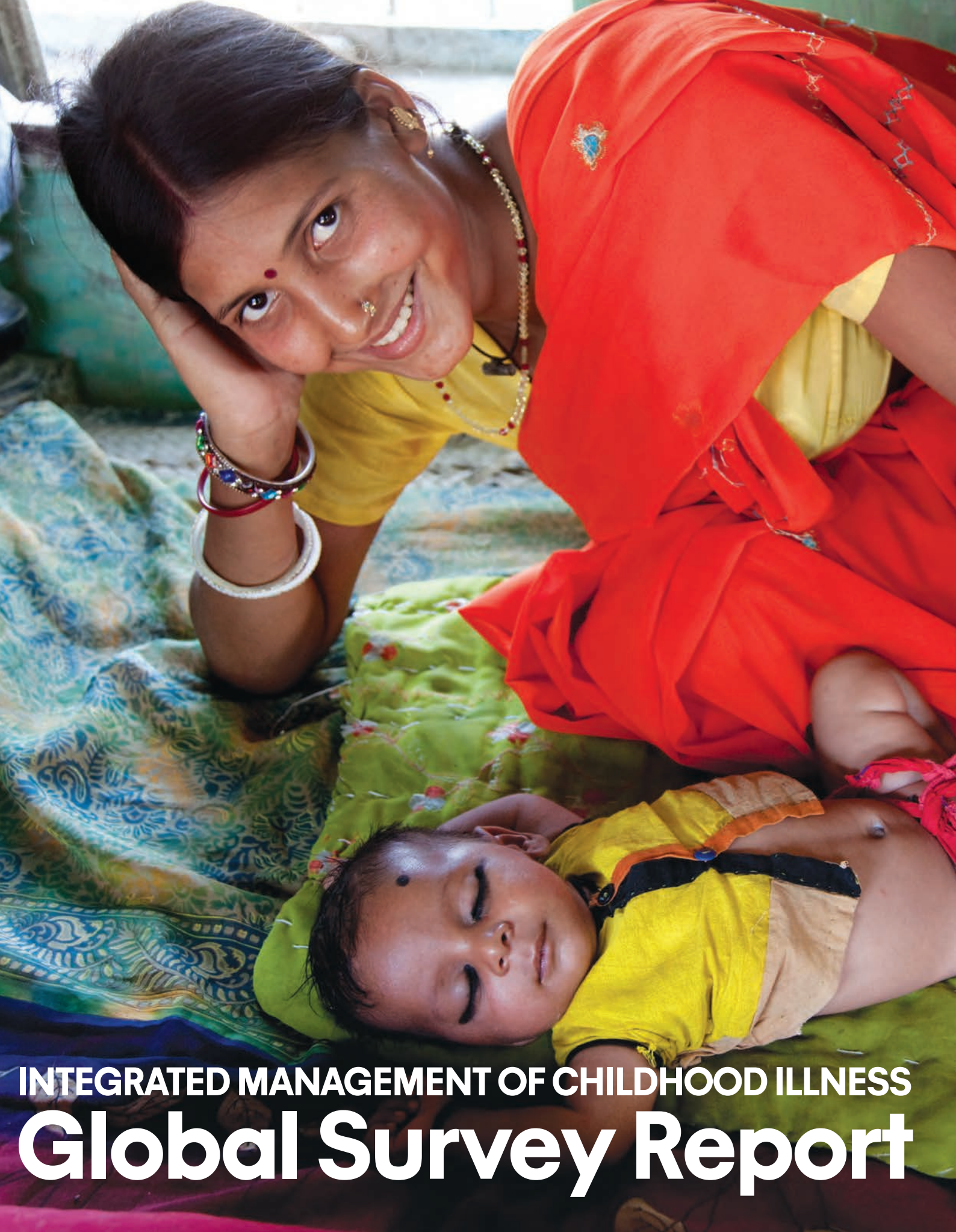

INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

Global Survey Report

World Health Organization

Integrated Management of Childhood Illness global survey report
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Foreword

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My first action as Director of the WHO Department of Maternal, Newborn, Child and Adolescent Health was to commission a review of the Integrated Management of Childhood Illness (IMCI) strategy. As a paediatrician who has worked in resource-poor countries, I have witnessed IMCI's vital contribution to reducing child mortality and morbidity and in ensuring practitioners and policymakers take a holistic view of the health of the child. IMCI and its sister policy, integrated Community Case Management (iCCM), are two of the most widely implemented child health strategies worldwide. Whether in Nepal or India, Ethiopia or Malawi, I have met front-line health workers grateful for the IMCI training they received, because it helps them feel confident about providing children with the best standard of care. Nonetheless I realised we lacked a comprehensive data set on the extent to which the IMCI strategy had been implemented worldwide. After 20 years of implementation, we needed to know much more about the IMCI coverage, successes and challenges.

This report presents the results of a 2016 global survey of IMCI and iCCM implementation – the most comprehensive review yet of on-the-ground realities of two leading child health strategies focusing on case management. Included are responses from 95 countries accounting for around 95% of the 5.9 million deaths occurring among children less than five years of age. In addition to providing detailed statistics, the survey also shares reflections from the people charged with implementing these strategy. These views provide insights into factors that facilitated or blocked progress, and ideas for the way forward. The results provide a further look at the dynamics previously explored in the 2003-05 Multi-Country Evaluation and the 2004 Analytic Review of IMCI.

This survey is important for the future. As we engage in a re-design of our child health strategies, the IMCI survey data will help understand the base we are working from – and what is needed to prevent newborn and child mortality and ensure each child's healthy growth and development. WHO's new Director-General Dr. Tedros Adhanom Ghebreyesus has made universal health coverage and the health of women, children and adolescents as two of his five priorities. Progress has been good but there is much to be done. This survey report gives us much food for thought about how we can accelerate progress.

I'm so proud of the many people who have contributed to the report , from colleagues at regional level who helped design and refine the survey instrument, to the hundreds of people in countries who took the time to locate and report accurate information and reflect on their experiences with IMCI in country. At WHO headquarters, many staff members participated, but special thanks are due to Cynthia Boschi-Pinto and Guilhem Labadie, who worked tirelessly to ensure this report's accuracy, readability, and aesthetic excellence. Children are our most precious resource – and IMCI has played a central role in protecting their health. This report will help us to refine and improve care for children everywhere.

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Abbreviations and acronyms

ACT	Artemisinin Combination Therapy
AIDS	Acquired Immune Deficiency Syndrome
BCC	Behaviour change communication
BCG	Bacillus Calmette–Guérin vaccine
CHD	Child Health and Development
CHW	Community Health Worker
c-IMCI	Community Integrated Management of Childhood Illness
CCM	Community Case Management
diMCI	Distance-learning Integrated Management of Childhood Illness course
DHIS2	District Health Information Software version 2
DIVA	Diagnose, Intervene, Verify and Adjust
DPT	Diphtheria Pertussis Tetanus
ECD	Early Childhood Development
EDC	Essential Drugs Concept
e-Health	Electronic Health
EML	Essential Medicines List
EQUIST	Equitable Impact Sensitive Tool
ETAT	Emergency Triage Assessment and Treatments
GDP	Gross Domestic Product
Hib	Haemophilus influenzae type B
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICATT	Integrated Management of Childhood Illness Computerized Adaptation and Training Tool
iCCM	Integrated Community Case Management
ICT	Information Communication Technologies
IMCI	Integrated Management of Childhood Illness
IMNCI	Integrated Management of Newborn And Childhood Illness
LMIC	Low- And Middle-Income Countries
LMIS	Logistics Management and Information Systems
BBB	Marginal Budgeting for Bottlenecks
MDG	Millennium Development Goal
MDG4	Millennium Development Goal – Target 4
m-Health	Mobile Health
MOH	Ministry of Health
MNCH	Maternal, Newborn and Child Health
NGO	Non-Governmental Organization
NPOs	National Professional Officers
ORS	Oral Rehydration Salts
PCV	Pneumococcal Conjugate Vaccine
PIFRA	Pakistan Improvement to Financial Reporting and Auditing Project
PHC	Primary Health Care
QOC	Quality of Care
RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
RTV	Reservoir-Targeted Vaccines
SAM	Severe Acute Malnutrition
SMS	Short Message Service
SDG	Sustainable Development Goal
TB	Tuberculosis
UNICEF	United Nations Children's Fund
UN	United Nations
UN-IGME	United Nations Inter-Agency Group For Child Mortality Estimation
U5MR	Under Five Mortality Rate
WHO	World Health Organization

Executive summary

Each year 5.9 million children under-five die, mainly from easily preventable and treatable causes (Liu et al., 2016) and many more fail to reach their full potential in terms of healthy growth and development. Integrated Management of Childhood Illnesses (IMCI) is a premier global child health strategy created in the mid-1990s to address these problems, and is widely implemented around the globe. Much work has been done and published in the scholarly and gray literatures on different aspects of this strategy's implementation and effectiveness over the past 20 years, but to date there has been no holistic description of IMCI implementation worldwide. This report, based on results from a global survey on IMCI implementation, attempts to fill that gap.

The global survey was part of the Strategic Review of IMCI (WHO 2016) and was carried out from April – June 2016 to assess the extent to which this strategy has been adopted and scaled up in countries since its outset. This report presents the main results from the survey and provides an overview of the current status of global implementation of IMCI as informed by countries. It also describes the main strengths and barriers of implementation, as stated by respondents, as well as ways forward suggested by country-level implementation partners in countries around the world.

Questionnaires were sent to 130 WHO Member States, and 104 countries (80%) responded. In the end, 95 countries implementing IMCI were considered for the final analysis, which in 2015 were home to 82% of the global under-five population and accounted for 95% of the 5.9 million child deaths occurring that year.

In 1998, shortly after IMCI's inception, 12 countries had already moved into a phase of expansion of the first IMCI component - improving health worker skills, and had begun introducing the strategy's other two components: strengthening health systems and improving family and community practices (Tulloch 1999). Twenty years later, coverage of IMCI is reported to be comprehensive in many target countries: at least two-thirds of the 95 countries that responded to the survey questionnaire reported implementation in 90% or more districts in 2016. However, although many countries have expanded aspects of implementation to a large proportion of their districts, few have achieved full scale up and, in many aspects, implementation remains incomplete. Moreover, despite the high reported implementation rates, the strategy is still not reaching the children who need it most: coverage of IMCI is lowest in high mortality countries.

One of the factors originally identified by early reviewers of IMCI as influencing the general success of IMCI was the establishment of a management structure, such as a working group or task force, with early experience also suggesting the need to identify a coordinator. As countries have moved towards decentralization in recent years, the existence of sub-national focal points has increased in importance. Results from this survey show a higher proportion of countries with an IMCI focal point at national level than at the sub-national (regional or district) level. Notably, nearly 90% of high mortality countries had a national focal point, but less than half had sub-national focal points.

There is widespread recognition that IMCI will only result in improvements in child health and survival if training activities are accompanied by effective efforts to strengthen health systems and reach children and mothers in the community. The first component, improving health worker skills, is the most widely implemented. Ninety-two of 94 responding

countries (98%) reported having implemented it. In addition, in most countries (58%; 43/74), half or more of the first level health facilities had at least 60% of health workers involved in child care trained in IMCI (a key indicator of effective implementation). Many countries have added conditions to the guidelines to adapt them to regional and national epidemiological profiles, or to emerging priorities. For example, recognizing the increased importance of the burden of newborn mortality, nearly all countries (95%) have adapted IMCI guidelines to include care of the sick newborn in the first week of life. Countries have also made changes to make IMCI implementation more feasible or affordable, such as by using shortened or abridged versions of the original 11-day course. Some limited evidence suggests that the original longer course is more effective than shortened training, but there is a trade-off due to concerns regarding the longer training's

while improving and sustaining the quality of paediatric care is an integral part of strengthening health systems, only 58% of the 92 responding countries reported having a paediatric quality of care improvement programme for health facilities in their Ministry of Health (MoH). Supervision – considered key for sustainable health system strengthening – was found to be the weakest area, with only 15% of countries reporting that more than 75% first level health facilities had at least one supervisory visit in the six months before the survey. Monitoring of IMCI implementation – also considered critical for strengthening health systems – was found to be infrequent. Only one-third of countries (30/91) reported having a comprehensive IMCI monitoring and evaluation plan, and in high mortality countries, this existed in only 15% (3/20).

With respect to the third component, 78 of 94 countries (83%) reported

through home visits, and through social mobilization or community groups. Most commonly used delivery mechanisms were home visits for counselling on key family practices; home visits in the postnatal period; and home visits during pregnancy and community groups. Social mobilization was reported by 59% of countries. Overall, the proportion of countries using home visits as delivery mechanism was higher among high implementer countries.

Activities to strengthen health systems and reach communities were by far the least implemented of IMCI's three components, across all countries. Thus, full implementation of this strategy has yet to be seen.

Community case management (CCM) was not initially included in IMCI and came later on its heels, after policymakers realized that many child deaths occurred in the community, before the child reached

- iCCM, typically delivered by CHWs at the community level. iCCM was reported to be implemented in 72% of countries, although the policy was present in a higher proportion.

Forty-four countries have reported implementing IMCI in more than 90% of districts and also having all three IMCI components in place; these are considered full implementer countries. These countries are home to 160 million of the global under-five children. MDG4 achievement is a critical consideration in measuring country's success in the reduction of under-five mortality. Full implementer countries were 3.6 [95% CI 1.5 – 8.9] times more likely to achieve MDG4 than other (not full implementer) countries. Our results reinforce the original concept that full implementation of IMCI can lead to substantial impact on child health and survival.

The survey asked respondents to identify key strengths and barriers in the implementation of IMCI, providing valuable field-level perspective on what has worked – and what hasn't worked – from country stakeholders familiar with operational details. Before this survey, such a detailed subjective evaluation of IMCI implementation was not available from such a broad global sample of country stakeholders and implementers. Perhaps

unsurprisingly, the most commonly mentioned barriers to implementation have their roots in insufficient funding and weak health systems: staff turnover, motivation and retention were cited as major challenges. Nevertheless, the major strengths identified - the holistic approach to the child, the rational use of medicines, the quality of health services, and the efficiency of service provision - offer both a validation of the strategy's overall conception, and useful feedback for global stakeholders working on a forthcoming re-design of global strategies for child health and development.

Limitations inherent to survey design, such as the fact that respondents may tend to provide a more "positive" scenario than the reality, condition interpretation of its results. However, the 2016 IMCI survey provides a unique and needed data set to understand how and in which direction the implementation of IMCI has evolved over 20 years since its inception – as well as stakeholders' subjective perceptions about what worked well, and what could have worked better. The results are also valuable in that they provide the first comprehensive look at this global key strategy for addressing child health in countries with the highest levels of mortality and morbidity.

Results also point to a unique opportunity to help steer future policies, programmes and strategies. Given the many competing priorities of survey respondents, the 80% response rate obtained reveals the interest IMCI still elicits, especially in low and middle income countries, and suggests a strengthened IMCI has a role to attend the call for "Survive, Thrive, Transform" from the Global Strategy for Women's Children's and Adolescents' Health 2016-2030. The 95 countries that responded to the survey are home to the vast majority of under-five population and account for 95% of under-five deaths. These results therefore provide learnings from the past and directions on the future of global child health strategies, as well as guidance on how to promote the health and survival of children, including in emergency settings. Recognized by implementers as an efficient and equitable strategy, IMCI full implementation in health facilities and communities with a critical focus on health system strengthening and on emergency crises will be decisive for countries to secure Universal Health Coverage (UHC) and to help achieve the UN health-related, post-2015 Sustainable Development Goals (SDGs).