irrelevant. Overtime, MICS has been increasingly “professionalized,” and local capacity for survey management has improved. It now seems appropriate to shift the focus from data production to creating capacity for using MICS data to greatest effect. The question remains, however, whether UNICEF should take responsibility for facilitating the use of MICS data beyond packaging it and disseminating it to various audiences. Suboptimal use of data in countries, both at the national and subnational levels, remains a gap that once filled will contribute to better health, education, and welfare in many developing countries. Given the nature of UNICEF as an organization known for action and intervention, as well as the increased emphasis within the organization to work smarter by using knowledge more effectively, taking a step toward building capacity for use of MICS data seems logical.

Overall, the findings related to the use of MICS data at the country level indicate that many respondents knew how data were used but lacked the personal knowledge and the actual experience of actually engaging in the process of using data. Reported instances of data use or data influencing policy and practice were not elaborated by descriptions of where and how decisions were made or of what whether data were critical to an action such as a new pattern of resource allocation or a new policy direction.

In addition, although respondents generally reported that UNICEF was a greater user of data at the country level than national counterparts, there is limited evidence from both the online survey and the country interviews about who in UNICEF used the data and how. There are two issues at play. One is the relevance of MICS data to the needs of program managers in country, particularly at the subnational level. One respondent described the use of data in country program offices as follows: “There are shortfalls and limitations here. The staff can tell you the percentage coverage at national level, but the data cannot be disaggregated to subnational or district level. The data are useful for addressing or setting global priorities (naming and shaming), but national level use is more limited.
We cannot allocate resources on the basis of these data.” The second issue is the capacity of the decision makers and programmers to make appropriate use of the data that do exist for national-level prioritization, resource allocation, and learning.

The tension between the demand for and utility of global-level monitoring data and the use of data for national and subnational program decisions is common to many global household survey programs. The strongest drive for data relates to global monitoring. Yet the extensive investment required to conduct a national survey and the dearth of good data require that the MICS also meet the needs of local decision makers and actors. The challenge is to find a way to maximize the benefit of this useful tool at the country level without compromising data quality and the international funding that comes to MICS because it is highly valued for global reporting. UNICEF, as keeper of the MICS, must find ways to manage this tension.

A first step is to state with clarity the intentions of MICS and its limitations. A second step is to facilitate the appropriate use of MICS and other data by (a) orienting and training the UNICEF staff in the interpretation and use of data and (b) finding ways to share those skills and practices with local partners. Actions that could be taken include the following:

- Set parameters for the inclusion of modules. Experience from the DHS shows that, given the length of the core questionnaire, no more than two or three additional modules can reasonably be added.\(^8\) The point here is not to compare the overall length of the MICS3 and DHS but to encourage UNICEF to develop decision-support tools for countries to determine the real need for additional and optional modules. In MICS3, countries added 8 additional and optional modules on average, and some countries used as many as 17, which suggests a lack of careful weighing of the pros and cons involved.

- Demonstrate a link between MICS data and key policy and resource allocation decisions in country. Ensure that appropriate analyses of MICS are available and targeted to decision makers at the right time (in time for annual planning, budgeting, and program reviews).

- Review MICS results in the context of other data sources in country to help decision makers and program staff members to understand the story told through a range of data sources.

- Advocate the benefits of using MICS data in policy making and programming in tandem with other data sources in country to facilitate evidence-based programming and policy making and to meet needs for subnational data.

- Encourage greater participation in MICS from UNICEF program and communication staff members and country counterparts in similar disciplines to help them (a) gain experience thinking about and working proactively with data and (b) gain a sense of ownership of the survey tool and its results.

- Increase investment at all levels both in UNICEF and country institutions. Dissemination activities make a difference and are important for making MICS data accessible to decision makers for facilitating data use.

- Consider how the central, regional, and country level can play a more well-defined and systematic role in facilitating the use of MICS data. Investment in MICS data production is well established. Investment in data dissemination and use are just beginning to take off. As elaborated in the following section, the infrastructure and interventions for improving data use have come late in the cycle and are not as well coordinated as those focusing on data production. There is also evidence of lack of clearly assigned responsibility in UNICEF and country partners to facilitate data dissemination and use.

- Set realistic expectations for the time required to conduct data processing, analyses, and report writing. If a short interval between completion of fieldwork and issuance of the final report is desired, then develop alternative products that meet data needs but are shorter and quicker to prepare. Train both UNICEF country and regional staff members and the implementing agency staff to identify early warning signs of difficulties in data processing and report writing and to provide the means to remedy those difficulties.

### Data Dissemination

#### Key Findings

- Data dissemination plans and tools have been developed by UNICEF. Support for data dissemination through further training and materials is needed for countries to fully develop local capacity and to support data use.

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• Regional offices (ROs) should take a more significant role in disseminating MICS data and may need support in doing so. Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS) should be looked to as a model for effective support of data dissemination.

• MICS data are available in various forms and formats, which is important and useful. Some creative methods of data dissemination are coming from the country level. UNICEF should continue to build on those experiences when planning future dissemination strategies.

The use of MICS data depends partly on the steps taken to package it for different purposes and audiences and its dissemination through existing or new channels. This evaluation found that—once the MICS data are analyzed—many countries approach data dissemination in a similar way, according to a recommended framework and guided by both the Strategic Information Section (SIS) and the communication staff in UNICEF offices. This section examines the support provided for dissemination, the dissemination methods used, and the challenges to successful dissemination, and it suggests steps for expanding dissemination activities. Interviews with global-level and country-level respondents, as well as the online survey, form the basis of this section.9

Support for Dissemination

At HQ, UNICEF’s investment in facilitating the dissemination of MICS results is relatively new. The staff was brought on in SIS for this purpose in 2006 while MICS was organizing the Round 4 workshops. In the regional workshops, MICS dissemination was afforded a higher priority than previously. However, there were few examples of dissemination practices on which to draw other than national reports. Since then, data dissemination activities and support for data dissemination have increased in quality and quantity. As noted by a UNICEF staff member,

It really started from nothing, in that UNICEF did not promote dissemination. The statistics office did design materials but did not save them as examples. Wall charts and other forms of data dissemination were done but not used for future work or to help the field. Over time and drawing on examples from the DHS, the SIS staff

Currently, the standard practice for dissemination of MICS starts with a preliminary report followed by the release of results in a final report. Results are disseminated using a variety of formats to a range of audiences. Countries use the dissemination templates creatively, adapting as needed. A number of new materials are also being prepared—new ideas for dissemination coming from the field. The site, http://www.childinfo.org, contains key findings and examples of data dissemination products from countries in web-based, printed, media-related, video, and other formats. Those examples are increasing in number and type and are now available to cross-fertilize among countries. The materials will be useful as tangible examples of dissemination tools in future MICS workshops.

Data Archiving

Data archiving is the practice of storing and sharing data sets and important accompanying documentation. With a focus on the availability of micro-data (household-level data), data archiving can improve the availability and accessibility of surveys and other types of data in forms that facilitate their analysis and use by decision makers, the research community, and other stakeholders. Data archiving is an important step toward systematic dissemination of MICS data and results and is an important contributor to the frequency and type of data use activities.

UNICEF advises countries to archive MICS data using the International Household Survey Network (IHSN) Microdata Management Toolkit. This toolkit is a data archiving program that provides a standard format for storing microdata from surveys, thus enabling access to data sets in country and globally. The coordinator of IHSN at the World Bank commended UNICEF for its systematic and serious focus on data archiving and for the example it sets for other household survey programs. For UNICEF, this commitment took the form of a series of regional workshops in which MICS data producers are introduced to the archiving tools and receive support to upload their MICS3 data sets. This support for countries’ archiving efforts is being provided on an on-going basis.

The increased attention to making MICS data sets available is evident on the http://www.childinfo.org website. In the first round of MICS, no data sets were available

9. Among the respondents of the online survey, 55 percent reported involvement in the use of MICS data, and 42.7 percent reported involvement in dissemination activities.
on the site. In the second round, 77 percent of all final reports were accompanied by data sets (44 data sets accompany 57 final reports). At the time of this evaluation, MICS3 reports and data sets were still actively being uploaded, but 85 percent of all final reports were already accompanied by the data set and readily accessible through downloading from the site.

Another important source of MICS data is DevInfo—a database system used to compile and disseminate data on human development (including, but not limited to MDG indicators). DevInfo allows users to query the database and to generate tables, graphs, and maps for reports and presentations that can later be used for evidence-based planning, results-focused monitoring, and advocacy purposes. Most countries reported that they archived MICS3 data using DevInfo.

**Dissemination Strategies**

Although ensuring that the data are stored and accessible is key, sharing the data with relevant stakeholders is paramount. As a benchmark of performance in this area, the Evaluation Team constructed a three-part measure for dissemination: the percentage of countries reporting that they had (a) a MICS dissemination plan, (b) a person or team responsible for dissemination, and (c) budgetary resources for dissemination. Although almost all online survey respondents reported that their country had at least one of the measures in place, only 65 percent of countries reported that they had all three at once.

Once MICS results were ready to be shared, various formats were used to disseminate them, ranging from seminars to press releases and from technical meetings to regional workshops. Tables III.5 and III.6 show the percentage of countries in the online survey that reported use of various data dissemination activities and tools for MICS3. As noted in table III.7, 70 percent of countries reported using six or more tools to disseminate MICS.

The most standard form of MICS data dissemination across countries is the preliminary or final report. A review of http://www.childinfo.org found that 46.2 percent of all MICS3 countries have a final report posted, as compared to 67.8 percent\(^{10}\) of MICS2 countries.

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\(^{10}\) This percentage was calculated by tabulating MICS2 countries on http://www.childinfo.org, which had a link to a report. Countries with links that included the word “draft” in the title and countries that had links only to data tables were considered to have no final report available.
Only about 35 percent of online respondents said that the MICS report from their countries was available on childinfo.org, which suggests a limited awareness of the forms of MICS dissemination outside the country context.

Having data available in various formats and locations aids dissemination. However, it is also important to ensure strong leadership in guiding dissemination activities. The UNICEF HQ staff reported that some ROs are more active than others in coordinating and facilitating data dissemination at the country level. UNICEF’s RO for CEE/CIS provides an excellent example of the range and focus of regional and country dissemination activities. This RO has defined a three-point strategy to ensure that MICS results are disseminated widely and are used for policy making and programming (see Annex 3, text box 3-1 for a further description). Characteristics of this strategy include a systematic approach to data dissemination, strong regional support, and active links between MICS and the communications staff.

The CEE/CIS UNICEF RO recently launched a MICS website to disseminate MICS data from the region. The UNICEF West and Central Africa RO provides another example of innovation to facilitate the use of MICS and other survey data. The RO communication staff member observed that further analysis is one of the weak aspects of the MICS or DHS process; the survey process usually ends when the main report is published. The main report is descriptive: [it] provides a snapshot of the current situation at the time of the survey, [which is] limited to showing the levels and patterns of selected indicators. Thus, at the beginning of February 2008, with assistance from UNICEF headquarters, the RO set up a database containing 13 MICS3 country and 4 recent DHS country datasets. The database aims to ensure that MICS and DHS datasets will be more fully used to inform regional priorities, such as disparities affecting children. The database is intended to assist with higher forms of analyses.

**Discussion**

The role of data dissemination activities in facilitating the use of MICS data should not be underestimated, particularly at the country level where use of MICS data is often limited. The importance of dissemination suggests the need for systematic and focused investment in human resources and organizational procedures that enable data dissemination and use.

Several respondents reported that resources devoted to dissemination activities are limited and a senior communications staff member reported that there is no clear responsibility for MICS dissemination. Responsibilities fall variably to headquarters MICS dissemination and [the] general communication staff, regional and country level communication officers, and the MICS focal points. However, few country communication officers attended the MICS training on data dissemination and many have limited experience in dealing with data like those that MICS produce.

As MICS enters Round 4, expanded emphasis on all aspects of data dissemination is warranted and advised.
IV. Underlying Factors

Organizational Structures

Key Findings

- UNICEF’s organizational structure through which MICS3 is implemented is suboptimal for the achievement of its objective. The organizational structure and differentiated roles and responsibilities at the headquarters (HQ), regional, and country levels introduce the following barriers to performance:
  — Authority for technical decisions and negotiation that resides with those least experienced and knowledgeable in household survey methodologies.
  — Delays caused by staff turnover and review processes.
  — Less-than-effective quality-assurance measures because the need for technical assistance may be overlooked locally, resulting in late-stage “rescue” operations.
- UNICEF’s regionally based staff members see their roles vis-à-vis the MICS differently, ranging from those who see themselves simply as a liaison or organizer linking countries and HQ to those who actively play an on-going and substantive technical role in survey operations.
- Key operational decisions are negotiated or made at the country level by UNICEF staff members who have limited professional training in household survey techniques.
- The three tools or interventions that UNICEF uses to support the MICS are (a) regional training workshops; (b) tools and materials developed to support MICS implementation, including the MICS Manual; and (c) technical support and assistance. This UNICEF-developed set of tools and operations, taken together, is highly valued in the conduct of every MICS. The technical assistance received is rated very highly and, indeed, seems an essential element of the MICS operations. Steps should be taken to expand and formalize the provision of technical assistance.
- Although building capacity was not a specifically stated objective of the MICS program, respondents to the online survey believe that the MICS has indeed built capacity. Nearly all respondents who work in implementing agencies (97 percent) felt that the survey helped to build local capacity.

This section describes the manner in which UNICEF organizes and directs its resources toward the goal of MICS performance. Unlike the other levels in the evaluation framework where other non-UNICEF actors can “make or break” MICS performance, elements at this level are completely under the control of UNICEF. The evaluation examined three aspects of the UNICEF organizational environment: (a) its organizational structures and operations, (b) its culture, and (c) resources. Taken together, these are the “levers” that UNICEF can maneuver and adjust to achieve its central MICS objective: high-quality household surveys that are used to fill gaps in the evidence base regarding the situation of women and children.

Management Structures

UNICEF manages the MICS program and each survey within its existing organizational structures. Roles and responsibilities span three levels: HQ, regional office (RO), and country office (CO) (see figure IV.1). Although this structure is consistent with standard working relationships within UNICEF, the Evaluation Team found that it is far from optimal in terms of ensuring MICS
performance. The strengths and weaknesses of the organizational structure and operations are examined in the following section.

The roles and responsibilities for MICS3 are differentiated by organizational level (table IV.1). At the HQ level, the MICS has been implemented with exceedingly slim staffing levels. Three professional staff members (one assigned only 50 percent of the time to MICS) have been responsible for MICS3. Respondents at all levels described the efforts of the MICS unit as tireless. In addition to the small staff within the MICS unit, a number of consultants with specialized skills have been hired from 2005 to 2007 to support the work of the unit. Overall, the Evaluation Team considers this staffing level to be far below the minimum required to coordinate and support a global household survey initiative such as the MICS.

If it were not for the extraordinary efforts of individuals within the unit, the MICS3 could easily have fallen far short of its objective, and resulted in poor–quality and partially completed survey efforts with limited credibility and use. Future efforts will require a restructuring of the human resources available for MICS management and oversight at HQ. As noted elsewhere in this report, the skills and resources devoted to communications and MICS data dissemination and use arrived late in the Round 3 life cycle and will also require substantial support in future rounds.

Budget plans and projections for 2008–2011\(^1\) indicate that UNICEF decision makers recognize this significant understaffing and will remedy the situation. As UNICEF enters into the fourth round of MICS (MICS4), the number of professional staff members is projected to increase to five and a half full-time equivalents and eventually to eight. Consultant services will expand significantly

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\(^1\) Figures in this section are based on plans presented during budget preparation. To date, these levels are unconfirmed.
Interviews with other sections at UNICEF HQ showed a varied picture in regards to coordination with the Strategic Information Section (SIS) and MICS. Whereas the content of the MICS3 was discussed widely, it seems that the structures and decision-making processes were ad hoc. Some sections of UNICEF with relatively well-established methods for measuring key indicators seemed satisfied with those arrangements. They described them as a two-way dialogue that included frequent discussion. In such cases, decisions concerning the addition or exclusion of new indicators or methods seemed to be readily accepted. In contrast, other sections—particularly those responsible for new areas of programming—report a lack of clarity and less satisfaction in how decisions related to MICS were made.

<table>
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<th>Level</th>
<th>MICS roles and responsibilities</th>
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| Headquarters (HQ): Strategic Information Section (SIS) | • Develop and disseminate standardized tools and templates.  
• Support and coordinate MICS implementation through dialogue with regional and country offices.  
• Provide technical assistance either directly or through consultant services to review country-submitted plans and products and to answer ad hoc requests for assistance.  
• Facilitate and participate in regional training workshops.  
• Maintain the MICS area of http://www.childinfo.org.  
• Participate in interagency working groups (IAWGs) to monitor the situation of women and children.  
• Liaise with other divisions and sectors within UNICEF to identify data needs and to track developments in indicators and measurement methods for potential inclusion in the MICS.  
• Provide funds for regional- and country-level MICS implementation, as needed.  
• Analyze MICS data, and prepare global analytical and advocacy materials. |
| HQ: Other divisions and sections | • Participate in IAWGs to monitor the situation of women and children.  
• Liaise with the SIS on data needs, and track developments in indicators and measurement methods.  
• Analyze MICS data, and prepare global analytical and advocacy materials. |
| Regional office | • Coordinate and support MICS activities within countries in the region.  
• Advocate with HQ for the inclusion of issues of importance to the region.  
• Interest and recruit countries within the region to conduct MICS  
• Organize and facilitate regional training workshops.  
• Provide technical assistance either directly or through consultant services to review country-submitted plans and products, and answer ad hoc requests for assistance. |
| Country office | • Dialogue and negotiate with government agencies about the need for, the scope of, and the scale of the MICS.  
• Lead or participate in MICS survey planning, including budgeting, setting a timeline, and selecting the implementing agency.  
• Identify budgetary requirements, and acquire funds through country office resources, HQ “top-up” funding, and other UN and donor agencies.  
• Lead or participate in coordination efforts through a steering committee or other mechanisms.  
• Follow-up or oversee agreements through Memoranda of Understanding or other mechanisms for the conduct of the MICS.  
• Plan and implement dissemination activities.  
• Use MICS data in UNICEF country programming, and facilitate its use in government programming and policies. |
At the RO level, the monitoring and evaluation officer typically assumed responsibilities for the regional coordination of the MICS3. Several respondents report that RO capacity, commitment, and engagement concerning MICS3 vary tremendously. Indeed, interviews with regionally based staff members confirmed the variation in how they saw their roles vis-à-vis the MICS, from serving simply as a liaison or as an organizer between countries and HQ to playing a substantive technical role. The following examples illustrate experience at regional levels:

- In one region, the regional MICS coordinator joined the Regional M&E officer. The MICS Coordinator actively supported countries, identified technical assistance needs, advocated for greater inclusion of regional issues, and facilitated data use within countries.
- In another region, the regional coordinator left the post, leaving HQ to fill in the required technical assistance but with gaps in continuity.
- In another region, an HQ offer to post a MICS regional coordinator was declined. Subsequently, HQ provided much of the support to countries directly.
- In one region, the UNICEF office recognized that the support required by countries in that region would be beyond the regional staff’s capacity to provide it. Therefore, the RO signed a contract for technical coordination and support services with a regional institution whose mandate is to support household surveys. The experience with this model is described elsewhere in this report.

Three of seven ROs had a regional MICS coordinator to further facilitate and support activities. Regional MICS coordinator positions are funded by UNICEF HQ. Reportedly, these coordinators are accountable to the RO and can be diverted to other non-MICS-related tasks at the request of the regional staff. Other funds provided by HQ to the RO are managed by the RO.

At the country level, key operational decisions are made regarding the organizational arrangements for the survey, including (a) the selection of an implementing agency and creation of a steering committee or other coordinating body; (b) the decisions about the overall scale of the MICS, taking account of the sample size and the type of domains to be included; and (c) the decisions about the scope of the survey, including selection of additional and optional modules. The UNICEF CO is the primary liaison with government counterparts and the implementing agency and is at the forefront of negotiations with those partners.

This country-level work is typically carried out by an individual designated as the MICS focal point. There is no formal or informal job description for the MICS focal point in the UNICEF system. Normally, the person responsible for MICS in a CO is the M&E officer, and the role of MICS focal points would fall within the job description of the M&E officer.

In a large CO, where there is an M&E team, the M&E officer may delegate the responsibility for MICS to a team member. In small offices without an M&E officer, the responsibility for the MICS is assigned to another person, for example, the program coordinator. In small UNICEF offices, it is not unusual for one individual to serve as focal point for many different areas of UNICEF’s work. In some cases, the selection of the focal point is not systematic but is more a matter of someone in the office “taking it on.” UNICEF HQ and ROs do not influence the selection of the MICS focal point. In some cases, the UNICEF focal point for the MICS can be a person with little or no experience in household surveys or even in M&E practice.

Figure IV.2 shows the level of prior experience in the conduct of household surveys among respondent groups in the online survey. One in three UNICEF respondents to the online survey had no prior direct involvement with household surveys. Among UNICEF MICS focal points, 37 percent had no prior direct involvement with household surveys. This lack of experience was relatively consistent across different categories of survey activity. Even in activity areas in which generalist staff members may have greater likelihood of exposure, a core set of UNICEF staff members had no prior experience (e.g., planning, 26 percent; report writing, 34 percent; and dissemination and facilitation, 33 percent).

Among UNICEF respondents to the online survey, 30 percent had experience with prior rounds of the MICS; 60 percent only had experience with the MICS3. For UNICEF, the MICS represents an important learning opportunity for its own staff because a significant percentage has no, or limited, household survey experience.

In many cases, the UNICEF country staff heavily relies on the materials and support offered through the regional training workshops, the MICS Manual, and the technical assistance provided (for example, through the early exchange and review of key survey documents with UNICEF staff members at the regional or HQ levels). No other forms of preparation were cited in the interviews with the UNICEF country staff.
The Evaluation Team found that, in some instances, individuals serving as the MICS focal points, who had little or no prior experience in household surveys, were advocating for specific technical approaches (such as sampling strategies) or were drawn into highly technical work (such as weighting samples). According to the staff at the HQ level, COs did not consistently share survey materials for review. In several study countries, substantial problems with fundamental aspects of survey design were identified late, which made resolution difficult—if still possible. Concern was further expressed that MICS focal points could not determine when technical support or guidance was required.

A further difficulty encountered with UNICEF structures to manage and support the MICS is staff turnover. Interviews in several of the study countries (including Georgia, Ghana, and Guyana) cited staff turnover as a factor in MICS management. In one country, five different individuals had responsibility for the MICS3. This degree of turnover hindered continuity and led to gaps in both quality and timeliness.

**UNICEF Operations**

Operationally, UNICEF uses three different tools or interventions to support the MICS. Those tools include (a) regional training workshops; (b) tools and materials developed to support MICS implementation, including the *Multiple Indicator Survey Manual 2005*, the large range of templates available at http://www.childinfo.org, and web-based tools such as the database DevInfo; and (c) technical support and assistance.

Although the MICS program does not have an explicit objective of capacity-building, the steps that UNICEF has taken in facilitating the MICS are implicit capacity-building opportunities. Understanding what was successful and what remains as a challenge to building and sustaining local performance in survey implementation and data use is essential as MICS grows in scope and reach. Along with improved in-country capacity to implement MICS come better-quality data and results that are comparable across countries because of the rigorous data collection and analysis methods outlined by UNICEF and implemented in country.
Further steps will be needed to better use existing capacity and to develop local capacity in data production. To outline those next steps, this section focuses on the effectiveness of UNICEF’s approaches in increasing capacity to implement the MICS3 at the local level and on the areas that need improvement. The three operational methods mentioned previously (training workshops, text-based tools, and technical assistance) will be examined in sequence. The section concludes with specific recommendations for how UNICEF can further facilitate capacity-building by strengthening and broadening existing systems.

**Regional Training Workshops**

The regional workshops stand out as the major vehicle for knowledge-sharing and, thus, capacity-building. The workshops were evaluated through the online survey and interviews in countries with participants. Those workshops received very high ratings when participants were asked about workshop usefulness in preparing them to implement the MICS3. Through the online survey, participants in each of the regional training workshops were asked to indicate their agreement with a series of questions about whether that workshop provided them with the information or basic skills to carry out specific functions (see figure IV.3). Items included in the questions were drawn directly from the stated objectives of each workshop. In every case, more than 80 percent of participants agreed that the workshop had prepared them for the survey. Findings per workshop appear in Annex 4. Similarly high proportions of participants reported that they would recommend the workshop to others involved in household surveys (see table IV.2). Nearly all respondents to the survey reported that they felt that the workshops had prepared either themselves or their staff (for nonparticipants) to conduct the MICS3. Moreover, several respondents felt that participation in the workshops had a broader effect on survey work in country. A UNICEF RO respondent cited the data-processing workshops as a mechanism for capacity-building that differentiates the MICS from other household surveys. The point was echoed by an interviewee in Thailand, who felt that the skills and procedures covered in the workshops improved the work of the National Statistical Office for the MICS, as well as for other efforts.

Several common suggestions emerged for workshop improvement. In both open-ended responses in the online
survey and face-to-face interviews, country participants expressed a common lament that the workshops were too short to fully grasp all of the material presented and suggested that longer training sessions were needed. Some respondents commented on the appropriateness of those included in the training and advocated for more inclusion of individuals directly involved in the MICS. Although the finding is not quantifiable, several respondents did comment on the fact that often those who are invited to participate in the training are not those who are responsible for carrying out the MICS in their countries. Respondents felt that for continuity the MICS focal points should be in attendance at all workshops.

Among other suggestions were the following:

- Many respondents found the specific examples of challenges faced in the field during the second round of MICS (MICS2) helpful and asked for more information from “lessons learned” in previous examples of MICS.
- Respondents asked for more focus on data-quality requirements and the recommended policies and requirements to achieve those requirements.
- Several respondents requested that workshops be held locally. Time, resources (human and financial), and visas were limiting factors for some who might have attended the workshops.
- Workshop timing was a concern of many participants, who asked to have the workshop in better proximity to the actual stages of survey implementation. One interviewee in Kazakhstan said, “[The workshop] on report writing should have happened after we had already started actually writing the report and [were] working with the results obtained. When we started writing the report, we had a lot of questions [that] we did not think about when we were at the workshop.”
- Requests were made for more attention to conducting further analysis, to use of MICS data to support program planning, and to more accurate reporting of age data.

Timely translation of workshop materials was reported as a problem in the West and Central Africa region. Original documents and presentations for all workshops were available only in English although most countries in the region are Francophone or used French as their working language for the MICS.\(^2\) Reportedly, documents were translated late, mostly during the workshops. As a consequence, the guidelines and manual were of limited use for Francophone workshop participants.

According to both scaled and open-ended responses, the Data Archiving and Dissemination workshop should be revised and extended. Among the objectives of that workshop, one in five participants disagreed that the workshop prepared them to use the DevInfo MICS3 Data Exchange (19 percent) while one in ten participants disagreed that the workshop prepared them to archive the MICS3 using the International Household Survey Network (IHSN) toolkit (11 percent). Several participants noted that those issues warrant more time for training.

Following is a sample of respondents’ recommendations for improving the workshop on Data Archiving and Dissemination:

- More time or a special session is needed for data archiving using the toolkit software.
- More time should be spent on practical work in archiving and dissemination, particularly in developing the MICS database in DevInfo.
- Data dissemination is vital for follow-up actions. Therefore, it would be useful to be exposed to more dissemination plans and techniques.
- DevInfo and IHSN are complex, and participants need more training courses.

**Written Materials: MICS Manual, Templates, and Model Documents**

In general, respondents to the online survey and in-country interviews relied on the MICS3 Manual and rated it quite highly. Among online survey respondents, 71 percent (152 out of 215) had used the MICS3 Manual, whereas 18.1 percent (39) did not use it, and 11.2 percent (24) were altogether unfamiliar with the manual. For all major sec-

\(^2\) Burkina Faso, Central Africa Republic (CAR), Côte d’Ivoire, Cameroon, Togo, and Mauritania, Guinea-Bissau and São Tomé.
Underlying Factors

In-country interviews supported the positive ratings of the MICS Manual, and respondents turned to it quite often. A person from Ghana commented, “It was written in such simple language that once you could read it, you could follow it.” Specific appendixes of the manual were also found to be very useful in the conduct of the MICS3 (see figure IV.5).

The lack of translated materials was cited in at least one region as a hindrance. In this case, country participants were ready to start but lacked a translated version of the manual. An interviewee in Kazakhstan remarked, “We received the manual on data entry, but it was when we were almost through with the data entry.” Others from Kazakhstan confirmed this complaint, saying, for example, “I did not use this manual, because the Russian version came after we had already completed all the data collection” (in-country interview).

In general, interview respondents felt they received sufficient guidance from the MICS3 Manual and the trainings to decide on and to make adaptations to the questionnaire modules. They reported using the manual for the definition of different indicators and for preparing and conducting fieldwork. The manual was sometimes used to clarify topics that respondents felt were not clear following the workshop.

When asked about specific changes they would make or suggest most respondents said, “None.” The few changes suggested included the following:

• The quality control section could be clearer.
• The guidance on calculating standard errors in the manual could be clearer.
• Modifications could include “Provision of more instructions on marking methods for proper responses that, in turn, would ease the data entry process.”
• The process for calculating the age of gaining admission in primary school should receive more emphasis.
• The manual should cover what to do if people refuse to participate, which was a problem in the respondent’s county.
• The budget, good governance, and mobilization of resources sections should be clearer.
• The section outlining dissemination could have been covered in more depth.

Ultimately, the manual is a useful tool that is best used in conjunction with other resources, and its utility will be determined by how well its contents are understood. As a UNICEF staff member from Georgia pointed out, “For nontechnical persons, some sections could be unclear, such as those sections focused on sampling issues. Each section is designated for a specific field. So there is a degree of clarity and lack of clarity, depending on the person’s skills in the particular field.”

Ways to increase the efficacy of the manual are to ensure that there is an experienced technical staff member on every team and that the manual is reviewed in detail at one of the workshops during which technical experts can be consulted.

Website

A second set of resources developed by UNICEF to support MICS implementation includes http://www.childinfo.org. An entire portion of http://www.childinfo.org is dedicated to conducting the MICS3. The site also hosts the data gathered through this survey. A wealth of information is available for those who implement the MICS, and figure IV.6 displays online survey respondents’ ratings of the site, which were generally high. Among online survey respondents, 67 percent used http://www.childinfo.org in the course of implementing the MICS, and the majority found it either good or very good for those purposes.

The website of childinfo.org includes material to assist with data processing (see figure IV.6). Of the online survey respondents who reported using the data-processing materials on the childinfo.org website, 89 percent (87) rated the materials as good or very good. The corresponding figures for tabulation plan materials and data analysis materials are 92 percent (90) and 91 percent (97), respectively.

Generally, respondents found the software provided by UNICEF to be both adequate and effective. Countries where interviews were conducted used the standard software package of CSPro, SPSS, and Excel. CSPro was praised in Bangladesh for its powerful data-processing ability. An exception is Georgia, where supervisory staff members found CSPro to be “inflexible” and “inconvenient” for programmers because of its inability to merge datasets, and they questioned its security provisions. Those staff members, nevertheless, found CSPro to be a good platform for data entry. In Guyana, only one copy
Figure IV.4. Ratings of Sections of the MICS3 Manual, According to Responses to the Online Survey

- Designing the questionnaires
- Designing and selecting the sample
- Preparing for data collection
- Conducting the fieldwork
- Processing the data
- Analyzing
- Report writing
- Archiving
- Disseminating

Percent

Figure IV.5. Ratings of Appendix Portions of the MICS3 Manual, According to Responses to the Online Survey

- Appendix 1: Indicators for Global Reporting
- Appendix 2: Using the 3 Model Questionnaires Designed for MICS3
- Appendix 3: Instructions for Interviewers
- Appendix 4: Instructions for Supervisors and Editors
- Appendix 5: Anthropometric Techniques
- Appendix 6: Data Editing Guidelines
- Appendix 7: Tabulation Guidelines

Percent
of SPSS was available. Thus data were exported to Excel to be shared, which proved problematic.

Respondents also used http://childinfo.org for tabulation, which required some adapting of the tools to reflect the in-country situation. Three in-depth study countries (Côte d’Ivoire, Georgia, and Ghana) reported modifying the standard tabulation programs to suit in-country needs. Because of staff turnover, UNICEF completed the tabulation in Guyana.

Technical Assistance

The importance of the technical assistance provided to support MICS3 implementation cannot be overstated. Among respondents to the online survey, 86 percent received technical assistance from a UNICEF office at the country, regional, or HQ level. Overall, the quality was perceived as very good. Among those who received assistance, 82 percent said that the assistance was timely. As seen in figure IV.7, two-thirds of respondents felt that assistance from the COs and UNICEF HQ was very good while slightly less than half felt the same about assistance from the RO. UNICEF provided technical assistance across the range of MICS activities from initial planning through data dissemination and use.

Among the in-depth study countries, technical assistance needs and use varied enormously, from almost no assistance to late-stage rescue efforts. Technical assistance from HQ received consistent praise from respondents, who spoke very highly of the global MICS coordinator and staff. Even in cases in which respondents felt that responses from HQ could have been quicker, they recognized that the very limited number of the staff at HQ was doing yeomen’s work in supporting all MICS3 countries. Countries were often able to resolve issues by phone or e-mail and noted that replies from UNICEF–New York were prompt, even when the staff was traveling.

Sampling, data processing, and guidance on tabulation were repeated themes for assistance sought from UNICEF. Several countries cited tabulation activities as the area where they required the most support. In the online survey 91 percent (116) of respondents who received technical assistance related to data processing rated this assistance as good or very good. Sixty-three percent (117) of respondents disagreed or strongly disagreed that future MICS surveys could be conducted without technical assistance (see figure IV.8).

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3. UNICEF HQ provided each MICS country with a single-user license for SPSS. Later, nearly all countries received an upgrade.
Figure IV.7. Perceived Quality of Technical Assistance Provided by UNICEF Offices

Figure IV.8. Ratings of Technical Assistance Provided by UNICEF, According to Responses to the Online Survey
Underlying Factors

Technical assistance did not always come directly from UNICEF. In fact, 47 percent of respondents received technical assistance from individual consultants. Although proportionally fewer respondents received technical assistance from an external consultant, they reported that the timeliness and quality of the support was on par with that received from UNICEF. Moreover, 87 percent of respondents agreed or strongly agreed that technical support from external consultants was timely (“allowed the MICS3 survey to progress with minimal delay and disruption”) compared to 82 percent of those who received support from UNICEF. Similar proportions of respondents (41 percent) reported that the quality of assistance received, across categories, was either good or very good. Thus, from the “customer” point of view, external consultants delivered as well as the UNICEF staff did in terms of quality and timeliness of technical assistance.

The perceived quality of the technical assistance provided by UNICEF was extremely high overall. However, several areas may require improvement. On average, one in six recipients of technical assistance for data use, dissemination, or fieldwork felt that the assistance was either of poor or fair quality (table IV.3).

One key conclusion of this report is the importance of technical support at all levels (from UNICEF HQ, ROs, and field offices, as well as from individual consultants). A potential model for coordinating such assistance in the future is to use regional institutions. One such mechanism was put in place for MICS3 and is examined here. Technical assistance to countries in the Middle East and North Africa (MENA) region was provided by the Pan Arab Project for Family Health (PAPFAM), which served as an intermediate technical agency between UNICEF and the countries. A key question is whether subcontracting responsibility for providing technical assistance and supporting PAPFAM met the quality and comparability standards of MICS in other regions of the world. A second key question is how that experience can be used to inform future agreements with regional institutions.

The UNICEF RO for MENA, recognizing that requests for MICS3 technical support could outstrip the office’s resources, sought to contract a regional institution that had the mandate to support household surveys within countries in the region. From the RO point of view, the selection of a regional institution with established relationships within the region and with a clear mandate to provide that type of support was a logical choice. The opinion within UNICEF differs about the utility and effectiveness of the relationship with PAPFAM. In sum, there is some degree of disappointment specifically with the accepted practices of review and with the sharing of both data sets and reports between UNICEF and countries implementing MICS3.

The senior staff at PAPFAM provided several reasons that explain the perceived lack of performance related to their work. The first concerns the difficult conditions in which many of the studies are conducted. Palestinian refugee camps and the crises in Iraq and Sudan were the foremost examples. Clearly, PAPFAM may enjoy easier access to such populations, although UNICEF’s reputa-

<table>
<thead>
<tr>
<th>Assistance received</th>
<th>Percentage of respondents who received this assistance</th>
<th>Percentage of respondents who rated that assistance as either poor or fair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report writing</td>
<td>90%</td>
<td>9%</td>
</tr>
<tr>
<td>Selection of questionnaire modules</td>
<td>89%</td>
<td>9%</td>
</tr>
<tr>
<td>Analysis</td>
<td>89%</td>
<td>9%</td>
</tr>
<tr>
<td>Adaptation of standard questionnaire</td>
<td>88%</td>
<td>9%</td>
</tr>
<tr>
<td>Data processing</td>
<td>88%</td>
<td>8%</td>
</tr>
<tr>
<td>Survey planning</td>
<td>85%</td>
<td>9%</td>
</tr>
<tr>
<td>Training</td>
<td>83%</td>
<td>8%</td>
</tr>
<tr>
<td>Sampling</td>
<td>79%</td>
<td>13%</td>
</tr>
<tr>
<td>Data use</td>
<td>83%</td>
<td>14%</td>
</tr>
<tr>
<td>Dissemination</td>
<td>82%</td>
<td>16%</td>
</tr>
<tr>
<td>Fieldwork</td>
<td>75%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Table IV.3. Technical Assistance Received by MICS Phase and the Percentage of Respondents who Rated That Assistance as Either Poor or Fair
tion in the Middle East is undoubtedly at least equally high. The senior PAPFAM staff was eager to point out that 55 analyses were authored and that students from the region had been able to use the data for approximately 70 master’s and doctoral theses. In addition, the PAPFAM staff noted that tensions in the region may limit the acceptance of scrutiny by outside (Western) consultants.

Second, the number of MICS, as well as MICS-related and other surveys, being supervised by the relatively small number of PAPFAM core staff was very large. Local preferences and decisions often seem to have taken priority over the UNICEF requirements. The case of Djibouti is instructive because the decision not to relist the households in the chosen clusters was made on the ground without reference to UNICEF. Other similar departures from recommended practice seem to adversely affect the quality of the data.

Another issue that emerged was the PAPFAM and country decision to rely on vital registration data for mortality measurement rather than indirect methods. This decision requires careful review if the child mortality figures from the Arab countries are to be used in comparison with direct and indirect estimates from the MICS elsewhere. The decision also limits the possibilities for comparison, as well as the potential for subsequent secondary analyses using the household and maternal variables as predictors of childhood death.

The harmonization of questions from PAPFAM, UNICEF, and the Demographic and Health Surveys (DHS) was under way, but some issues had yet to be resolved. The technical committee within PAFFAM appeared to function as a panel of external consultants—many were experienced members of NSOs or ministries of health— who made decisions on survey design and content independent of the UNICEF standards. The case for continuing this intermediary role for PAPFAM in the MICS was based on (a) the importance of fluency in Arabic, (b) the access to countries, (c) the greater responsibility placed on countries, and (d) the key role of the regional workshops. Clearly, there is tension between the concerns of the international community to generate internationally comparable data and the more nationalistic interests of the region and its member countries. As one potential benchmark, the MENA region has the lowest MICS3 completion rate, defined as the total number of final reports available on http://www.childinfo.org relative to the number of surveys conducted in the region. Only one in four surveys conducted in the MENA region appears on the site at the time of this evaluation.

This experience suggests that the price of devolving the responsibility for technical assistance to the region is the loss of control over standards and over some key aspects of the surveys. In dealing with regional institutions as providers of technical assistance, the Evaluation Team feels it is reasonable to insist on general adherence to key components of the survey (e.g., the format of questions that refer to specific international Millennium Development Goals [MDGs] and goals for children, the general rules on sample design and for the need to relist if the frame is more than 2 years old, and a more open access to the data for checking and verification). The Evaluation Team recommends that UNICEF continue to seek appropriately resourced and positioned regional institutions for the technical support function. However, those arrangements should be managed as contractual agreements in which the regional institution adheres to well-defined standards and recommended practice and then operates as an extension of the support that would otherwise be provided through UNICEF or external consultants.

Discussion

UNICEF is best able to influence the performance of the MICS through its own management structures and operations. The decentralized nature of UNICEF is a valued element of its culture and is fully embodied in the ways it does business. However, these structures are suboptimal for the support and management of a household survey initiative such as the MICS. The Evaluation Team found a clear “disconnect” between the location of highly skilled household survey expertise (at UNICEF HQ) and the responsibility for negotiation and decision making on key technical aspects of the survey. The ramifications of this disconnect have been described in the preceding sections.

The disconnection analogy can also be applied to the MICS3 in terms of its relative value and locale of decision making. As described elsewhere in this report, the MICS3 has generated valuable data about children and women for use at both the country and the global levels. However, the evidence suggests that, on balance, the relative value is greater for global-level monitoring and advocacy.

Experience from the business sector4 points to the need to align the relative value of products and services with the

location of management and decision making. As depicted in figure IV.9, products and services with a greater degree of local value should be managed in a decentralized (localized) manner whereas those with a greater global value are best managed centrally. This simple depiction suggests that the manner in which the MICS are currently managed may be slightly out of line with the value derived. Although the Evaluation Team is certainly not advocating for a highly centralized model, there are certain key junctures and decisions in which more guidance from UNICEF HQ is required. Accordingly, the Evaluation Team recommends that the advisory role of UNICEF HQ be altered to include approval. This approval authority should be limited to a small number of key decisions and may be performed by HQ staff members, designated consultants, or review panels.

Taken together, UNICEF has developed a set of operations that appear to be highly valued in the conduct of the MICS. Although building capacity is not a specifically stated objective of the MICS, respondents to the online survey believe that the MICS has indeed built capacity (see table IV.4). Nearly all respondents who work in implementing agencies felt that the survey helped to build local capacity (97 percent). Slightly fewer staff members at UNICEF and government agencies (ministries and departments involved in MICS coordination but not in direct implementation such as dealing with health, education, planning, and women) held a similar opinion (86 percent and 88 percent, respectively).

It seems fair and appropriate to say that the MICS3 experience has indeed made a contribution to strong local capacities. However, this capacity is not yet sufficient for countries to implement MICS without technical assistance from UNICEF. An evaluation of the first round of the MICS found that four out of every five countries believed that they would not require external assistance to conduct another MICS. The comparable percentage for MICS3 is much lower. The evaluation of MICS3 found that only 34.2 percent of online survey respondents (75 out of 219) agreed with the statement “MICS can be conducted in this country in the future without external technical assistance.” Although the MICS has certainly evolved in terms of its technical requirements, this result shows the continued need for capacity-building and an important role for UNICEF. Table IV.4 shows the responses to this statement according to respondent type.
Responses from some countries indicated that the workshops had achieved the intended goal of enabling countries to successfully implement the MICS. Several respondents from Ghana believed it would be possible to do a MICS without technical assistance from UNICEF. In fact, one interviewee stated, “Yes. They have built a lot of local technical capacities in terms of the workshops that were held, and the beneficiaries have been the Ghana Statistical Services. They have the mandate to do population based studies so I think technically without UNICEF Ghana Statistical Service should be able to do the MICS.”

No country believed that conducting the survey would be possible without financial support from UNICEF. The financial issue is an important one. In many countries, even though individuals’ skills were developed, those people did not remain in the country or at least were not available to the statistics bureau because salaries were not high enough.

Although the Evaluation Team concludes that the MICS program has made strides to bolster local capacity to execute large national household surveys, additional steps toward sustained capacity are required on the part of the MICS program managers. Maintaining local capacity and drive to adhere to standards over time, while gradually reducing the extensive external support for the surveys (i.e., sustained performance in the MICS), calls for three important strategic actions.

First, the capacity-building strategy should be explicitly stated and negotiated with country counterparts when agreements are made for conducting the MICS. The strategy should be defined by clearly measurable performance standards for data quality and data use that will serve to focus capacity-building efforts. Those performance standards could be defined universally for every country or could be defined collaboratively between UNICEF and its partners according to the stage of development of the survey program or organization in each country.

Second, the MICS capacity-building strategy must be broadened to include both the individuals responsible for the survey management and the organizations in which those individuals work. Regional training, technical assistance, and the MICS Manual have proven to be sound capacity-building interventions by which individual researchers and data analysts augment their skills and experience in survey techniques. Sustained local performance in the MICS requires a local organization that can lead the intervention according to the chosen cycle and can house and support those talented individuals with additional staff development, career advancement, and sound organizational systems. NSOs must define permanent devoted staff members to MICS management and must secure budgetary resources to maintain those positions over time from MICS to MICS. It is those kinds of investments in local institutions that will sustain local capacity for MICS management.

Finally, UNICEF should consider forming long-term capacity-building partnerships with a select group of NSOs. These partnerships would focus on “graduating” the country or institution from the technical support required for MICS and would ensure that resources from both partners are committed over the long term to enhancing the technical and organizational capacity of the local institutions. The commitment to reaching and exceeding agreed performance standards for survey management (as noted previously) becomes part of the capacity-building strategy tailored to each institutional partner. A peer-support network of those NSOs would enhance learning and organizational capacity-building.

### Table IV.4. MICS Capacity-Building and Future Needs for Technical Assistance, According to the Online Survey

<table>
<thead>
<tr>
<th>Statement</th>
<th>Government agencies</th>
<th>Implementing agency</th>
<th>Other stakeholders</th>
<th>UNICEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICS3 has contributed to capacity-building for data collection and use in country.</td>
<td>Agree: 88%</td>
<td>97%</td>
<td>77%</td>
<td>86%</td>
</tr>
<tr>
<td></td>
<td>Disagree: 8%</td>
<td>2%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Don’t Know: 4%</td>
<td>2%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>MICS can be conducted in this country in the future without external technical assistance.</td>
<td>Agree: 60%</td>
<td>36%</td>
<td>31%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>Disagree: 30%</td>
<td>63%</td>
<td>63%</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Don’t Know: 10%</td>
<td>1%</td>
<td>6%</td>
<td>1%</td>
</tr>
</tbody>
</table>
while building regional linkages for supporting research and survey management, data use, and technical capacity-building.

Research institutes with the capacity to conduct and analyze household surveys exist in most regions where MICS are conducted. As the MICS grow, it is suggested that UNICEF partner with those organizations and rigorously train them in MICS methods so that they can then conduct training on a smaller scale for neighboring countries. This partnering would allow the development of technical expertise to become more localized rather than being based at UNICEF HQ. Having regionally based institutes with technical expertise could facilitate follow-up training for specific problem areas, which would allow UNICEF to focus on strategic management and efforts to increase attention and resources targeted for women and children.

On the basis of experience in the MENA region, two possible avenues might be pursued with regard to the use of regional institutions. In dealing with proven, well-established organizations, UNICEF should use contractual agreements that specify the level, quality, and timeliness of the support to be provided. Such agreements may even take the form of performance-based contracts. For emerging and more inexperienced organizations, UNICEF might want to take more of a capacity-development approach that starts with assessments of the organization's strengths and weaknesses. UNICEF might seek to develop hands-on partnerships with those organizations by providing closer guidance and oversight to their work than would be needed with the organizations described previously. In either case, it is essential for UNICEF to remain engaged and well informed about progress in the region.

Local knowledge and capacity can be a major asset in ensuring data quality. Unfortunately, confidence in the ability to conduct the MICS successfully without technical support does not necessarily mean that the MICS will be implemented well, and some countries may need support throughout the MICS process. As demonstrated in the data-quality section, Bangladesh was one of the countries with data quality problems, yet respondents from Bangladesh all agreed that the Bangladesh Bureau of Standards (BBS) or Mitra and Associates, the local research organization sub-contracted to conduct the survey field work, could implement MICS without technical assistance. This example highlights the important role that UNICEF must play in ensuring consistently high-quality data through its own expertise but also by continuing to improve local capacities to facilitate this data collection. This role is well-summarized by an interviewee in Kazakhstan, “UNICEF still needs to coordinate activities in order to ensure that countries follow the similar methodology and [that] results are comparable across the world.”

**Organizational Culture**

**Key Findings**

- The MICS is not mentioned in basic UNICEF program documentation with the prominence one would expect given the major role the survey has come to play in monitoring the situation of children worldwide. UNICEF’s Medium-Term Strategic Plan also makes no direct reference to the MICS, except for a reference to the more than 75 surveys that are expected over the course of the Medium-Term Strategic Plan. Although there are many references to evidence-based approaches and the use of data for advocacy, UNICEF’s flagship method, the MICS, is not given a prominent position in the text. 5 We conclude that there is both a conceptual and an action “divide” between the desire for evidence-based practices in UNICEF country programs and the frequent use of the MICS for assessing and reporting on progress made toward the global goals. Although this divide does not appear to prevent UNICEF COs from undertaking a MICS, the disconnect is indicative of the tension associated with relying heavily on MICS for meeting a myriad of data needs.

- The current approach to strategic management of the MICS program that depends on shared governance of key decisions has strengths as well as weaknesses.

**Strengths** include the HQ responsibility to determine the core indicators for inclusion in the MICS. This responsibility rests with the chief of the SIS who is supported by the MICS coordinator and area experts within SIS and who works in collaboration with staff members of the Program Division. These decisions are strengthened politically and technically through a process whereby UNICEF and other organizations reach interagency agreements on the choice of indicators (see the previous section). Those decisions are applied in a well-controlled cascade fashion through the work of the MICS survey team and its consultants at HQ. The strategic alliances that UNICEF has forged with other UN agencies, expert groups, and donors for guiding MICS represent a critical asset of MICS strategic management.

Weaknesses in strategic management arise from the ambitions of both UNICEF HQ and UNICEF COs to add new indicators to the core or optional modules and to press for greater levels of disaggregation of data to district level. A range of internal and external stakeholders view the MICS as an opportunity to explore new policy and program issues or to satisfy the special interests of potential donors or government partners. The authority of SIS to resolve conflicts that arise from such pressures is limited.

- MICS governance practices, while not formally structured, achieve the level of corporate quality control necessary for ensuring that the various MICS meet a standard that is sufficient for monitoring the MDGs.

This section examines the extent to which UNICEF managed the MICS3 as a strategic resource for its mission, policies, and programs. David Lewis has defined governance as “the ongoing process within organizations by which guidelines for decision making, mission, and action are developed and compliance with them is monitored.”

Effective management requires both participatory and instrumental methods. Participatory processes that are consultative encourage shared ownership in the outcomes. Instrumental processes, however, permit directives that are timely enough so that decisions are made and a task gets done. To assess UNICEF’s strategic management of the MICS, we examine the following:

- Internal procedures and work processes for the MICS3 at the HQ, RO, and country levels;
- Interagency and donor agreements and working groups that affect the MICS3; and
- Oversight and technical management of the MICS3 itself.

Our sources for examining these processes include:

- Review of internal UNICEF documents, such as executive directives (EXDs) issued by the Office of the Executive Director; the UNICEF Programme Policy and Procedures [PPP] Manual: Programme Operations (2005); the MICS Manual (2005); the UNICEF Medium-Term Strategic Plan for 2006–2009; and the program policy instructions, as well as a review of external documents such as ChildInfo and the publications of various interagency working groups (IAWG)
- Interviews with key stakeholders
- Responses to the online survey sent to all countries that conducted a MICS3
- Interviews and other documentation from the case-study countries.

Interpreting feedback from stakeholders and incorporating their perspectives into decision making and work processes have improved strategic management in ways that out-perform many quantitative evaluation tools.8

Overarching Governance Structure for the Conduct of the MICS

The SIS at UNICEF HQ developed and managed the MICS (Rounds 1, 2 and 3). The principles that guide UNICEF and the MICS are contained in UNICEF’s Mission Statement, the Convention on the Rights of the Child, the World Fit for Children (WFFC) Declaration, and the Millennium Summit Declaration. UNICEF’s Medium-Term Strategic Plan for 2006–2009 contains elements that the MICS addresses in all its five focus areas.

The fifth focus area, “Policy Advocacy and Partnerships for Child Rights,” aims at putting children at the center of policy agendas by generating high-quality, gender-disaggregated data and analysis.9 It draws on the MICS contribution to the four other focus areas and suggests the way all the MICS results can be used to benefit children. Nevertheless, the Medium-Term Strategic Plan makes no direct reference to the MICS, except in Table 1, page 98, where it refers to UNICEF-led data collection and review and notes that UNICEF expects to carry out more than 75 MICS over the course of the Medium-Term Strategic Plan.10

Admittedly, the Medium-Term Strategic Plan for 2006–2009 sets out only a framework within which the complex sections of UNICEF are expected to perform dur-

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Overall Decision Making

Ultimately, UNICEF’s Executive Director is responsible for decisions about the strategic deployment of the MICS. Those decisions include how frequently to conduct a round of MICS and the overall share of resources to be devoted to the MICS, according to recommendations from the senior staff. The recommendations, in turn, derive from positions approved by UNICEF’s Executive Board and in documents such as the Medium-Term Strategic Plan or the Biennium Budget.

The Director of SIS has the authority to determine the indicators that will be included in the MICS. Our review of the process that produced the MICS3 instruments found that these decisions are relatively easy for the indicators that were included in previous rounds of MICS (see the section on core and optional modules, which follows) and on which agreements have been reached within IAWGs for monitoring at the global level. Indicator selection is challenging for those MICS indicators with which there is little or no previous survey experience and with which UNICEF is forging new ground. The MICS Manual outlines the criteria for inclusion of indicators in the MICS3. These criteria include the international agreement on indicators, the previous testing of indicators, and the feasibility of collecting the data to calculate indicators through household surveys.

To understand how these decisions were made in practice, we reviewed the working document on agreements on indicators for global reporting: the working draft for the MICS3 evaluation. We also interviewed UNICEF staff as well as members of Inter-Agency Working Groups responsible for determining the relevance of different indicators. Of the 101 indicators used in the MICS3, the majority had either an interagency agreement or had been tested in a previous round of MICS. Some indicators, however, were being tested for the first time (for example, those on the psychosocial development of the child), and their selection and introduction was challenging in the context of the governance of the MICS. This example is described in more detail in a later paragraph.

IAWGs that focus on measurement of child health and nutrition are well established and are fully engaged in the direction of major household survey programs. For other, newer technical areas in the survey, such as child protection, interagency agreements on indicators have not been reached, and it has been more difficult to agree on and measure related variables. Annex 2d, table A2d-3 shows those indicators included in the MICS3 for which agency agreements were reached and those for which agreements were still outstanding at the time of the MICS survey.

Through interviews and document review, the Evaluation Team concludes that measurement of child protection is in an early stage of development. Although the UNICEF staff worked closely with academics and researchers to

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12. Interview with former director of the SIS Trevor Croft, who was responsible during the period of the MICS3.
advance measurement techniques around child protection, these efforts had not progressed to the stage at which results or recommendations were shared with a UN IAWG or an M&E Working Group (MERG) before finalization of the MICS3 questionnaire.

For example, UNICEF convened a meeting on Indicators for Family Psychosocial Care in November 2003.\textsuperscript{15} It was chaired by a senior UNICEF HQ program staff member. Contributing to the work and attending the meeting were academics and technical experts from the following:

- Cornell University
- Emory University
- the University of Michigan
- the University of Maryland
- the University of North Carolina
- John Snow, Inc.
- the Academy for Education Development
- the International Food Policy Research Institute
- the Center for International Child Health at the University of London

Participants reviewed case studies from Bangladesh, Brazil, Burkina Faso, Malawi, Jamaica, Mexico, Nepal, Pemba, South Africa, Uganda, Azerbaijan, Turkmenistan, and Pemba (Tanzania). The report of this consultation suggests a lack of understanding of what could be assessed related to psychosocial development of children in a household survey like the MICS. Although there were potentially many interesting research questions related to early cognitive and emotional development of children, these questions were just beginning to evolve and their link to the MDGs was tenuous. There were seven indicators on early childhood learning and discipline that emerged from this consultation and that were used in the MICS3. The Evaluation Team believes that these measures were candidates for further research and testing before being included in MICS3 or any international household survey effort.

MICS3 grew beyond MICS2 in order to respond to internal and external advocacy for the inclusion of additional indicators such as those on childhood learning and discipline.\textsuperscript{16} The momentum from the WFFC also contributed to this growth. Respondents to interviews and the online survey, particularly from COs and national governments, reported their appreciation of the additional indicators, such as those on child development.

The process through which indicators are considered and included in the MICS has implications. The Evaluation Team, is concerned that the size of the MICS3, the length of the questionnaire in particular may jeopardize the quality of the results. Unfortunately, the Evaluation Team was unable to determine and analyze the exact amount of time required to complete the interview in differing settings because interviewers were not asked to record the start and finish time for each interview. Senior survey managers consider one hour the maximum recommended length of an interview, with an even shorter period (40 minutes) for respondents in urban settings.

**Decision-Making Regarding Core and Optional Modules**

The SIS made a strategically important and appropriate decision to streamline and systematize the MICS3 by offering a core module for all surveys and offering a set of optional modules that responded to country needs. This decision corresponds with UNICEF’s basic country programming approach in which national needs and priorities set the agenda. It also responds to a perception voiced by many respondents and a point made in various documents published on the MICS: “One size cannot fit all.”\textsuperscript{17}

The core module allows UNICEF to fulfill its responsibility for assisting countries to report on the MDGs and human rights that are deemed most important for children and women. The three core modules (a household module, a module for children under age 5, and modules for women) include additional modules where needed, such as one for measuring female genital mutilation or cutting.

The optional modules expand on the core indicators and, in general, are not critical to the MDGs, except in the case of maternal mortality. However, this indicator, while included as an indicator for global MDGs monitoring, is extremely difficult to measure. Nevertheless, UNICEF’s inclusion of the maternal mortality module has helped countries address a real deficit of evidence on maternal

\textsuperscript{15} The MICS3 Evaluation Team received a copy of this meeting’s PowerPoint Presentation and the meeting report, with a summary of the discussion of each question and the small case studies presented.

\textsuperscript{16} Interviews with UNICEF HQ staff members in the technical clusters and with external consultants.

\textsuperscript{17} Minujin A., Delamonica E. and Komarecki M. eds. (2006), Human Rights and Social Policies for Children and Women: The Multiple Indicator cluster Survey (MICS) in Practice, New York, The New School University with support from UNICEF.
mortality. Among the countries that used the module, 15 of 19 had no nationally representative data at the time of the MICS3 (see Annex 4, table 4-1).

Management of the MICS

On the basis of document review and interviews, the Evaluation Team concludes that UNICEF guides the MICS in a strategic fashion but there are ways in which strategic management could be improved. Recommendations related to MICS management aim to preserve the current strengths while eliminating its weaknesses.

Governance strengths include the following:

- UNICEF has a sound reputation for measuring progress on many of the goals that have been set at UN summits. The MICS has proven to be an effective household survey tool that measures the status of many of these key indicators.
- Other international agencies, as well as governments, turn to UNICEF for measuring and reporting on country-level progress toward reaching the MDGs and other goals through the use of these key indicators.
- UNICEF has forged strategic alliances with other UN agencies, expert groups, and donors around the use of household surveys to monitor national level performance in the social sector. UNICEF staff members have earned the confidence of their peers as knowledgeable participants in these alliances. Those strategic alliances are too extensive and complex to summarize in full. We give one example, the Joint Monitoring Program (JMP) Task Force for Water and Sanitation, and refer to others that include alliances that involve the UN Statistical Office, the World Health Organization (WHO), the UN Educational, Scientific and Cultural Organization (UNESCO), the World Bank, the UN Population Fund (UNFPA), UNAIDS, the DHS, the experts from academic institutions, and the representatives of leading nongovernmental organizations (NGOs).
- SIS actively participates in the following monitoring and interagency groups: the Interagency Child Mortality Estimation Group, the Malaria MERG, the JMP and its Technical Advisory Group (TAG), the UNAIDS HIV/AIDS MERG, the Interagency Maternal Mortality Estimation Group, the Interagency Group for Immunization Estimates, the Child Health Epidemiology Reference Group, and the Countdown to 2015—Technical Working Group.
- Thorough and technically sound reviews of data from both the MICS and the CRINGe18 (Country Office Report on Indicators and Goals) reports are submitted annually to the SIS at New York HQ. During this process all COs review a set of key indicators on the condition of children and women and compare them to recent country findings from all potential data sources including surveys, censuses, and vital registration systems. This is a participatory process between UNICEF HQ and the field in which UNICEF HQ shares the country estimates that it has cleared and approved for publication and then discusses with the COs any new findings, thereby explaining why country results may or may not be used in flagship publications. This process helps CO staff members to understand the criteria used for assessing data quality. It takes place before UNICEF shares data with the UN Statistical Office, thus assisting that office in a substantial way in its review of indicators for reporting on the MDGs.
- UNICEF archives survey data from MICS3 and makes it accessible to colleagues and the public. The data archives of the SIS and the high-quality work that its staff puts into data review by calling on external international experts where needed or asking for reviews from members of various strategic alliances stand out in this evaluation as a best practice. This element of the MICS program is one that UNICEF can and should expand beyond current practice.
- Strategic alliances allow stakeholders and the MICS program to benefit from expert knowledge and country experiences. One such example is the alliance formed with the JMP, the longest-standing interagency monitoring program focused on strengthening data collection for monitoring global goals and serving national programs.

Learning from the JMP Experience

UNICEF helped found the JMP with WHO in the early 1990s. Both agencies continue to lead the JMP and to contribute funds and staff. The JMP has a clear governance structure and has made a signal contribution to defining indicators, including their measurement in the MICS, DHS, and other surveys. It has been actively involved in reviewing results, publishing survey findings in a well-planned series of publications, and building national capacity to interpret

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and use results. The JMP has a governance structure based on transparent management and information-flow relationships that support the monitoring the MDGs related to water and sanitation (see figure IV.10).

The UN Statistics Division that is entrusted with compiling and maintaining data on the MDG targets and millennium indicators benefits from this process. Data flows between the WHO-UNICEF JMP and its partners at the country level. After review, it moves to the UN Statistics Division and the UN MDG task force that is responsible for the MDG7 for water and sanitation. The JMP has had many years of experience in forging and managing a range of partnerships. In addition to the original members and the involvement of national governments, the JMP has encouraged the membership of leading academic institutions, experts, and NGOs in the field of water and sanitation, and produced a well-reasoned series of publications.

JMP as a Model for Working with Other Interagency Programs

The JMP has a Technical Advisory Group (TAG) that provides strategic and technical advice. It is composed of technical and monitoring specialists and representatives from UNICEF and WHO. The JMP has also benefited from the contributions of the Water Supply and Sanitation Collaborative Council, which is an independent and impartial organization that monitors the sector and supports the work of the JMP. UNICEF has benefited from the JMP’s work on the harmonization of various indicators, research into the use of new indicators, support for national capacity-building, and widespread promotion and use of the MICS results.

Indicators drawn from the MICS are reported by the JMP in its publications on a par with those drawn from the DHS. Results from the MICS have figured prominently in JMP publications and technical papers since before 2000.

With the more-complex partnerships and demands of the MDGs, UNICEF has wisely chosen to continue and

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19. WHO/UNICEF, Joint Monitoring Programme for Water Supply and Sanitation: Policies and Procedures, version 4, April 2004. The MICS Evaluation Team used this version to ensure that the functions described were those present when UNICEF undertook the MICS3.
UNICEF should consider reducing recurrent demands on its HQ staff in SIS and the Program Division by adopting features of the JMP in its working relationships with other interagency groups. UNICEF could also improve expert involvement and country contributions to indicator development by using some of the JMP strategies.

The potential weaknesses in the governance of the MICS relate to the number of MICS stakeholders. The MICS Evaluation Team learned from many respondents that there has been a rapid increase in the range and number of MICS stakeholders as found in other household survey programs. This change has led to increasing demands on the MICS and the UNICEF staff members who manage the program. The success of the MICS has also intensified the attention paid to surveys.

UNICEF must enable its own leadership to exercise the authority to shape strategic partnerships. At HQ, there is a need to prioritize different partnerships in terms of staff time and other resources. The present governance practices do not enable strategic selection among these partnerships.

**MICS Governance and SIS Leadership**

The MICS3 has benefited from its location in a unit that has recognized authority and the capacity to reach across organizational divides to encourage participation. It is empowered to make decisions, forge agreements and enforce timely deadlines. The SIS is at the nexus of strategic management at UNICEF HQ where strategic and medium-term plans are prepared and where data are reviewed, cleared, and analyzed for UNICEF’s publication.

When UNICEF first created the MICS in the early 1990s, the Executive Director challenged the Office of Planning and Coordination to define a strategy to fill data gaps for reporting on country-level progress following the World Summit for Children (WSC). This Office of Planning and Coordination at UNICEF HQ brought three distinct assets to this task and these assets continue to shape the strategic management of the MICS. These assets are the following:

- A direct-reporting relationship to the Office of the Executive Director, including the Deputy Executive Directors;
- The authority to reach across divisional divides in UNICEF and to have direct access to all UNICEF ROs and COs; and
- The function of reviewing all country data to ensure that they will stand up to international scrutiny and will meet UNICEF quality standards for publication. This function involved collaboration with other UN agencies and experts, as well as consultation with external experts.

The SIS continued to draw on those same assets for MICS2 and MICS3 without moving to a more formalized governance structure or adopt formalized management procedures. The authority and flexibility entrusted to this office allowed it to adapt to needs as they arose. Although those assets are advantageous, they also leave the MICS without a clear governance structure that links one survey to the next. The implications of this lack of formalized governance structures will be discussed later.

**UNICEF’s Mandate for Governance of the MICS**

Three features of UNICEF’s mandate shape the governance of the MICS:

- Its mission for children and women, as endorsed by all the member states of the UN;
- Its authority and accountability under the Convention on the Rights of the Child and the agreements of the WSC and the Millennium Development Declaration for monitoring the situation of children; and
- Its country programs and extensive field presence working in support of national governments. (The UN Secretary-General asks heads of state to report on progress at specific intervals. The Committee on the Rights of the Child also makes requests to national governments and UNICEF for periodic reports.)

As one senior staff member in UNICEF put it, “I believe in the UN system because of our presence at the country level and our political connections to government—our raison d’être is to effect positive change for children.”

UNICEF became the first UN agency in the late 1980s to work with member states to set quantitative goals and targets and then to bring together the UN agencies and

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20. Interviews were with four stakeholders, two internal and two external, plus a review of publications by the JMP.

21. Evaluation Team interview with an internal stakeholder.
other experts to agree on the indicators and methods for monitoring progress toward those targets. By 2000, UNICEF had gained a great deal of experience from the WSC across a range of sectors and national contexts. It is thus not surprising that UNICEF has had an important seat at the table in shaping the MDGs and in assisting the UN and national governments in monitoring progress toward those goals.

There are 8 MDGs, against which human development is measured, with some 18 targets and 48 indicators and subindicators for measuring status. UNICEF is responsible for those indicators related to children, which form about half of all the indicators. The MICS3 was designed to measure 21 of these 48 indicators, about 40 percent of the total. The MICS3 also collected far more in the way of relevance to children. In fact it collects more than 100 indicators when optional modules are included. During the MICS3, UNICEF representatives and specialists served on all IAWGs involved in monitoring progress toward the MDGs.

The MICS program has a distinct advantage over other household survey programs because it is part of UNICEF’s country programs. Country programs are at the heart of UNICEF’s operations. UNICEF’s respected role in humanitarian crises enables it to work with partners to implement surveys in situations in which the government itself may not be able to function in all areas of the country. In addition, UNICEF has the ability to conduct the MICS in relatively short rounds of typically 2 years. Initiated in 2004 through an EXD issued by Carol Bellamy MICS3 was set in motion around the world.22 COs and their staff members were expected to seriously consider undertaking the survey.

Despite these unique characteristics in its mandate, MICS is often referred to interchangeably with the DHS. However, a senior UNICEF staff member with extensive MICS experience cautions that “the terms MICS and DHS are being used interchangeably but the DHS is the Cadillac and MICS is the Volkswagen.”23 More important, the MICS is tightly linked with UN governance through UNICEF’s mandate, which has given the MICS exceptional access to all member states and has required at the same time that UNICEF provide technical support to all member states that seek to undertake the MICS.

Over the years, UNICEF’s program policy and procedure (PPP) manuals have emphasized the centrality of the country program.24 The PPP manual contains detailed guidance for all UNICEF country programs. A situation analysis for children and women is at the center of the country program and requires up-to-date indicators on the status of children and women. Each CO conducts a situation analysis with national counterparts at least every 5 years, in preparation for a new country program. However, it has become common practice to update the key indicators annually. The SIS also initiates and coordinates the annual collection, review, and evaluation of updated indicators from all COs. This CRINGe report, a tool instituted in the 1990s, has become an important part of UNICEF’s culture and a resource for UNICEF’s evidence-based policy making and advocacy.

UNICEF agreements and policies approved by the board add to its mandate and thus strengthen the governance of the MICS. These agreements and policies include the following:

- The Millennium Declaration and its Development Goals
- UNICEF’s Medium-Term Strategic Plan
- The UN Common Country Assessment and the UN Development Assistance Framework.

UNICEF’s culture is one that not only gives primacy to assessing the situation of children on the ground but also encourages the UNICEF country team and its national counterparts to assess and undertake actions that will best serve the needs of children and women. The MICS Manual, which was issued by the Division of Policy and Planning in 2006, is an all-inclusive guide for a UNICEF CO (a) to assess whether to undertake the MICS3 and (b) how to undertake the MICS3 from start to final report.

In sum, the Evaluation Team’s review of the main documentation discussed herein found the following:

- References to the MICS in the PPP manual are limited to the following sections:
  - Role in the Situation Analysis (p. 25)
  - Surveys and Studies Supported by UNICEF (p. 173)
  - Monitoring and Evaluation Capacity-Building (p. 173)
  - Identification of Marginalized Groups and Underserved Children (p. 273)

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23. Evaluation Team Interview with an internal stakeholder.
24. This evaluation has used the UNICEF, Programme Policy and Procedure (PPP) Manual in force in 2005, the period of the MICS3.
• The MICS receives limited reference in basic UNICEF programming documentation. This is surprising given the major role this survey has come to play in monitoring the situation of children worldwide.
• EXDs and special guidance to the field from the SIS concerning the MICS and the MDGs indicates the level of importance that HQ expects COs to give to the MICS.
• The MICS Manual is the detailed guide for undertaking a MICS. The majority of the text provides technical guidance with little mention of policy planning and programming or communicating and using survey results.
• Looking back over the instructions for MICS1, MICS2, and MICS3 and the PPP manual, the Evaluation team concludes that there is a conceptual and action “divide” between the use of MICS for UNICEF country programming and the use of the MICS for assessing and reporting on progress toward the MDGs, the WFFC goals, and the WSC goals. Although this divide does not appear to hinder UNICEF COs that decide to undertake a MICS, it is indicative of the tension associated with relying heavily on MICS for meeting a myriad of data needs.

The PPP manual points out the ability of the MICS and other household surveys to go beyond those children who are recognized in registration statistics. This strength is critical to UNICEF’s ability to monitor the situation of marginalized populations, especially children. The MICS has a larger role to play in this regard, and a recent publication highlights this role: Human Rights and Social Policies for Children and Women: The Multiple Indicator Cluster Survey (MICS) in Practice.

UNICEF’s organizational structures reflect a divide between the SIS that guides the MICS and the Program Division. Although technical collaboration takes place between those two units, particularly in terms of defining the indicators to be used in the survey and in analyzing results, it is apparent that understandings are forged when needed but are not institutionalized in UNICEF’s management structure.

The SIS has been in a position to exercise leadership in the MICS program and to benefit from easy access to authority. One internal stakeholder pointed out, however, that there is no real governance of the MICS at HQ. “There is no locus for decision making for when we invest in the MICS, for deciding how much, whether the cost should be shared with others. In fact, there is no corporate steering committee for the MICS or for other strategic decisions that would guide UNICEF and the Executive Office about whether or not to invest in the MICS, and how much to invest.”

**Principles Guiding Size, Periodicity, and Content of the MICS**

We have used the original manual for MICS1 (used again for MICS2) and the MICS3 Manual 2005, as well as responses to our interviews, to assess the principles that guide the size, periodicity, and content of MICS. The first manual contains the fundamental strategy which is repeated in the MICS Manual 2005. Neither manual provides guidance on the periodicity of the surveys. Both, however, contain guidance on (a) assessing data gaps in each country and (b) developing a strategy for filling those gaps, which may include the implementation of a MICS. Both manuals give priority to monitoring global goals, whether they are the WSC goals, WFFC goals, or the MDGs. Both refer to country priorities for children and give considerable leeway for in-country decision making.

It is clear that the MICS1 was “crisis driven” in the mid-1990s. It took place not long before governments were expected to report at mid-decade to the Secretary-General on the progress for children. Most governments had substantial gaps for reporting; even when data were available, they were not recent. The MICS was a stop-gap measure that proved remarkably successful. Nevertheless, UNICEF appears to have been reluctant to “institutionalize” the MICS as a standard tool for assessing progress on key indicators. MICS2 was deployed as another stop-gap measure for reporting in 2000 on the final status of country progress concerning the WSC goals adopted in its National Plans of Action for Children and Women.

The crisis-driven nature of the MICS1, MICS2, and—to an extent—MICS3 is indicated by the content of the directives issued and by the inadequate lead times, planning, and budgeting environments that surrounded the surveys, in particular the first two. Judged against this background, the achievements of MICS1 and MICS2 are exceptional. MICS3 benefited from the MDGs and from a more-stable planning environment for reporting on MDG progress. The MICS3 also made substantial improvements in content and technical cooperation.
improvements to survey design, field preparation, implementation, and documentation. However, it too shows evidence of being conducted in a near-emergency mode. For example, the key posts for managing the MICS were temporary fixed-term appointments or long-term consultancies of the variety more often seen in emergency situations rather than in stable programming environments.

One may draw the conclusion that UNICEF each time expected strengthened national and international capacity to report on progress for children and women at each landmark date (i.e., 1995, 2000, and 2005). When this capacity did not materialize, UNICEF undertook a bootstrapped operation to assist national governments in a cost-effective, focused manner that would ensure adequate reporting on the situation of children and women.

The Use of the MICS in Countries Facing Humanitarian Crises

UNICEF plays an important role in the partnerships that respond to natural and man-made disasters. It emphasizes an early-warning system and the preparedness of COs to respond. In the past, the MICS has played a role in providing a vital baseline for disaster response (e.g., in South Sudan and Somalia) and in generating interagency collaboration for mounting an emergency appeal using baseline data collected with a survey that relied on the design (e.g., Afghanistan). In each case, those actions required informed and courageous leadership by the UNICEF representative, program officer, or UN coordinator (in the case of Afghanistan, a UNICEF staff member on assignment).

In the context of a disaster, the task of conducting the MICS may be challenged by the absence of a recent sampling frame and the difficulty of drawing up a new one. A senior evaluation officer with the International Red Cross (IRC) reported to us that the IRC has used the first MICS manual in emergency operations, in part because its guidance is useful in areas that have weak sampling frames and, in part, because it is easier to understand and appropriate for use during an emergency response. Of the 55 COs that mounted the MICS3, 35 fall in the category of emergency response or recovery in 2005, 2006, or 2007 (see table IV.5). Those 3 years frame the period when the MICS3 was implemented. UNICEF’s Operations Center (OPSCEN) provided tabulations for all categories of humanitarian response, by fundraising appeal category, for 2005–2007. The categories include COs that were part of the UN Consolidated Appeal Process or the Humanitarian Appeal Report Flash Appeals or that were using Emergency Funds from Ordinary Resources. We matched this table with data on the year of data collection for the MICS3 (see table IV.5). The results show that UNICEF offices with humanitarian crises are among the most-important clients of the MICS3. They make up 64 percent of the countries that conducted the MICS3.

UNICEF representatives play a key role in deciding to undertake a MICS. Crisis conditions place extraordinary demands on any office. We note that the perceived value of the MICS must be very high in the minds of UNICEF representatives such that they take on the interagency coordination efforts and the staff deployment complexities required for the survey. Of particular interest is the pattern of timing for the use of the MICS in emergency settings.

We reviewed the point at which each CO undertook data collection for the MICS in terms of its stage of humanitarian response. The typology we used is simple: (a) before the crisis and appeal were announced, (b) during the crisis, and (c) during the post-crisis recovery phase with a transition to development. Most of the MICS3 deployed during humanitarian crises took place during the heat of the crisis itself (19 cases). The other half took place

Table IV.5. Number of MICS3 Survey Countries in a Humanitarian Response Stage in 2005, 2006, or 2007

<table>
<thead>
<tr>
<th>Humanitarian Response Stage</th>
<th>Number of MICS3 Survey Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before or at the beginning of the crisis</td>
<td>8</td>
</tr>
<tr>
<td>During the crisis</td>
<td>19</td>
</tr>
<tr>
<td>Post-crisis transition to recovery and development</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
</tr>
</tbody>
</table>

27. Interview with a senior evaluation officer of the International Red Cross.
before or at the beginning of the crisis (8 cases) or during the post-crisis transition to recovery (8 cases).

The Evaluation Team interviewed UNICEF staff members who used the MICS in humanitarian crises. All stressed its usefulness and their sense that UNICEF would benefit from undertaking a more-strategic deployment of the MICS in countries on the watch-list for humanitarian disasters, especially in subnational areas that are prone to disaster. Preplanning those surveys as part of UNICEF’s country program in those locations could prove, they felt, a distinct asset for consolidated appeals and the mounting of an appropriate response.28

Respondents to our interviews in Côte d’Ivoire stressed the importance of UNICEF credibility and on-the-ground presence for carrying out the MICS3 under such conditions. UNICEF’s humanitarian response strategy since 2001, as we understand it, is to mainstream emergency preparedness within all UNICEF country programs. The OPSCEN in the Office for Emergency Planning supports emergency preparedness for rapid response at the country and regional levels by working with all UN partners and relevant NGOs. Its challenge is to anticipate instability, and it benefits from working in coordination with the UN system under the strengthened role of the UN Humanitarian Coordinator in the UN Department of Humanitarian Affairs.

The UN Office for the Coordination of Humanitarian Affairs (OCHA) Mid-Year Review of 2008 for the Côte d’Ivoire Consolidated Appeal demonstrates the importance of the 2006 MICS3 to the response. The review draws heavily on MICS3 results in education, using these results to underline how precarious the education situation had become in rural areas, especially for girls.29 The review also uses the nutrition indicators from the MICS3 to show a worsening of the nutritional status of vulnerable populations during the crisis.30 More important, it takes the prevalence of acute malnutrition of children under 5 as found in the MICS3 to sound a clarion call that the level had approached the critical 10 percent threshold.31 It further indicates that the UN’s Food and Agriculture Organization (FAO) and UNICEF plan to collaborate in nutritional surveys in special areas and in peri-urban areas of the capital, calling attention again to UNICEF’s capacity to carry out household surveys.

Côte d’Ivoire is among the top 15 countries of the world in terms of the prevalence of HIV/AIDS and has the highest level in West Africa. The HIV/AIDS questions included as an option in the MICS3 also responded to an expressed need. The regional tabulations in the Côte d’Ivoire MICS3 report revealed low levels of HIV/AIDS awareness among pregnant women, especially in the northwest region, which had been at the heart of the complex emergency. (Only 5 percent of women in this region had received any information about HIV/AIDS prevention during their pregnancy, and only 2 percent had availed themselves of the opportunity to take an HIV/AIDS test.)32 Additional modules on children orphaned and made vulnerable by HIV/AIDS were available in the MICS3. Those modules proved useful not only for countries where HIV/AIDS is a serious problem but also for regions within those countries where emergencies exacerbate HIV/AIDS-related problems.

UNICEF would benefit from pursuing a strategy that builds the MICS and other smaller household surveys into this process of evaluating humanitarian crises across all its country programs, thus strengthening staff capacity for rapid response, whether in mounting an appeal or in undertaking additional surveys with other partners to inform programs. No tool is available at the moment to meet the demands of humanitarian response in a practical, well-grounded fashion. Despite the call for compliance with international humanitarian law to limit the effects of armed conflict for humanitarian reasons, the tools to measure that compliance are not available.33

UNICEF also needs to be clear about what the MICS cannot do. Whereas it is good for advocacy, the MICS cannot provide the basis for precise estimates of mortality rates or deaths attributable to the crisis. It is useful for broad-based advocacy, but results usually refer to a much-larger population than those immediately affected

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28. Quotations from the MICS evaluation interviews with key respondents.
30. UN OCHA, Ivory Coast Mid-Year Review, 2008, p. 27.
31. UN OCHA, Ivory Coast Mid-Year Review, 2008, p. 28.
32. UNICEF, Ivory Coast MICS3 Report, p. 95.
33. The article generally criticize the UN system, specifically WHO, for the way it succumbs to government demands to publish “official statistics.” They propose the establishment of a “technical, apolitical body dedicated to timely, systematic collection of valid mortality data.... If housed within a UN agency or government, its effectiveness might be stymied by negotiations between UN headquarters, the UN country office, and the host government.” F.Checchi, L.Roberts: Interpreting and using mortality data in humanitarian emergencies. Overseas Development Institute; Network Paper No.52, 2005.
by the crisis. In fact, there is a need for serious work in the measurement field to respond to the programming needs of emergencies. An application of the MERG approach could bring together leading experts in the measurement field and induce them to apply their knowledge to the creation of simple tools that will be operational and will stand up to international scrutiny, much in the way UNICEF did when it developed the MICS.

The MICS Manual 2005, in our view, is too cumbersome for carrying out the simple, rapid household surveys needed under emergency conditions. Respondents particularly referred to the problems of drawing up a sampling frame under conditions of large-scale displaced populations in complex emergencies. The manual used for MICS1 and MICS2 proved more meaningful in this respect. As one respondent put it, “For the MICS2, we were able to conduct an enumeration that we could use for drawing our sample, but for the MICS3, the sampling requirements presented in the manual and the absence of expert assistance when we needed it proved to be the main reason for delaying the survey.”

Comparison of the MICS Manual 2005 with the MICS1 and MICS2 Manuals should serve only as a starting point for any effort to produce a MICS that is better geared to emergency-response conditions.

We recommend that UNICEF give serious attention to the way it can build on and appropriately modify the MICS to better serve country preparedness for emergency response.

Ownership of the MICS

“Country ownership” has different definitions. Most definitions refer to “national leadership, participation, and responsibility.” We have assessed those features in the MICS by asking questions about the management of the survey, the presence or absence of a national steering committee or technical committees, the significant participation in designing and implementing the survey, and the taking of responsibility for the release and use of the results.

The Evaluation Team has examined these aspects of “who owns the MICS” in all its interviews with internal and external stakeholders, both at the HQ and country levels. Questions were also included in the online survey to all countries that carried out the MICS3 and in the detailed questionnaires, interviews, and review of documents that took place in the case-study countries. Using scaled responses to the online survey, we developed a benchmark for performance in the area of “ownership” according to the respondents’ degree of involvement in three key decisions (see figure IV.11):

1. The need for the MICS3 to fill data gaps in country
2. The sampling domains or level of estimation required to meet country needs (scale)
3. The inclusion of additional or optional modules (scope)

This compound indicator was assessed by respondent category and limited to those respondents who would, we presumed, be most directly involved: the UNICEF MICS focal point, the designated survey coordinator at the implementing agency, and the members of the steering committees. As shown in figure IV.11, 61 percent of the respondents considered themselves to be either moderately or highly involved in the decisions, and 39 percent reported either no or low levels of involvement. Percentages varied little among the three types of respondents.

Furthermore, the majority of respondents to the online survey felt that the decision making was transparent, was based on relevant information, was timely, was made by qualified individuals, and was clearly communicated (figure IV.12). Overall, those percentages reflect positively on the decision-making practices that guided the MICS3 implementation. Timeliness of decision making stands out as one area for improvement. One in six individu-

34. Comment of a senior expert and MICS stakeholder in response to in-depth interview.
35. We regret that we were unable to interview those involved in the MICS3 that was mounted during an emergency to learn more about issues they faced with using the MICS Manual 2005, particularly those involved in drawing up the sample. We have only limited anecdotal comments in this regard. It would be helpful to have responses from all the emergency countries that chose not to undertake the MICS and to learn why they did so. The response to our all-country questionnaire was too low to tabulate. The UNICEF staff may want to consider gathering responses from those countries in the future.
37. The questions and response categories were phrased as follows: “Management arrangements for MICS differ on a country-by-country basis. For each of the items below, please select from the following responses to describe your role in decision making: (a) Highly Involved (I made the decision); (b) Involved (I participated in the discussions; it was a joint decision); (c) Limited Involvement (I participated in the discussions but someone else made the decision); (d) Not really involved (I was aware of the discussion but not involved, or I learned of the decision after it was made).”
als disagreed that key decisions were made on a timely basis.

Local ownership of MICS must however move beyond participation in key decisions to meet expressed country and global needs. As quoted by the Senior External UN stakeholder in the box below, UNICEF must go beyond meeting is owns needs with MICS to address the wider expectations of the UN system. However, the respondent uses the term “their” (i.e., UNICEF’s surveys) and points out that if there were more country capacity, UNICEF could confine the scope of its work to UNICEF’s priority areas.

UNICEF currently manages multiple partnerships for the MICS, (see the earlier section on alliances), and those partnerships have grown in number and complexity over recent years. UNICEF’s earlier experience with investing in the UN Household Survey Capability Program is worth recalling here. Despite considerable support in the 1980s and early 1990s, the program did not deliver expected results and had to be dissolved. One respondent pointed out that there were lessons to be learned for UNICEF from this experience. When there is no driving interest in the results of a household survey, then there is less innovation, less commitment on the part of all partners, and lower probability of country ownership.

At present, UNICEF does not draw down—in any centralized manner—on the financial resources of other UN agencies that benefit MICS findings. When negotiating future partnerships, it makes sense for UNICEF to consider costing its contributions and leveraging its position to recover some of the costs associated with MICS. This process might also increase appreciation for the contribution of the MICS to global monitoring. Further consideration of this issue is provided in the discussion of resources below.

Discussion

With respect to governance of the MICS, the Evaluation Team recommends that UNICEF consider addressing the following:

• The governance of the MICS at UNICEF HQ requires a transparent process for the review of new indicators that applies agreed criteria to determine whether the indicators should be included in the MICS.
UNICEF should assign a person or team to take responsibility for making the final decision on which modules are to be developed for the MICS and which indicators will be included. This decision making process should be transparent and timely. It could include a formalized participatory process that is cross-divisional and perhaps cross-regional in nature if desired.

The Medium-Term Strategic Plan and UNICEF’s commitment to the MDGs provide the basis for making the key decisions about what will, or will not, be included in the MICS. They do not, however, set the criteria for these decisions. Programming instructions provide additional clues to the way that UNICEF focuses on achieving results in the context of this plan. These instructions specify that UNICEF senior management may hold units and posts accountable for the delivery of these results. We found documentation that the SIS supports the MICS in a way that reflects two major cross-cutting themes specified in programming instructions. Those themes are achieving a culture of evidence-based action and achieving measurable results. Once again, however, they provide only a framework according to which all activities of the MICS may be assessed. They do not provide criteria for determining which questions, indicators or modules to include in the MICS beyond the obvious: If an indicator cannot be measured in a household survey, then it cannot be included.

The MICS Manual 2005 provides criteria for including indicators in the survey instrument. It specifies, among other criteria, previous testing of indicators. We found evidence, however, that indicators were, in fact, included in the MICS without sufficient testing. We conclude that the criteria are in place, but the decision-making process and authority for their implementation need clarification and strengthening.

It is in the interest of UNICEF to forge stronger ties between its emergency operations and SIS. Instructions about the use of the MICS in emergency preparedness and response may be developed in tandem with the decision to give greater emphasis to incorporating the MICS more solidly into UNICEF’s programming policies and practices.


\[39\] MICS Manual 2005, p. 1.3
procedures. Including these instructions would contribute significantly to MICS governance and to the coordinated humanitarian response. These types of programs call for a modified MICS and somewhat different guidance, but many of the required elements are already available in the accumulated MICS experience and documentation.

UNICEF may want to consider the formation of a steering committee that would advise the Executive Office on decision making for the MICS. It would be useful to include a few expert members in this committee from outside the UN system, as well as one or two senior UN specialists. Membership should represent not only experts in data generation (e.g., demographers and biostatisticians) but also users of the data. There have been dramatic developments in the field of measurement in the private and public sectors. The steering committee might meet only a few times a year. It is essential that it would address key concerns related to child welfare and survey techniques, not simply concerns related to monitoring the MDGs. Possible issues include: the potential for expanding the MICS approach and the adoption of best practices. Members of this steering committee might include the senior UNICEF staff, especially the directors of SIS, the Program Division, and the Division of Communications.

UNICEF may want to consider how to bring the MICS into the center of UNICEF’s country programming culture. In essence, the MICS3 is far more than a tool to measure a small set of indicators related to the MDGs and child rights. The MICS3 provides benefits that extend beyond MDG monitoring, and there is scope for using the MICS to sharpen UNICEF’s position as an organization with a strong evidence-based culture. UNICEF is already giving increased emphasis to other data sources such as registration data and information from sentinel sites. Increased emphasis on the MICS and these sources has the potential to strengthen UNICEF’s already-prominent position as the lead agency for evidence-based programming for children.

UNICEF in its new biennial cycle has considerably strengthened its staffing potential for carrying out the MICS. When the MICS1 was first deployed, only four staff members were responsible for this work at UNICEF HQ. In the last biennium, after the MICS3, UNICEF expanded the number of posts in the SIS. Additional posts were also approved for the ROs. UNICEF may want to take other steps, however, to move more decisively toward becoming a strong evidence-based organization that invests in knowledge management. UNICEF has an edge in informing the media and the public with evidence-based analysis, advocacy, and action. As one stakeholder pointed out, however, the demand for relevant information has intensified, and the expectation for rapid response had increased. UNICEF will need to become faster and smarter at reviewing and releasing results. Among the actions that UNICEF might consider are the following:

- Strengthen the ability and authority of UNICEF ROs at the L-5 level to negotiate surveys and to collaborate with regional institutions that can undertake the review of results.
- Expand partnerships with regional and national organizations that either have or have the potential for developing technical capacity to assess results in specific areas related to children’s well-being and child rights.

UNICEF will need to become more strategic in choosing partners when investing its technical resources. UNICEF’s total expenditure in dollar terms and its growing investment in measurement put it in an excep-
UNICEF is also funding measurement work in an array of organizations, both inside the UN (such as the JMP) and outside the UN (such as the DHS). Greater attention from senior management to these partnerships is needed. The steering committee suggested above could also become part of the new governance structure for the MICS.

There are also ways in which the SIS can improve its ability to share the burden of representing MICS in different IAWGs and partnerships. The SIS can draw more extensively on the capacity in UNICEF’s technical clusters at HQ and on its ROs and COs. An improved governance structure might specify the priorities for investing staff resources into building and maintaining partnerships. Some working groups may require UNICEF participation on only an occasional basis.

**Resources**

**Key Findings**

- Countries leveraged funds from various sources to fund the MICS including: CO, HQ, governments, and other donor agencies. Other UN agencies were frequent funders of the MICS.
- The common motivation among donors for funding the MICS was to obtain sound data to monitor changes in child health and child welfare in a given country.
- Donors usually requested that the MICS team add a module or questionnaire to the overall survey instrument.
- Donors appear to remain interested in future MICS rounds, provided the survey results are made available sooner.
- The input of country governments was substantial and often took the form of in kind contributions.
- The total expenditure for executing MICS3 was about US$18.6 million, including CO and HQ costs. Approximately 85 percent of the expenditures came from the CO level and 15 percent from the HQ level, including the “top-up” monies.
- UNICEF’s average expenditure per country was US$300,000. If UNICEF HQ expenses are apportioned across countries, this total price tag comes to US$356,000 per country. Although these figures were generated using all sources of information available to the Evaluation Team, they should be used with caution because underestimation is likely. For example, in some countries, where other donors disbursed funds directly to the implementing agencies, expenditures were reported to the respective donors instead of to UNICEF.
- The actual expenditure for most of the countries fell within 15 percent of what the CO originally budgeted. The report writing and dissemination sections were commonly underbudgeted.
- The MICS placed overwhelming demands on the M&E staff at the COs. The M&E staff was required to give priority to the MICS at the expense of other responsibilities.

This section provides an overview of the costs and expenditures associated with the MICS3 in the selected countries, and it describes the process of budgeting and fund-leveraging adopted at the country level. An overarching concern of the UNICEF MICS3 Evaluation Steering Committee with regard to financing the MICS3 was to generate information on ways to optimize available resources in future MICS rounds. This section makes recommendations about financing the MICS3 according to the study findings, and it provides options for feasible and realistic actions or adjustments.

**Financing Mechanism**

In the selected eight countries, funding for the MICS3 came from a wide range of sources (table IV.6). In Bangladesh, UNICEF was the sole funding source. On the other end of the spectrum, Côte d’Ivoire had up to seven financers, including the host-country government. Collaboration with other UN agencies, as well as with USAID, was common.

The countries that sought additional funds (to complement those given by UNICEF HQ) adopted a comprehensive process of fund raising. Upon deciding that the MICS3 would be conducted in the country, the CO developed a preliminary budget by following the guidelines provided by HQ during the preparatory workshop. The CO then explored further funding possibilities by contacting potential donors and applying a variety of mechanisms such as workshops, group meetings, and individual meetings to generate interest in MICS.

Among the UNICEF respondents in the on-line survey, 45 percent said that they were moderately or highly interested in the MICS. In a few cases, the search for outside funding began even before the first budget was finalized, but this approach was not the norm.

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40. Details on the method and assumptions are in the methodology section in Annex 1c.

41. In a few cases, the search for outside funding began even before the first budget was finalized, but this approach was not the norm.
volved in acquiring funds from other partners. In the key informant interviews, it was clear that the process for securing additional funding was common to all countries. Still, there were clear country contextual factors that strongly influenced who donated, how much was donated, and what mechanism was used. Following are some examples:

- Many donor agencies left Côte d’Ivoire because of the political instability caused by the war taking place while the MICS3 was being planned. There were, therefore, fewer donors from whom to solicit support.
- In Djibouti, the UNICEF RO M&E advisor supported the CO in advocating for funds, which resulted in support from Agence Française de Développement.
- The presence of donor agencies that support the health sector facilitates additional funding for MICS. In Thailand, there are not many UN agencies because it is a middle-income country. In addition, other donors were not investing in the health sector in Thailand.
- Shared interest among donors in child health-related information increased the chance for securing additional funding for the MICS. In Côte d’Ivoire, the donor community continues to prioritize evidence-based decision making that requires MICS-like data.
- The COs’ relationships with other agencies were used as leverage to negotiate the funding and timing of multiple surveys, particularly in Guyana.
- The government’s active cooperation helped to attract funds, particularly in Ghana. Even when governments do not have funds to contribute, they can be active advocates for MICS.

The motivation for contributing funds for the MICS3 also varied by the donors and was country specific. However, the overarching rationale for supporting the MICS3 was the desire to gather “sound data” to monitor and evaluate the country’s progress using accepted indicators of the health and well-being of children. Following are some context-specific issues:

- Some donor agencies planned to conduct specific surveys and to piggyback on the MICS. For example, in Côte d’Ivoire the World Food Program was planning to conduct its own survey. Instead it agreed to fund the MICS and added a module to meet its data needs.
- Funders often expressed a strong interest in assessing MDG indicators in many countries. The UN Development Programme (UNDP) in Côte d’Ivoire and Thailand was interested in monitoring progress in the MDG indicators at the subnational level.
- There was also interest in gathering data at the subnational level. In Kazakhstan, USAID was interested in having sampling at the subnational-level because the DHS findings address only the national level.
- Joint UN programming provided the impetus for funding the MICS in Kazakhstan. In 2005, at the beginning of a country program cycle, UN agencies planned to work together toward a common goal.

Figure IV.13 depicts the percentage of the committed share of different contributors in the total estimated budget. In four of the eight countries, combined UNICEF CO and
HQ money provided the majority of the financing. In the rest of the countries, even though UNICEF contributed, other donor agencies provided a substantial portion of the total cost, either individually or jointly. Information tallied by UNICEF HQ and provided to the Evaluation Team indicates that among all the countries that conducted the MICS3, 38 countries (69.1 percent) had funding from sources in addition to UNICEF. Those contributors are listed in table IV.7.

In sum, in almost all countries, most funding was from UNICEF HQ or UNICEF COs. Although there is increasing support from other donors for the MICS, it remains a heavily UNICEF-funded activity.
Government Input

In each country, the government contributed significantly to the survey through staff time in all phases of survey operations, as well as through direct financing and mobilizing of additional resources. Information provided by UNICEF HQ indicates that government ministries and departments made direct financial contributions to the MICS3 in 11 countries (20 percent), and NSOs made direct financial contributions in 7 countries (12.7 percent).

As demonstrated in table IV.6, of the selected eight countries, the government made a financial contribution in Côte d’Ivoire and Ghana. However, the input from the governments would be estimated at a much-higher value if all their inputs were able to be linked to line-item costs. Djibouti’s budget document showed government input of 65,000 euros went to the MICS in the form of staff salaries and infrastructure.

Following are some areas of non-monetary input by governments or other organizations:

- Fundraising for additional funds (for example, the Government of Ghana advocated for additional funding from the Dutch government)
- Donating equipment (such as scales and salt-test kits)
- Office space and other infrastructure (e.g., computers and cell phones) needed during survey design and implementation
- Salaries and per diems for the staff
- Vehicles and fuel

Budget and Expenditure

The total expenditure of executing the MICS3 was about US$18.6 million, including CO and HQ costs. Approximately 85 percent of those expenditures came from the CO level and 15 percent from the HQ level, including the “top-up” monies. Across all countries, it is estimated that an average MICS3 cost US$356,000.

Estimated Budget

Figure IV.14 presents a comparison of budgets and expenditures at the country level. Most countries’ estimated budgets were between US$200,000 and US$400,000. The greatest exception was Thailand, which had an estimated budget of more than US$1 million.

Expenditure at the country level does not include the costs incurred at the HQ level for providing consultants and other form of support. The expenditure data were drawn from two different sources. Some of the COs submitted detailed expenditure, but, for some countries, the expenditure data from the COs could not be obtained. In those cases, the country-specific expenditure was extracted from the HQ finance department. There is a high likelihood that all expenditures have not been captured, leading to an underestimation. In some countries where donors disbursed their share directly to the implementing agencies, expenditures were reported to the respective donors instead of to UNICEF. This direct disbursement would also lead to underestimation of actual expense.

The overall conclusion reached from comparing budgets to expenditures indicates that the expenditure incurred by the countries were within 15 percent of the estimated budgets for all countries except Côte d’Ivoire and Thailand. We collapsed all the categories of budget into three broad groups: (a) preparation; (b) the actual survey, including training, pretesting, and data entry; and (c) analysis, report writing, and dissemination. Figure IV.15 compares the country-specific proportion of the total budget dedicated to those groups, as well as among the countries. It is evident from figure IV.15 that the major share of the budget was
Figure IV.14. Comparison of Budgets and Country-Level Expenditure for Seven Case-Study Countries

![Bar chart showing comparison of budgets and expenditures for seven countries.](chart)

Note: Georgia’s budget may be incomplete; Djibouti was excluded because of incomplete data.

Figure IV.15. Percentage of the Total Budget Allocated for Major Categories, According to Country

![Bar chart showing percentage of budget allocation by country.](chart)

Legend:
- **Red**: Preparation
- **Light Red**: Data collection and entry
- **Pink**: Analysis, report, and dissemination
dedicated to the data-collection process. Allocation to the other categories varied from country to country. Thailand, which had a substantially large budget, allocated a relatively smaller percentage to report writing and dissemination than did Bangladesh, which had allocated more than 20 percent of its budget to report writing and dissemination. Overall, countries allocated less than 20 percent of the total budget to activities related to data cleaning, data analysis, report writing, and dissemination.

**Table IV.8. Comparison of Expenditure per Household**

<table>
<thead>
<tr>
<th>Countries</th>
<th>Sample size (number of households)</th>
<th>Expenditure per household</th>
<th>Expenditure per household adjusted by purchasing power parity and exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>62,463</td>
<td>$4.60</td>
<td>$12.90</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>7,600</td>
<td>$80.80</td>
<td>$148.60</td>
</tr>
<tr>
<td>Ghana</td>
<td>12,010</td>
<td>$47.90</td>
<td>$116.80</td>
</tr>
<tr>
<td>Guyana*</td>
<td>5,939</td>
<td>$47.20</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>4,888</td>
<td>$48.00</td>
<td>$110.90</td>
</tr>
<tr>
<td>Georgia</td>
<td>14,564</td>
<td>$19.80</td>
<td>$48.20</td>
</tr>
<tr>
<td>Thailand</td>
<td>40,511</td>
<td>$24.20</td>
<td>$61.20</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>5,179</td>
<td>$60.20</td>
<td>$217.40</td>
</tr>
<tr>
<td>Ukraine</td>
<td>5,243</td>
<td>$49.70</td>
<td>$151.60</td>
</tr>
<tr>
<td>Vietnam</td>
<td>8,355</td>
<td>$36.10</td>
<td>$121.40</td>
</tr>
<tr>
<td>Cuba*</td>
<td>8,343</td>
<td>$34.50</td>
<td></td>
</tr>
<tr>
<td>Iraq</td>
<td>17,873</td>
<td>$40.30</td>
<td>$106.50</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>5,523</td>
<td>$54.20</td>
<td>$142.80</td>
</tr>
<tr>
<td>Cameroon</td>
<td>9,667</td>
<td>$64.30</td>
<td>$135.70</td>
</tr>
<tr>
<td>São Tomé and Príncipe</td>
<td>5,625</td>
<td>$53.80</td>
<td>$102.10</td>
</tr>
<tr>
<td>Average</td>
<td>NA</td>
<td>$44.37</td>
<td>$113.55</td>
</tr>
<tr>
<td>Median</td>
<td>NA</td>
<td>$47.90</td>
<td>$116.80</td>
</tr>
</tbody>
</table>

* The purchasing power parity for 2006 was not available.

Note: Case-study countries are shaded. NA = Not applicable.

Table IV.8 provides a comparison of expenditure per household (total expenditure divided by household [HH] sample size) in the eight case-study countries (shaded) and in countries that received funding only from UNICEF. This analysis was conducted in 15 countries for which expenditure data were available. The table compares expenditure per household before and after adjusting by purchasing power parity.42 This adjustment places the countries in the same dimension—in terms of dollar value and purchasing power—as the dollar in the respective countries; thus, it provides a more reliable comparison. The weighted expenditure ranged from US$12.90 in Bangladesh to US$217.40 in Kyrgyzstan.

### Lost Opportunities or Tradeoffs for Conducting the MICS at the Country Level

The MICS is a large survey with a subnational-level sample and several data-collection modules. In most of the countries, the MICS was conducted through implementing agencies. Positions such as MICS coordinators—either within the implementing agency or at the UNICEF CO—were dedicated fully to the MICS. However, the nature and extent of the survey demanded technical and management input from UNICEF personnel.

One major concern at the HQ level was whether the excessive demands associated with the MICS had a negative effect on other UNICEF technical programs. We discussed this concern with the key informants and asked for their opinion according to their recent

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42. Details on the method used for analyzing financial data are given in the methodology section in Annex 1c.
experiences. Because most of the key informants were responsible for M&E-related work in the COs, their involvement in the day-to-day management of the MICS was extremely intense and nearly all-consuming during the MICS3 time frame. Clearly, the MICS was a priority for the M&E officer in most scenarios because the COs decided that the MICS was a priority. This prioritization was reflected in the respondents’ comments: “Yes, the MICS did result in the sidetracking of other tasks that were to be conducted by the M&E officer, but this was a conscious decision,” and “It was probably the best contribution ever of UNICEF to this country.”

Behind this kind of proclamation, however, lies the reality faced by country level M&E officers. Running MICS often became a one-person show. The M&E officer was assigned the task alone because the officer had technical and management expertise in conducting surveys. This situation was clearly reflected in the voice of a respondent: “Yes, MICS hampered my other responsibilities—the prime responsibilities associated with being an M&E officer were played down so I could oversee the MICS—but this wasn’t my choice.” Despite this change in focus, the M&E staff members accepted the work load unconditionally. At different stages of the survey (fieldwork, analysis, or report writing), some respondents reported that the burden became so overwhelming that M&E-related responsibilities in other programmatic areas such as social welfare became less of a priority.

Though there was no indication that money was diverted from other programs to the MICS, the diversion of staff time and energy away from other major responsibilities resulted in a high opportunity cost. This evaluation did not estimate the value of the benefits that were not accrued because the MICS diverted human resources away from other tasks. However, descriptions of the pressures placed on M&E officers provide a glimpse of the unforeseen effects of the MICS on country programs.

Respondents noted that certain financial structures and procedures made implementation of the MICS difficult. At the country level, UNICEF offices reported little difficulty in acquiring and disbursing funds. In several countries, implementing agencies did, however, cite difficulties emerging from delays in the receipt of funds required for survey operations. The most serious obstacles seemed to arise when UNICEF HQ supplemented country-level funding, typically at the CO’s request. The barrier arises when a UNICEF CO is operating within the first year of its allotted program funding. In those instances, it is not possible for HQ to supplement CO budgets for specific purposes such as support for survey implementation or dissemination of findings. This funding rule provides further evidence of how the management needs of a household survey (which is of short duration and is time-consuming and labor intensive for staff members) are not compatible with established UNICEF management practices. The result is a time-consuming process through which funds available in a given country for the current year are “exchanged” against the future availability of HQ funds for the MICS in that country.

**Donors’ Perceived Value of the MICS and Future Commitment**

The responses to the question of donors’ commitment to investing in future MICS programs were subjective and were based on the personal views of the respondents, not official statements from the organizations themselves. Nevertheless, the donor community’s participation and commitment to the MICS—as explained in the key informant interviews—helps to address part of the question of commitment.

There was clearly an interest among donors to continue to support the MICS. Donors are interested in documenting the status of women and children in the countries where they are investing in the health and welfare of these two groups. The MICS provided some donors with an opportunity to collect baseline data in areas not covered by other population-based surveys, such as child labor. This ability of the MICS to add to the overall availability of data required to monitor child survival interventions resonated across the interviews conducted. Some organizations benefited from the MICS by providing a portion of the budget in exchange for adding a module that generated useful data and allowed the organization to forego conducting its own survey. Respondents from countries that received funding from the European Union and other European donors reported that European donors were particularly supportive of the MICS and expected to continue their support in the future.

Various respondents mentioned one major concern: donors’ disappointment related to the frequency of MICS cycles. The period from the beginning of the survey to the actual dissemination of the report was much longer than expected. This time lag appeared to cause concern among the donor community.

Donors’ support for the MICS, however, did not come without a price. On most occasions, donor contributions
required that the survey include an additional module or questionnaire, which often required an increase in the size of the sample. Furthermore, in some instances, the CO had to prepare a special report for the donor organization according to its requirements. For example, the Ghana CO received funds from USAID, added a male questionnaire for HIV/AIDS, and was required to report the results using standard indicators from the President’s Emergency Plan for AIDS Relief. This need for a special report placed further monetary as well as human resource demands on the survey, especially during field operations.

**Funding Models: Pros and Cons**

The interviews with the key informants from the COs and the informal conversation with staff members from UNICEF HQ indicate that resource limitations should not be considered as the principal factor in deciding whether a country should conduct a MICS. The interviews revealed that the two most common financing arrangements or processes for obtaining funding for a MICS in country are as follows:

1. A country reviews its own budget and determines how much can be dedicated to a MICS. Then it then mobilizes the remaining funds from other partners and donors.
2. A country is able to finance the entire cost of the MICS out of its own budget by having planned for the MICS in previous budget planning cycles and by allocating sufficient funds in the given financial year. This UNICEF country funding for the MICS is then augmented by the $50,000 (fixed amount) that UNICEF HQ dedicates to the MICS. In this second scenario, there are occasions in which a country has to request additional funds from UNICEF HQ at later stages of the survey when funds run low.

One issue to be considered is that middle-income countries such as Thailand and Kazakhstan are being penalized by having only those two options for financing a MICS. Although the countries are able to contribute to some of the cost of conducting the MICS, both Thailand and Kazakhstan are experiencing a steady decline in overall donor funding. If UNICEF decides that there is a strategic need for data on women and children in a middle-income country, in particular, UNICEF should consider investing UNICEF HQ and RO time and energy (i.e., being proactive) in finding sufficient funding for that country and not place the entire financing burden on the CO alone.

Although the two scenarios for financing are the most common, there are other potential ways that a country could raise funds to conduct a MICS. At the global or regional level, the following funding modalities should be considered:

1. **Advocate for or use a global cofinancing system.** Under this model, UNICEF engages in conversations with other major players in child health and other UN agencies (e.g., the Bill and Melinda Gates Foundation, UNFPA, the World Bank, and the President’s Malaria Initiative) and arranges for a pot of money, which gets disbursed purely according to the need of the country. An algorithm for determining need could be developed.

The major advantage of this model is having a reasonably large pool of money at UNICEF’s disposal. This model would also minimize some of the financial responsibilities and obligations that are often unnecessarily put on the countries. Countries spent a significant amount of time raising funds. The money and time saved could be allocated among survey phases to ensure that the costs of data dissemination, data use, and further analysis are adequately covered.

There are two potential disadvantages of this model: (a) donor money is likely to come with strings attached (i.e., agencies could impose extra requirements such as the inclusion of modules or questions, extra reviewers, and revised sampling); (b) this model would entail additional data and analysis requests. Both of those disadvantages are very likely to happen and perhaps could be avoided by having a clearly defined and negotiated Memorandum of Understanding (MOU) in place.

2. **Advocate for or use a UN joint-financing mechanism.** As the UN Development Group pushes for more data-driven decisions and as the countdown to the MDGs continues apace, the feasibility of this option increases. Clearly, some UN organizations, in addition to UNICEF, are likely to be interested in MICS data (UNFPA, UNESCO, UNDP, perhaps UNIFEM, and the ILO). Their data needs might provide the rationale for these partners, notably UNFPA, to invest additional funds in the MICS. Within the MICS3, UNFPA provided funding for one in four surveys. Decisions about this funding were made on a country-by-country basis that was consistent with the agency’s decentralized decision making. However, the net effect of this form of decision making may not be well targeted or strategic. The identification at the
central level of countries with a funding gap would enable middle-income countries or countries in difficult circumstances to tap into the global pool.

The advantage of this process is the sharing of both technical and financial ownership of the MICS process, data, and uses of the data. This mechanism may also reduce the burden placed on COs of negotiating funding arrangements (even between UN agencies). The major disadvantage is the risk that an increase in the number of stakeholders will cause the survey design to be pulled in many directions. There is also a need for greater coordination of fund raising activities to avoid duplication at CO and HQ levels.

Discussion

In sum, this section ties financing and budgeting aspects to the issues of donor commitment and the perceived value of information generated by the MICS. The multifaceted objectives associated with generating and sustaining support for the MICS are driven by an overarching desire to find efficient business models for the MICS in the future without compromising quality. Bearing this in mind, we offer several recommendations for UNICEF to consider.

UNICEF may want to consider a more-structured method of generating funds from other UN agencies. In almost all countries, at least one other UN organization contributed financially to the MICS3, with UNFPA being the most frequent contributor. Because many other UN organizations have mandates that require the collection and use sound data for decision making and are monitoring progress toward the MDGs, their motivation for partnering with UNICEF on the MICS is clear. To date, partnerships have been established on a country-by-country basis, in keeping with the decentralized nature of many of those organizations. However, as the deadlines approach for MDG reporting and as UN systems move toward fuller integration, opportunities for joint funding mechanisms may open up. The mechanisms might include MOUs for collaboration between UNICEF and other UN agencies that most commonly contribute to the MICS, along with identification of priority countries and standards for allocating joint funds.

The Evaluation Team was not surprised to hear of the quid pro quo nature of funding provided by partners and donors in country. The addition of modules or the inclusion of additional respondents may be accepted with careful examination of the actual, yet unbudgeted, burden placed on the survey team. As part of skills development around the surveys, UNICEF staff members should understand the actual added costs that come with the modifications and should negotiate accordingly. In some countries, the additions have a cumulative effect as multiple donors and multiple demands are taken on board. Likewise, the Evaluation Team heard of instances when UNICEF staff members approached other survey organizations that had unrealistic expectations about what their contribution could finance (e.g., “They gave us $10,000 and wanted the moon”).

Results from interviews revealed that the time, energy, and level of effort needed to conduct a MICS and its implications for the M&E staff person were not well understood by other key staff members. This misunderstanding often resulted in a lack of support during the time-intensive months of the MICS. UNICEF should take steps to improve documentation of survey inputs regarding both actual costs (financial, time, and human) and in-kind costs by MICS partners (government, implementing agencies, and other donors) to better estimate the full price of the MICS.

As part of this process, UNICEF should reassess job descriptions, level of effort, and time allotted for specific activities when a MICS is planned. Those important preliminary steps will help the CO more accurately plan for the actual time commitment. As the staff in several countries (Ghana, Thailand, and Côte d’Ivoire) reported in interviews, conducting a MICS side-tracked some other responsibilities of the M&E staff. Better estimation and recognition of the actual time required can help COs to plan accordingly so they do not jeopardize other M&E activities of the program.

MICS manuals currently have guidelines to track the expenditure during the survey. COs should be encouraged to follow the guidelines more closely. Additionally, guidelines might be revised so that in-kind and other costs incurred by partners can be tracked. As the Evaluation Team found, the contributions are quite substantial, yet there is no clear or standard documentation to quantify or describe the contributions. UNICEF COs report to HQ only about the expenditure that was incurred directly by the CO. As a step toward improved MICS management, UNICEF HQ should actively track the expense of the MICS. According to reported expenditures and shortfalls, a clear need emerges for further budgeting guidelines regarding the data dissemination and use phase.
V. External Environment

Context and MICS

Key Findings

- The MICS3 and the countries were assessed using standards established by the Health Metrics Network for population-based surveys within the context of national health information systems. Those elements included both the existence of an integrated plan of national surveys and the integration and streamlining of the MICS with other data sources within the country.

- Across respondent categories, a little more than half (54 percent) agreed that an integrated national plan was in place, while 23 percent of respondents either disagreed or strongly disagreed and a similar percentage did not know.

- Government agencies and the implementing agency staff members largely perceived the MICS to be integrated with other data sources (77 percent and 75 percent, respectively) and agreed with the affirmative statement. UNICEF staff and other stakeholders were less likely to agree that MICS was integrated and streamlined with other data sources. One in three respondents in those categories either disagreed or strongly disagreed.

- UNICEF country offices that “opted-out” of the MICS3 cited alternative household surveys to meet national data needs as the main reason. Lack of available funds was also cited. To a far lesser extent, only six respondents felt that the country’s existing information systems provided adequate information to monitor the situation of women and children.

- Nearly every country office that responded to the opt-out survey reported that they collaborated with other household surveys efforts to fill data gaps either by adding questions or modules to another survey or by providing financial support. The majority of respondents (13 of 20) either agreed or strongly agreed that this collaboration and adequately filled data gaps related to the situation of women and children.

The surveys operate within a highly dynamic environment in which the demand for information on children and women—notably related to health and nutrition—is skyrocketing. This demand is driven by the need to monitor and report on global agreements (including the Millennium Development Goals [MDGs], UN General Assembly Special Session [UNGASS] goals, and Abuja targets), as well as increased emphasis on results management and accountability within many development agencies and country counterparts (e.g., the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the Global Alliance for Vaccinations and Immunization [GAVI]).

A suggested minimum set of national statistical activities, which are needed to monitor the goals and targets of country Poverty Reduction Strategies and the MDGs, should include (a) a demographic survey every three to five years; (b) an income and consumption survey at the same frequency but in staggered years; (c) a health information system that tracks major diseases, service delivery, and vital events; and (d) an education system that accurately measures the performance of the education system.

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This section examines how the MICS is positioned within this environment, particularly at country level. The dynamics of UNICEF and the MICS within the global level arena have been addressed in the Section IV of this report. Issues to be addressed within this section include (a) the MICS role within the “peer-group” instruments in terms of nationally comparable data; (b) the national and subnational development planning, monitoring, and evaluating; (c) the degree to which the surveys duplicate data that can be obtained in other ways; (d) the partners’ perception of the MICS and their value vis-à-vis other data collection instruments; and (e) the MICS role and effectiveness in capacity-building of local partners—mainly National Statistics offices—through training and Technical Assistance (TA).

**MICS within the Context of National Health Information Systems**

MICS is one of a small number of nationally representative household survey programs that generate comparable surveys across countries. Similar survey programs have existed since the 1980s with the World Fertility Surveys. Today, such survey programs include the Demographic and Health Surveys (DHS) of the U.S. Agency for International Development (USAID), the Reproductive Health Survey (RHS) of the Centers for Disease Control (CDC), and the more recent World Health Surveys (WHS), which were organized by the World Health Organization (WHO). Within the country context, those survey programs are among a small number of population-based data sources, along with vital registration and censuses (figure V.1).

Most developing countries rely on some form of household surveys to supplement other population-based data. Those surveys are used to provide timely and representative data because censuses are conducted only every 10 years and because many civil and vital registration systems have incomplete coverage of key events. Of all countries that conducted surveys through MICS3, 27 had no other national household survey during the period of 2003 to 2007, which is an indication of a substantial gap-filling role played by the MICS3. However, as seen in figure V.2, in several countries where the MICS3 was conducted, there is a relatively crowded national house-

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hold survey agenda with four countries (Burkina Faso, Ghana, Kenya, and Nigeria) implementing four or more surveys during a short time frame. According to country-level interviews, it was found that implementing only one other survey at the time of the MICS3 could lead to competition for time and attention of the statistical agencies and delays in implementation.

Respondents in each country describe the MICS as unique in the survey’s role to monitor the MDG indicators or in their ability to collect some indicators that are otherwise unavailable through other surveys or routine statistics. In several countries (Bangladesh and Ghana), country-level respondents cited the intended role of the MICS to provide interim data between two DHS. In terms of other data collection efforts, country-level respondents saw the MICS as equal to and fully compatible with the DHS and—to a lesser extent—with the Core Welfare Indicator Surveys or the World Bank/Living Standards Measurement Surveys (LSMS).

Countries also rely on household surveys to supplement the information available through institution-based sources such as routine service reporting from health facilities. Those sources are not representative of entire populations because they do not capture the non-users of services and are typically limited to public-sector services users. The challenge to UNICEF is to see (a) that those sources are strengthened and appropriately used for decision making, particularly at district levels, and (b) that efforts are made to analyze and reconcile the MICS results with those generated through other data collection systems.

**MICS and Long-Term National Survey Plans**

The MICS3 program was assessed using standards established by the Health Metrics Network for the population-based surveys (see table V.1). Two of the strategic elements included in table V.1 were made operational through the online surveys and interviews that were carried out as part of this evaluation. The elements included the existence of an integrated plan of national surveys and the integration and streamlining of the MICS with other data sources within the country. Findings on those two factors are reported next.

Through the PARIS21 (Partnership in Statistics for Development in the 21st Century) efforts, there is global
External Environment

Consensus on the importance of strategic plans (a) to guide the development of national statistical programs, (b) to direct political and financial support for investments in statistics, and (c) to ensure that countries will be able to produce the data needed for monitoring the MDGs and their own development plans.

In the current environment, which is characterized by a high demand for information for goal monitoring, results-based management, and accountability, the strategic plans can serve national statistics agencies to help them manage and meet such needs while using scarce resources to their greatest effect.

Central to national statistical plans would be the identification of data needs, including core indicators, for the coming 10 or 15 years, accompanied by an analysis of which data sources best meet those needs. Such plans should also project—over the same time frame—all major national population surveys that are scheduled, along with the roles of national and international stakeholders and partners.

Responses to the online survey (figure V.3) point to the progress made in creating such plans and to the gaps that remain. Across respondent categories, a little more than half (54 percent) agreed that an integrated national plan was in place while 23 percent of respondents either disagreed or strongly disagreed and a similar percentage did not know. It is notable that one in four implementing agency staff members—typically national statistical authorities—cite the absence of such plans, and 18 percent did not know whether such a plan existed or not. The lack of such plans acts as a barrier to UNICEF country offices, which are seeking to ensure that the MICS program is well coordinated with other efforts in terms of timing and content and is not duplicative of other anticipated survey efforts.

Respondents interviewed in country described the MICS as something that the statistical authority should take on because of the respondents’ mandate, even though the MICS3 program was not included in their work plan. As reported by the UNICEF regional staff, when not included in national strategic plans of data collection and in MDG and Poverty Reduction Strategy monitoring, MICS may not get enough political, financial, and technical attention. Strong advocacy from UNICEF headquarters, regional offices, and country offices may be needed to help put MICS onto the agenda.

This tendency of national statistical authorities to overcommit does not affect only the MICS program. Senior staff members at the DHS noted similar difficulties with statistical offices. However, because many of countries conduct DHS on a regular basis (every five years), they often take the timing of the next DHS into account during planning. In the next round of DHS (scheduled to be

### Table V.1. Standards for Population-Based Surveys within the Wider Health Information System at Country Level

<table>
<thead>
<tr>
<th>Standards</th>
<th>Strategic Elements</th>
</tr>
</thead>
</table>
| A regular, well-integrated, countrywide, demand-driven survey program that is part of a national health information system that generates high-quality information on population health, risk factors, health service coverage, and data—all of which are internationally comparable. | • Integrated master plan of surveys to be conducted through 2015
• Appropriate integration and streamlining of surveys with other health data sources
• High-quality health and socioeconomic information generated on a regular basis
• Internationally accepted standards for conducting surveys regarding ethical issues, design and implementation, and analysis and dissemination
• Use of local surveys as needed |


4. Ibid.

awarded in 2008), the USAID will increasingly require that DHS participate in longer-term planning with statistical offices and others in country to outline the country’s anticipated household survey activities.

Maximization of MICS Value through Streamlining and Integration

A second strategic element that has been examined dealt with the integration and streamlining of the MICS with other sources of data within the country. Integration of population-based survey data with other data sources can include the use of survey data to validate data from routine sources. Several UNICEF staff members who were interviewed pointed to the importance of the MICS vitamin A coverage data to help calibrate and interpret both data from campaigns and routinely reported data. Other potential integrative methods might include the following:

- Linking household survey data with demographic sentinel surveillance systems to extrapolate detailed data from small areas to large populations;6
- Giving full consideration to other options such as civil registration systems when deciding on data collection for specific topics (e.g., mortality or cause of death). These systems may require longer-term investment and will not produce immediate results, but, eventually, may produce more frequent and complete data; and
- Supporting the use of local surveys aimed at district-level decision making.

As seen in figure V.4, opinion was more polarized on this issue than the preceding. Government agencies and the implementing agency staff largely perceived MICS to be integrated with other data sources (77 percent and 75 percent, respectively, agreed with the affirmative statement). The UNICEF staff and other stakeholders were less likely to agree that the MICS program was integrated and streamlined with other data sources. One in three respondents in those categories either disagreed or strongly disagreed. The divergent opinions may be related to differing expectations in regards to the further analysis and use of the MICS data. The staff members at implementing agencies were less knowledgeable about the actual use of MICS data than were some other respondents. For the national statistical offices, “integrated and streamlined” may be perceived to mean simply sequential household

surveys with one following another and censuses conducted once every 10 years.

**Reasons for Opting Out of MICS**

UNICEF Country Offices responded to the Executive Director’s call for action on mid-decade assessment through assorted means. Although 55 countries and territories chose to do the MICS3, a large number of countries chose to use other data sources including other planned household surveys. Those UNICEF country offices that did not conduct an MICS3 program were queried through an online survey about their decisions. The UNICEF staff members—typically country representatives and the monitoring and evaluation (M&E) specialist staff—in 25 countries responded.

The UNICEF country offices that opted-out of the MICS3 program cited alternative household surveys to meet national data needs as the main reason. Lack of available funds was also cited. To a far-less extent (only six respondents) felt that the country’s existing information systems provided adequate information to monitor the situation of women and children. In about half of the opt-out countries that responded, the country office discussed the possibility of doing the MICS with others in countries. The national statistics offices were most frequently consulted, followed by ministries of health, finance and planning, and other UN agencies.

Nearly every country office that responded reported that they collaborated with other household surveys efforts to fill data gaps either by adding questions or modules to another survey or by providing financial support. Indeed, among donors other than the U.S. government, UNICEF is a leading contributor to the DHS program and supports RHS particularly in Latin America. The majority of respondents (13 of 20) either agreed or strongly agreed that this collaboration adequately filled data gaps related to the situation of women and children.

**Discussion**

In the coming years, the MICS will operate in an increasing complex and crowded data-gathering environment. Activities aimed at monitoring MDG indicators will step up, and a new DHS program will be launched. Moreover,
countries are increasingly under pressure to produce data on performance and results for initiatives including the Global Fund to Fight AIDS, Tuberculosis, and Malaria and GAVI. Countries will be under increased pressure to collect and report data with the related risk of forgoing further analyses and further use of programming and planning. The MICS are well positioned, given the vastly increased visibility and credibility of the surveys and the strong technical basis brought about through UNICEF’s leadership and participation in interagency working groups.

Several steps can help the MICS to maneuver in this increasing complicated external environment. Interagency working groups are clearly central to advancing the measurement agenda for a number of program areas. Such working groups become the norm for advancing the measurement state of the art in development activities. UNICEF should see that each of its priority program areas is included in the work of such interagency groups; the aim should be agreement on core indicators and methods of data collection. Particular attention should be accorded to new programming areas to ensure that robust strategic information from multiple sources is developed. UNICEF and other partners would benefit greatly by having (a) a clear pathway described for strategic information inclusive of the proper roles for household surveys, (b) use of routine and administrative information, (c) special studies, and (d) other forms of information. Ideally, such information would be developed and packaged in a forward-looking strategic manner as opposed to arising primarily in response to new international agendas and accords (e.g., the World Fit for Children Declaration).

At country level, steps should be taken to see that the MICS program is fully included in long-term survey plans that are coordinated and managed by national authorities, typically statistical agencies. UNICEF should be an active partner in supporting governments and in seeing that such plans are in place and that they account for data on the situation of children and women through the MICS and other surveys. Working together with the new round of DHS, UNICEF could help substantially to advance the agenda on national surveys plans. Finally, UNICEF should take steps to see that the MICS program is firmly embedded and integrated with other forms of data on children and women. Indeed, as recommended elsewhere in this report, UNICEF could add real value by demonstrating how the MICS can be used to complement and verify health information system data and, in part, to offset the growing demand for larger samples.
VI. Looking Forward

In looking to the future of the MICS, the Evaluation Team would like to recognize the enormous progress that has been made in the conduct of the MICS program between rounds. The recommendations and proposed actions described by the Evaluation Team represent a challenge to address completely—even if the next round were to be slated for 2010. However, as mentioned previously, senior leadership has decided to implement the MICS4 in 2009 and subsequently in three-year rounds.

Throughout this report, the Evaluation Team has expressed concern about the three-year cycle.\(^1\) There is a risk that the three-year cycle can amplify many of the weaknesses identified in this evaluation. Thus, it becomes contingent on UNICEF to manage the potential pitfalls in a pro-active and transparent manner. In this section, information from respondents about the three-year cycle will be reviewed, and recommendations will be made for moving forward.

Respondents to the online survey were asked about their level of agreement with the following statement: “It would be useful to have the MICS carried out at more frequent intervals (more frequently than every five years).” As seen in figure VI.1, one in three respondents, on average, either disagreed or strongly disagreed with this statement.

Both online survey respondents and interviewees in country were asked about the major challenges of a three-year cycle (as an open-ended question). With the exception of government agency respondents, who were more likely to disagree, responses were consistent among UNICEF staff members, implementing agencies, and other stakeholders. Reasons for this disagreement were summarized and rank-ordered from open-ended responses to the online survey (table VI.1).

There are, of course, advantages to be derived from the three-year cycle as well. The shorter cycle will enable more secure planning, budgeting, and staffing. It will also encourage national governments and UNICEF offices to plan for surveys over the course of a country program of cooperation, which we understand averages five years. It would enable strategic planning within country—with the national statistical office, UN and donor partners laying out a plan to address both goal monitoring and the use of adjunct instruments and complementary methods to explore some questions in more detail.

A more frequent cycle could also benefit certain countries and situations, if UNICEF is able to work with the needed agility and technical expertise. For example, using the MICS in response to special situations—such as disaster prone areas—may be facilitated if the survey is leaner and lighter. The more frequent cycling could also open up opportunities to invest in validation studies or other special surveys to test new questions, modules, and methods.

Rolling out this new, more frequent cycle will require a number of important preparatory steps. More important, UNICEF should recognize that this new cycle does not represent “business as usual” with the routine steps of (a) revising the questionnaire and supporting materials, (b) issuing an Executive Directive to announce the timing for the next round, (c) recruiting countries to participate, and so forth. UNICEF will need to take a number of more fundamental steps to ensure that the new cycle builds on best practices and does not just amplify the weaknesses.

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\(^1\) The Evaluation Team operated at some disadvantage because a decision about the three-year cycle had been taken but no firm plans were yet in place.
Implication 1: More frequent surveys will require a stepped-up level of professional and organizational commitment. If UNICEF cannot commit the resources needed to manage the MICS with this frequency, subcontracting with a professional survey research organization is a suitable alternative.

Several factors examined by the Evaluation Team point to the advantages of subcontracting elements of the MICS, particularly when a more frequent cycle is envisioned. UNICEF’s structures and management system present challenges to quality assurance through (a) the “mismatch” identified between decision-making responsibility in Country Offices and needed expertise (headquarters and regional offices), (b) the delays caused by staff turnover and workload, and (c) the effect on other monitoring and evaluation (M&E) work in support of country programs. Further, given the estimated costs of the MICS3, which are acknowledged underestimates, it seems feasible that an external organization could deliver a similar product for the same cost. Such subcontracting would need to be done in a manner that norms and standards are used uniformly across countries and regions. It is recommended that future use of regional institutions be subject to “hands-on” contract and performance management. Indeed, the use of performance-based contracts for those services is feasible. This approach would appear to stand in contrast to the approach used in the Middle East and North Africa (MENA) region with a regional institution.

Table V.1. Challenges to Implementing a Three-Year Cycle for the MICS Surveys: Online Survey Respondents

<table>
<thead>
<tr>
<th>Rank</th>
<th>Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acquisition of funds for the survey</td>
</tr>
<tr>
<td>2</td>
<td>Workload or capacity of implementing agency</td>
</tr>
<tr>
<td>3</td>
<td>Time required to complete the survey</td>
</tr>
<tr>
<td>4</td>
<td>Need for greater coordination or integration</td>
</tr>
<tr>
<td>5</td>
<td>General capacity issues (including UNICEF capacity)</td>
</tr>
<tr>
<td>6</td>
<td>More frequent surveys that won’t meet the need for further disaggregation</td>
</tr>
<tr>
<td>7</td>
<td>Many indicators that will not change frequently</td>
</tr>
</tbody>
</table>

Figure VI.1. Opinions of MICS Frequency: Online Survey Respondents

- Disagree or strongly disagree
- Agree or strongly agree
- Don’t know

Table VI.1. Opinions of MICS Frequency: Online Survey Respondents

<table>
<thead>
<tr>
<th></th>
<th>UNICEF</th>
<th>Other stakeholders</th>
<th>Implementing agency</th>
<th>Government agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Agree or strongly agree</td>
<td>80</td>
<td>60</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Don’t know</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>
A three-year cycle will place a considerable additional burden on UNICEF country offices, especially those with limited human and financial resources. It will also place considerable burden on UNICEF headquarters and regional offices. Current staffing and budgets are insufficient to manage a three-year cycle for the MICS.

All this will require leadership by UNICEF representatives who are comfortable in an evidence-based environment and are capable of managing the policy and programming opportunities and issues that may arise. There are indications that UNICEF has a cadre of representatives with this capacity; the evaluation has recorded where UNICEF has used the MICS in innovative ways.

UNICEF’s Executive Director and Regional Directors need to continue to challenge all Country Representatives to make evidence-based work—and especially the MICS—a centerpiece of their country programs. Special briefings, training, and teambuilding will be needed for this change to be put into practice. Representatives and the senior members of their country team, including the Deputy Representatives, monitoring and evaluation offices, and communication officers, should be evaluated on the quality and timeliness of their country’s MICS and how effectively the country team uses the results.

Implication 2: The MICS questionnaire should be as focused and streamlined as possible. This approach will require both technical and managerial action.

On the technical side, careful consideration will be needed concerning those measures that are likely to change in a relatively short period of time on the basis of available evidence.

**Table VI.2. Survey Modules for Key Health Statistics with Proposed Frequency of Application and Additional Data Sources**

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency (Years)</th>
<th>Indicators</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mortality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child mortality</td>
<td>Birth history</td>
<td>5</td>
<td>Child mortality rates</td>
</tr>
<tr>
<td>Cause of death</td>
<td>Verbal autopsy</td>
<td>5</td>
<td>Main cause distribution</td>
</tr>
<tr>
<td><strong>Morbidity and Health States</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute disease</td>
<td>Recall symptoms in the previous 2 weeks</td>
<td>3–5*</td>
<td></td>
</tr>
<tr>
<td>Incidence of frequent conditions</td>
<td>Recall data that often result in poor validity; clinical reports and disease surveillance that are complementary sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal and child health preventive interventions</td>
<td>Health card review; recall</td>
<td>2</td>
<td>Coverage immunization, maternity care, etc.</td>
</tr>
<tr>
<td><strong>Service Coverage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal and child health treatment interventions</td>
<td>Facility use for recent disorders</td>
<td>2</td>
<td>Rates, if treatment by those in need</td>
</tr>
<tr>
<td><strong>Risk Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk factors (child)</td>
<td>Proxy reporting and bio-markers</td>
<td>3–5</td>
<td>Water and sanitation; nutritional status and feeding patterns</td>
</tr>
</tbody>
</table>

* Depending on the expected rate of change.

analyses that will be required to make such determinations. Drawn from the published literature, this table addresses key health statistics only. Similar analyses are, of course, required for all content areas within the MICS. Adequate time must be allotted before developing the MICS questionnaire and modules so researchers can conduct the analyses. Decisions will be needed on the important role of impact measures, such as mortality measures, and on how they can be accommodated. The result of the analyses will be extremely valuable for other stakeholders and governments that are contemplating the timing of future survey efforts. As a related product, interventions that are known to be effective in improving child well-being (e.g., thermal practices for newborns) but that lack valid indicators for use in large-scale household surveys can be identified and prioritized for validation studies.

On the managerial side, this process of deciding on indicator inclusion and exclusion must be conducted with high standards of transparency. Decision makers at all levels will need to recognize that every three years is simply too frequent to invest in measuring some indicators. Determining the core questionnaire and modules should be guided by clear processes and a group of individuals who bring both (a) seniority within the organization and (b) requisite technical skills.

Both within and outside UNICEF, communication about MICS4—who, what, how, where, and when—should be done early and often with tailoring to key audiences. The options available to countries with a three-year cycle will require careful consideration and planning. A very rough schema of possible options appears in figure VI.2. Tailoring and communicating messages about the options will require some skillful communication.

**Implication 3:** A far greater degree of coordination will be required at country level.
Consistent with the earlier sections of this report, the MICS should be anticipated and included within national statistical plans among other projected household surveys. Several interviewed partners expressed concern about the three-year cycle and UNICEF’s ability to coordinate and conduct a dialogue on the ground. Ensuring the appropriate “fit” of the MICS will require an ongoing dialogue among the UNICEF country office, national statistical authorities, and other donors and partners. The discussions should also identify opportunities to include questions and modules related to children in other household surveys, thereby reducing the need for the MICS. Finally, the enhanced coordination efforts provide an opportunity to identify local M&E capacity needs in the context of monitoring national goals and indicators.

**Implication 4: The truncated timeline will cause the most disadvantage in data use at the country level, an area already flagging.**

As identified earlier in the report, evidence of MICS data use at the country level was less prominent than its corresponding use at global level for the global goal monitoring and advocacy. Many countries that conducted the MICS3 have substantial delays in the issuance of their final reports. Careful forethought will be needed as to the nature of the timeline of activities under the three-year cycle. Certain processes (e.g., data processing, analysis, and report writing) may need to be re-envisioned as being more “hands-on” through either workshops or consultancies. Products should also be geared toward the reduced timeline with dissemination taking the form perhaps of preliminary report and fact sheets rather than a detailed, full-length, final report.
VII. Recommendations

This section summarizes key findings and recommendations generated from the evaluation of UNICEF’s Multiple Indicator Cluster Surveys Round 3 (MICS3). This evaluation was carried out between November 2007 and July 2008 by a team of independent experts working under contract to John Snow, Inc. This section is aimed at senior managers and decision makers within UNICEF, and it synthesizes priority findings into a set of four overarching recommendations. Those recommendations are intended to complement more technical and operational recommendations and the supporting evidence that appears in earlier sections of this report.

The Evaluation Team found that the information generated by MICS3 is clearly an important part of the evidence base for programming and policy making within UNICEF. The MICS3 program is valued among global-level partners for global monitoring and advocacy, particularly related to the Millennium Development Goals (MDGs). At country level, 9 of 10 stakeholders interviewed felt that the MICS3 was an integral part of the country’s information base about women and children. In most countries examined, the quality of data was on a par with other respected household survey efforts. UNICEF used many aspects of its organizational structure, processes, and culture to make the MICS3 a high priority. The technical assistance, tools, materials, and training that were developed and provided by UNICEF headquarters (HQ) to support the MICS implementation were held in very high regard. UNICEF country offices sought other donor support for financing; in many countries, multilateral and bilateral agencies contributed to the survey.

Those positive findings have to be balanced against suggestions for further improvement and strengthening of the survey program. Although the data quality in most countries was comparable with that in other global survey programs such as the Demographic and Health Surveys (DHS), in at least two of the eight countries studied, some significant data quality lapses were noted, as well as deviations from accepted norms and recommended practices in sampling and field work procedures. Final reports are often delayed for long periods—to the point that the data are no longer seen as timely. UNICEF’s decentralized structure meant that critical technical decisions were negotiated by those with the least knowledge and experience in the conduct of household surveys. Lack of clear processes and structures for strategic decision making contributed to proliferation of indicators. Stakeholders have serious concerns about a move to a three-year cycle of MICS implementation and about the heightened demand for coordination of any such effort.

The value that UNICEF places on an evidence-based approach to improving the survival and well-being of children is clearly evident in its commitment to this multiyear, multicountry program to collect data on children’s well-being. The recent progress report on UNICEF’s Medium Term Strategic Plan demonstrates this reliance on information to guide policy and programming across its five focus areas. For those reasons alone, there should be no reduction in the level of commitment to the MICS3 program and its possible successors. Senior managers within UNICEF are encouraged to continue and expand core support for this important initiative. The recommendations in this section highlight specific actions to improve and advance the MICS initiative.

1. The Evaluation Team recommends that UNICEF clarifies and reinforces the primary objective of MICS—at the global level for monitoring and advocacy and at the national level for advocacy related to children’s well-being. UNICEF is strongly encouraged to resist the dual pressures of expanding sample sizes to generate subnational estimates and to expand content—particularly where indicators are not yet fully validated—by establishing parameters to better guide and support such decisions.

UNICEF’s mandate—with countries and stakeholders worldwide—is not that of an agency primarily devoted to survey implementation (such as the DHS project implemented by Macro International Inc.) nor of an agency such as the United Nations Statistical Division, whose prime functions include improving countries’ statistical services and national capacity through advice and training. UNICEF rather has need to use and thus to generate or access credible data for advocacy purposes, as well as for program development, results monitoring, and priority-setting. According to a wide range of stakeholders—either interviewed directly or canvassed through a wide-reaching online survey—UNICEF and the MICS play an important and valued role in supporting those efforts at international, regional, and national levels.

At the country level, one consequence of this prominent role and the remarkable ready-made (“off-the-shelf”) availability of the MICS is an enormous demand for surveys that have greater degrees of disaggregation and that require larger and more complicated samples. Managers responsible for surveys that are part of the MICS report an ever-escalating demand for such large-scale survey efforts. Indeed, UNICEF country-level staff members and UNICEF stakeholders expressed frustration over the fact that the MICS program does not or cannot generate lower-level estimates. This demand is driven, in part, by weak routine information systems and by the resulting deficit of robust information at the subnational level. In such situations, the MICS could and may often be viewed as a likely vehicle to fill important information gaps.

Surveys in the MICS program can and do produce data that are appropriately disaggregated by sex, urban and rural residence, and socio-economic position, which are all key measures of equity. The Evaluation Team, however, believes that UNICEF should focus the MICS on what it does well and should resist pressures to conduct very large surveys that produce lower-level, subnational data that are primarily for program management and assessment.

The reasons to avoid such large-scale surveys are three-fold:

- The evaluation found variability in the quality of the surveys that are part of the MICS in terms of adherence to recommended sampling procedures, data collection practices, and resulting data quality. Unless the required human and financial resources are available at the country level, the quality of the surveys may be compromised by increasing the sample size to adequately make estimates at a required precision at the lower subnational levels.

- Other measurement methods are more appropriate to support lower-level decision making such as vital registration, service and administrative records, and use of sentinel sites as routine information sources. Expanding the size of global household survey programs to fill this role can potentially displace resources that would otherwise be devoted to strengthening those systems.²

- Finally, for UNICEF, the generation of information at very disaggregated levels is secondary to the concern about establishing national capacity to conduct surveys to an acceptable standard, although UNICEF’s expertise and experience in generating sub-national statistics will be useful for countries that are ready to take on such tasks.

1.1 Therefore, the Evaluation Team advocates limiting the MICS to those functions that the program performs well and for which it is clearly highly valued, namely for monitoring and advocacy at the global level and for advocacy related to priority-setting for children and women at the national level. Practically, this approach would mean restricting funding to the support of national and a limited number of subunits (regions or provinces in most cases) in each survey.

The implication for UNICEF management is increased adherence among Country Representatives to the focus on national figures and results for urban and rural areas separately. Only rarely would management present data for more than 5–6 subdivisions, even in larger countries.

The heavy demands placed on the MICS are a function of not only the number of individuals to be sampled but also the number of variables to be collected. Over three rounds, the MICS program has grown in size four-fold (between Round 1 and Round 3). The number of indi-

A proliferation of indicators not only affects the MICS but also is a generalized trend that is driven, to a certain extent, by demand for data to monitor performance and to ensure accountability. Perhaps of greatest concern is the push to include indicators that are not yet fully field-tested or validated. Surveys experts in global data, monitoring, and evaluation who were interviewed were unanimous in their opinion that nonvalidated indicators do not belong in large-scale, nationally representative household surveys.

The development of valid indicators for new programming areas are best addressed through rigorous, small-scale validation studies as a precursor to their inclusion in large-scale surveys. Preparations for Round 3 of the MICS would have benefited from a more well-defined and structured decision-making process to determine the standards for inclusion.

1.2 The Evaluation Team recommends that a decision-making process that is based on a set of clearly defined and applied criteria is needed to determine which indicators should be included in future rounds of the MICS (e.g., new measures should have the endorsement of a recognized interagency technical group and should have field tests and reviews in 5–8 different country situations). This step is viewed as a strategic management function at headquarters level with accountability for the final decision resting at the level of Deputy Executive Director. Technical staff members should continue their full participation in efforts of the International Household Survey Network to arbitrate and to catalog the validated questions and modules and direct investment toward areas requiring further validation.

1.3 The Evaluation Team also recommends that priority should be assigned to those measures that have demonstrated association or effects on long-term child health and well-being objectives, such as mortality reduction. For the interim period (2009 through 2015), those priority measures may be construed as MDG indicators and other internationally agreed-upon coverage measures. This prioritization should be balanced with efforts to advance the state-of-the-art in measuring child well-being in the longer-term (which is the subject of a separate recommendation later in this section).

1.4 The Evaluation Team recommends that UNICEF should produce a shortened core questionnaire with clear decisions on the inclusion of full birth histories and with additional modules; funding should be limited to surveys that include interviews that are manageably short.

2. The Evaluation Team recommends that UNICEF bolster quality assurance through several mechanisms. At the center of those efforts is recognition of the “mismatch” inherent within the decentralized organizational structure. As the team found, survey expertise resides at headquarters and, to a lesser extent, at the regional level, while the locus of technical decision making is at the country level. UNICEF is urged to rationalize decision-making processes so that those with greater expertise and experience are more closely involved in key technical decisions, either directly or through consultant staff members. Resources for technical assistance should be expanded and processes should be formalized.

UNICEF’s support for the MICS operates through the organization’s existing decentralized structure with roles and responsibilities differentiated at HQ, regional, and country levels. The decentralized structure is ideally suited to ensure that UNICEF understands and supports government and partners in their national priorities and can provide guidance and oversight of the agreed program of cooperation. The decentralized structure is less well suited to make highly technical decisions on aspects of survey design and management. A related challenge is the provision of appropriate technical advice and training to participating countries. In the opinion of the Evaluation Team, improving and strengthening those two processes will move the MICS toward greater consistency in data quality and will facilitate greater levels of data use.

The Evaluation Team found that the UNICEF organizational structure through which the MICS3 is implemented is suboptimal for the achievement of its objective and can result in (a) authority for decisions and negotiation residing with those least experienced and knowledgeable in household survey methodologies; (b) delays caused by staff turnover and review processes; and (c) less than effective quality assurance measures because the need for technical assistance may be overlooked locally, thereby resulting in late-stage “rescue” operations. Key operational decisions are negotiated or made at the country level by UNICEF staff members who have limited professional preparation. In this regard, the Evaluation Team’s findings about the decentralized structure as an impediment to quality assurance, coupled with unclear accountabili-
ties, are strikingly similar to conclusions reached in other recent reviews of UNICEF.3

The UNICEF Country Office (CO) is the primary liaison with government counterparts and the implementing agency and is at the forefront of negotiations on key operational decisions with those partners. This work is typically carried out by an individual designated as the MICS focal point, a responsibility with no formal written set of expectations. A CO’s monitoring and evaluation (M&E) officer would typically serve as the focal point. In smaller offices where there is no M&E officer, the role of focal point would be assigned to another person. Drawing on responses to a wide-reaching online survey, the Evaluation Team found 37 percent of MICS focal points had no prior direct involvement with household surveys. Of all UNICEF staff members surveyed (country and regional levels), only 40 percent had prior experience with MICS Rounds 1 or 2, suggesting that the agency has not sustained its capacity from the previous exercises.

The majority of countries conducting the MICS3 required and received some form of technical assistance from UNICEF for the surveys. UNICEF receives universal accolades for the quality and responsiveness of its technical assistance, according to both in-country interviews and the online survey. The MICS3 Manual was reportedly used by the vast majority of survey implementers and was given high ratings. The regional workshops were also seen as extremely useful.

Despite satisfaction with the technical assistance received, several of the countries studied deviated from MICS3 guidelines for fieldwork preparation and data collection practices. In some instances, the need for skilled technical advice is identified only after key decisions have been taken and implemented, thus necessitating last-minute intensive technical support to salvage the effort.

Regardless of the amount of training, preparation, and supervision provided, every survey has the potential to produce aberrant results. Several elements are central to the success of any household survey. First, the survey has to be manageable within the resources available. Underpaid field workers or supervisors can destroy the best-planned studies. Second, there has to be a commitment to rigor at every stage of the study—from careful construc-

tion of the survey instrument, to attention to fine detail in connection with the sampling, and to strict supervision of the data collection and data-capture phases. Finally, there has to be an appreciation that the information being collected is both important and useful by both the population being surveyed and the consumers of the information. Steps can be taken by UNICEF to address all three issues in future surveys.

One general contribution will be to limit the complexity and length of the surveys conducted in the future because those survey characteristics influence problems to the data quality and overall reliability of every survey. Another important step that UNICEF can take is to expand its support for the more-difficult strategic questions that routinely arise during survey implementation (e.g., when adaptations to the standard two-stage sample design and core questionnaires or modules may be needed). In myriad instances, additional high-level support is needed.

2.1 The Evaluation Team recommends that each region should have an international and related expert reference group (e.g., the Child Health Epidemiology Reference Group) with prior experience of such special areas. The group should be convened to help guide and establish standards for country-level implementers. At certain key junctures in the MICS implementation, members of the expert reference group would be convened to review and provide input about key elements of survey design and implementation. Their responsibility should be clearly defined as assisting countries to adhere to well-established international norms and standards. The Chief of the Strategic Information Section (SIS) at UNICEF headquarters should set the terms of reference for the expert reference groups. A member of the headquarters’ MICS team should participate in the expert group meetings.

It is unrealistic to expect highly skilled survey expertise to be present in UNICEF’s COs. The profile for in-country individuals at the level required in the above recommendation should include sufficient knowledge of accepted household survey procedures, plus being able to identify potential problems and to seek advice accordingly. As reported by several individuals interviewed, many UNICEF M&E officers at the country level do not bring those requisite skills and can be more accurately characterized as program reporting officers.

The surveys in the MICS program, if implemented as intended, are a relatively short-term, time-intensive activity. To avoid delays, the assigned staff members must be

able to devote the needed time without significant other commitments. The basic requirements would suggest the need to substantially upgrade the skill set among M&E officers and others who have been assigned responsibility for the MICS, as well as to define clearer accountabilities for successful and timely implementation within the CO. UNICEF may learn from the experience of United Nations Joint Programme on HIV/AIDS (UNAIDS) in this regard.

In response to the country demand for HIV/AIDS-related M&E support, UNAIDS launched a program to recruit and to place M&E advisors in country posts. After four years, 60 such advisors are in place at either the country or regional level. Those country advisors, ranging in professional grade from P3 to P5, are recruited not only for their technical knowledge of M&E but also for their ability to coordinate many players, to assume a leadership role, and to support the government in creating an M&E system. The UNAIDS Evaluation Unit provides a range of technical support and oversight with training programs geared toward entry-level, medium-level, and senior-level skills. A career path is being created in which the P5 post is intended to keep highly skilled staff members in M&E so that advancement options are not limited to management positions. The regional posts are all at the P5 professional grade.

The point here is not to directly compare UNICEF with UNAIDS, whose mandate, operating modalities, and program or policy focus obviously differs. The UNAIDS reference is offered as an example of a high-level commitment to significantly upgrade M&E capacities that are closest to the “action on the ground” and to support the government in leading and coordinating an increasingly complex monitoring environment.

2.2 On the basis of the substantially increased demand for child health and well-being statistics, the Evaluation Team recommends either that the country office’s M&E officer post is upgraded or that a new post is created to foster and to develop a professional track of staff members who are in country offices and who deal with information management, data analysis, and interpretation related to child well-being.

This officer would have the ability to make judgments about the quality and representativeness of data from different sources (e.g., censuses, incomplete vital registration, other household surveys, and information from routine sources such as health facilities) and to appropriately triangulate that data with the MICS. Furthermore, this person would have responsibility for ensuring that, once the survey plan had been agreed and vetted regionally or internationally, the recommended procedures (questionnaire design, training, conduct of field work, data capture, checking and cleaning, analysis) are indeed carried out as agreed. Further, this individual would be responsible for working closely with national statistical authorities and M&E experts who are based in other agencies and with donors to position the MICS—or alternative data collection mechanisms—within the country’s long-term plans for data collection. Practically, the officer needs to understand where the explanatory power of the MICS ends and how other data sources are needed to complement and complete the evidence base.

The new regional MICS coordinator posts that are currently being recruited will fulfill a different referral function and will need to attract experienced and well-qualified professionals with backgrounds in applied statistics—especially sample surveys and epidemiology—and in related areas such as program M&E.

2.3 The Evaluation Team supports the appointment of a regional evidence-management staff with strong backgrounds in survey design and analysis, as well as in data capture and editing. As seen by the team, when in place, the officers will catalyze decision making related to the MICS and will prompt a range of data utilization efforts.

Those individuals should have the authority and resources to bolster quality assurance practices through several means. One option for regional-level action is to create a panel of experts on an ad hoc basis to deal with particularly difficult or complex issues (i.e., the oversampling of subpopulations; the countries with very inadequate sampling frames; the unstable or disaster-stricken areas) that are likely to be beyond the expertise of the CO staff.

In addition, regional officers should be encouraged and supported to contract with regional institutions to provide technical assistance. Stipulations for regional technical assistance mechanisms include the assurance that international standards of practice will be applied and that careful oversight and management of those resources can be guaranteed. During MICS3, arrangements with one such regional institution fell short of some expectations, and lessons should be drawn from this experience.

Until such a fully capacitated staff is in place, the responsibility for key technical decisions should be shifted to include headquarters-level staff members. Currently, the
HQ staff provides advice only upon request from either regional or country offices. The input is provided for the consideration of the requesters without authority to approve or ensure modifications where and as needed. Although this role is consistent with the organization’s decentralized character, it has the unintended consequence of (a) allowing technical deficiencies, both major and minor, to go undetected or uncorrected and (b) adding lengthy processes of HQ reviewing and advising, followed by the implementing agencies revising and resubmitting, and then HQ again reviewing and advising.

2.4 The Evaluation Team recommends that the advisory role of the UNICEF headquarters be altered to include approval. This approval authority should be limited to a small number of key decisions and may be performed by HQ staff members, designated consultant, or review panels. This recommendation is not intended to supplant local ownership of the MICS processes. Rather, it is intended to ensure that the locally owned data are valid and have the quality standards needed to support local efforts. In sum, the Evaluation Team believes that greater value is derived from “owning” credible data rather than from ownership alone.

2.5 The Evaluation Team further recommends the additional clarification of accountabilities for staff members at all levels in regards to the MICS. Within the UNICEF country office, accountability for leadership of the surveys as part of the MICS—and understanding strategic measurement choices—should rest with the UNICEF Country Representative and with the senior country management team (e.g., the Deputy Representative and the M&E officer). UNICEF representatives and their teams should be scored and recognized in corporate reviews for the quality and timeliness of their surveys. Additional materials and training are needed to increase the senior country management team’s understanding of the key features that ensure or threaten quality in each survey in the MICS program. The country team should be able to speak knowledgeably about the features with other MICS partners when making strategic choices and when reporting on the findings.

The MICS program is not present in the basic UNICEF programming documentation with the kind of prominence one would expect, given the major role it has come to play in monitoring the situation of children worldwide. The Medium-Term Plan also makes little or no direct reference to the MICS, with an exception in a reference to the more than 75 surveys from the MICS, which are expected over the course of the Medium-Term Strategic Plan. Although there are many references to evidence-based approaches and the use of findings for advocacy, UNICEF’s flagship for such approaches, the MICS, is not prominent in the text.4 We conclude that there is a conceptual and action divide behind UNICEF country programs and the use of the MICS for assessing and reporting on progress toward the global goals. Although this divide does not appear to be a hindrance to UNICEF COs that decide to undertake an MICS program, the disconnect is indicative of the tension associated with relying heavily on MICS for meeting a myriad of data needs.

3. The Evaluation Team recommends that UNICEF capitalize on its investment in the MICS to strengthen and appropriately expand the evidence base for children and women through means designed to complement the nationally representative household survey. The MICS should serve as a centerpiece of a larger coordinated effort to generate high-quality data from a variety of sources.

UNICEF invests substantially to develop data on the situation of children and women. During the period of 2006 and 2007 alone, UNICEF’s expenditures for the MICS totaled US$13.6 million and an additional US$4.6 million for DHS or other household surveys. The MICS can be considered as a platform from which complementary data collection and analysis activities may be launched. Options for such an approach might include the following:

• Design and rigorously test new measures of child well-being. Great demands are placed on the MICS and similar data collection vehicles to include new—and oftentimes untested—indicators. Experts consulted in the course of the evaluation were unanimous in their opinion that indicators that have not been fully validated should not be included in national household surveys. Experts also pointed to the proliferation of indicators commonly included in household surveys, and they called for a greater focus on those that are actually used in program management. (One leading expert bemoaned, “We need to go back to the idea of an indicator—it actually indicates something…”) UNICEF and its partners can contribute to the state-of-the-art process by systematically designing and fully validating new indicators before inclusion in the MICS and similar surveys.

Practices across sections may be modeled on the Joint Monitoring Program for Water and Sanitation, which

has a long history of doing just this—field testing of new indicators—through its work with national authorities, expert reviews of the results, and global level reviews of lessons learned with technical papers available as background. This process would also contribute to improved technical capacity in country and at the agency level (a) for assessing the quality of survey results for specific indicators and (b) for establishing the “ground rules” for testing and potential inclusion in the MICS.

Rather than pursuing new measures in an ad hoc manner, UNICEF should see that the validation efforts are coordinated by a well-defined leadership that has been drawn from across divisions and programs. At the country and regional levels, representatives and their country teams should be encouraged to become involved in testing new measures while collaborating with other in-country and regional organizations and thus while contributing to the global development of new measures for potential inclusion in the MICS. Such work is currently under way in Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS) region to examine migration and its effects on children, and that work should be strongly encouraged in other regions as well. Participation in these activities has the potential to encourage country leadership, to improve technical capacity, and to foster the kind of competition that will strengthen UNICEF and national capacity.

• Further analyze the MICS and other data sources, including trend analysis on key child health and well-being issues. Investments in the MICS can be further maximized by seeing that the data are fully and appropriately analyzed and used in decision making. Although there is abundant evidence of MICS-related analysis at global level, far less evidence was found at country and regional levels. The Evaluation Team found that external partners and stakeholders recognize the evolution in the technical quality and rigor of the surveys in the MICS program over time. Drawing on a detailed analysis of nine surveys, the team itself judged the quality and reliability of the results in most countries to be on a par with other major household surveys, such as the DHS, around the world.

The M&E of child survival and well-being interventions requires information from a variety of sources including the MICS. At one extreme of the spectrum of evaluation efforts are the double-blind, placebo-controlled randomized trials. UNICEF clearly has little role in such studies except as a consumer of the results. At the other end of the spectrum are activities that are not randomized, including some operations research, intervention studies and routine program monitoring that uses data from service statistics and health facilities.

To relieve the pressure—whether from countries or from new initiatives and programs—to conduct very elaborate and large household surveys, UNICEF should develop the international, regional, and national capacity to collect, analyze, and use coverage and service utilization data from routine sources. In the well-funded and coordinated push to achieve the MDGs, national health information systems continue to receive short shrift. Although prone to biases of coverage and selection, those data can often reveal some of the national richness that countries seek, as well as providing a more localized assessment of program effectiveness. Taken together with other data sources, MICS data can be used to verify and elaborate on levels, trends, and differentials within countries.

The Evaluation Team recognizes that there is no idealized, linear relationship between specific data points and policy making. However, the team encourages UNICEF to take a more active role to see that MICS data are being used—appropriately and jointly with other sources—to contribute to evidence-based policy and programming. Evidence from this evaluation indicates a considerable degree of country ownership for MICS3 data. However, the information’s transition from the realm of statistical authorities to decision makers within ministries and departments may need a boost.

Actions to facilitate the use of the MICS3 data may include ensuring that appropriate analyses of the MICS are available and targeted to decision makers at the right time (in time for annual planning, budgeting, program reviews, etc). UNICEF should encourage joint reviews of the MICS results in the context of other data sources in country to help decision makers and program staff members to understand how the sources can be reconciled to tell a story. Internal to its organization, UNICEF can encourage greater participation in MICS by UNICEF program and communication staff members to help them gain experience in thinking about and working proac-
tively with data so they gain a sense of ownership of the survey tool and its results.

The investment made in MICS data production is well established. Investment in data dissemination and use is just beginning to take off. The infrastructure and interventions for improving data use have come late in the MICS3 cycle and are not as well coordinated as those focusing on data production. There is also some evidence of lack of clearly assigned responsibility in UNICEF and country partners to facilitate data dissemination and use. Some UNICEF staff members interviewed pointed to a gap between M&E and communications officers and to the need to ensure that a set of coordinated actions are planned and carried out for data use. It is advisable to consider how central, regional, and country levels can play a more well-defined and systematic role in facilitating use of the MICS data than was done previously.

3.1 The Evaluation Team recommends that UNICEF increase its emphasis on data analysis and use by commissioning or soliciting bids for further and comparative analyses of the MICS data, with the condition that local participation is maximized. The team further recommends that UNICEF support the original use of facility and other routine data to discern levels, trends, and differentials in health and survival at the subnational level. Country offices should be held accountable for the translation and integration of the MICS data into evidence-based policies and programs.

4. The Evaluation Team recommends that UNICEF consider a move toward a permanently established information and coverage support center, which would include other data collection and analysis strategies focused on the situation of children and women in addition to the further support of future MICS “rounds.”

In creating such a structure, UNICEF would be in a position to differentiate its work further from that of DHS and similar survey schemes. One of UNICEF’s main goals should continue to be the building of in-country capacity to generate timely and useful information for improving the position of children and women.

Several elements are key here—not just the MICS surveys themselves. A prime aim would remain the development of the national capacity for M&E, as well as gathering information for priority-setting at all geographical levels. A second aim would be to develop the capacity to make fuller use of often pre-existing data from other sources—censuses, other household surveys, routine and facility-based data, research studies, and information from longitudinal study sites—to measure changes in the health and welfare of children and their mothers.

Altogether, this approach would lead UNICEF to support a variety of worthwhile information-gathering activities and to help develop a more locally adapted approach to status and coverage measures. In such a context, making a firm commitment to a three-year cycle of surveys that use the MICS program in each country seems increasingly inappropriate to the team.

Moving ahead with the three-year cycle would position UNICEF as a major survey force on a level with DHS, albeit with fewer resources and very differing structures. In our view, however, this position would put at risk the other work for which UNICEF has become so well regarded. UNICEF’s great strength in measurement for advocacy comes from the knowledge and involvement of its staff in programs that improve the survival and well-being of children.

If we recognize that countries would not necessarily conduct MICS programs every three years, the proposed cycle still leaves only a short turnaround for developing and updating the standards and materials at HQ and little time for data dissemination or report production, let alone actual data use. Such a program will also require a far greater degree of coordination at country level with the requisite skill sets, additional technical support staff members, and quality assurance mechanisms to support the increased pace and volume of work.

4.1 The Evaluation Team recommends to formalize the training in survey design and analysis and in data use through regular workshops, distance learning, and production of additional technical manuals and illustrative analyses. The team also recommends to contract with an independent organization to conduct and run such services along the lines of the U.S. government-supported MEASURE Evaluation project.

4.2 Finally, we recommend making even more routine and standardized many of the very positive aspects of the MICS, including training and skills building. Because

7. An important difference between the MICS and DHS is the timing of phases. The MICS is driven by rounds, which support a large number of countries to conduct an MICS program during a relatively short period of time. DHS works with a rolling design, thus allowing countries to time the survey according to national priorities over a longer period.
many of the tasks described earlier are likely to become quite standardized, we recommend that regular and on-going training sessions are established well in advance of the surveys themselves. It would be possible to develop online training courses for UNICEF staff members and partners and to arrange for periods of hands-on training in connection with other surveys. This way, a cadre of UNICEF staff members can be created that helps to develop the message that UNICEF is serious about producing and using good quality data about children from a broad range of sources for policy and action.