

Determinants of coverage



Countdown recognizes the importance of health systems, the legislative framework, financial resources and contextual factors (such as education, water and sanitation, governance, conflict and other humanitarian emergencies, environment and socioeconomic factors, including the status of women) in determining country ability to achieve high and equitable coverage. This section provides an update on country progress in strengthening health systems and the policy environment for women and children; trends in official development assistance for maternal, newborn and child health; and examples of how context matters in maternal, newborn and child survival.

Strengthening policies and health systems: the building blocks for progress

Countdown monitors key health policy and health system indicators critical to the scale-up of essential reproductive, maternal, newborn and child health interventions. Selected indicators cover the continuum of care and the six health system building blocks (leadership and governance, health systems financing, access to essential medicines, health information systems, health workforce and health service delivery).¹⁷ The good news is that there has been progress in policy adoption and health system strengthening. But gaps remain and must be addressed for *Countdown* countries to achieve Millennium Development Goals 4 and 5.

Supportive legislation is a key first step in improving access to and quality of care; it must be followed by sustained political commitment and strong support from stakeholders so that policies are translated into action on the ground. In 2012, 30 of 68 *Countdown* countries with available data reported adopting a policy recommending postnatal home visits within the first week of life, critical for ensuring that newborn babies receive essential care when the risk of mortality is highest (figure 15). A recent WHO survey found that community health workers in Sub-Saharan

African and Asian countries with this policy provide home visits for both mothers and newborns (box 11).¹⁸ The number of *Countdown* countries with a policy allowing community health workers to treat pneumonia, enabling access to timely lifesaving care at the community level, has more than doubled in four years, from 18 to 38.¹⁹ Sixteen countries have adopted a policy on pneumococcal vaccine,²⁰ and nine a policy on rotavirus vaccine, demonstrating a strong commitment from governments to introduce these new and effective interventions for child survival. However, progress has been limited on protective policies for maternity leave for new and expecting mothers²¹ and on the International Code of Marketing on Breast-milk Substitutes,²² which are needed to create an environment that promotes maternal and newborn health.

Critical health systems input: human resources

Implementing supportive policies and programmes for reproductive, maternal, newborn and child health depends on adequate human resources. Health care workers can deliver quality services effectively only if sufficient funds are allocated to support the health care infrastructure, including supply chain management and health information systems. Increasing access to care also depends on reducing financial barriers to receiving care, particularly out-of-pocket costs.

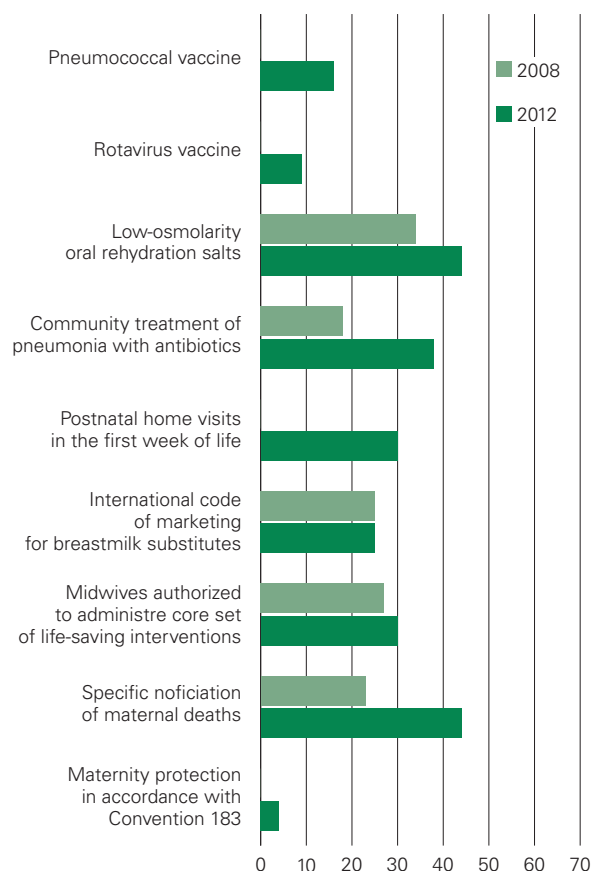
A total of 53 *Countdown* countries (including South Sudan) have a severe shortage of health workers, defined as an aggregate density of physicians, nurses and midwives below 2.3 per 1,000 people.²³ In many cases available health personnel have an inappropriate mix of skills relative to service needs on the ground.²⁴ The human resources crisis is most pronounced in *Countdown* countries in West and Central Africa and in East and Southern Africa (figure 16).

Inequities in the distribution of health care workers within *Countdown* countries are also vast. Reasons include shortfalls in the number of trained workers

FIGURE 15

Changes in adoption of supportive policies along the continuum of care

Number of 68 *Countdown* countries with data that have adopted each supportive policy along the continuum of care, 2008 and 2012



Note: Covers the 68 *Countdown* countries with data since 2008.

Excludes Comoros, Kyrgyzstan, São Tomé and Príncipe, Solomon Islands, Uzbekistan, South Sudan and Vietnam.

Source: See annexes A and C.

available and reluctance on the part of health workers to serve in remote and rural areas because of unsatisfactory living and working conditions, lower status and levels of recognition, and a lack of opportunities for professional advancement.²⁵ Seventeen *Countdown* countries encourage health care providers to work in underserved areas by adopting WHO global policy recommendations for health worker education, regulation, financial incentives, and professional and personal support.²⁶

Addressing the human resources crisis for reproductive, maternal, newborn and child health is a major call to action in the Global Strategy for Women's and Children's Health.²⁷ The Second Global Forum on Human Resources for Health in

2011 called on all stakeholders to combat the human resources crisis through widespread adoption of supportive policies (for example, on innovative skills mix approaches, deployment and retention schemes, and training), improvements in health workforce information systems and predictable long-term investments in health workforce development.²⁸

There are positive examples of innovative approaches to tackle health workforce challenges: evidence continues to accumulate on the effectiveness of nonphysician clinicians in delivering emergency obstetric care services in remote and rural areas (such as in Tanzania);²⁹ countries such as Kenya are establishing bilateral agreements with other countries in the region to collaborate on health workforce training and promote circular migration of health workers;³⁰ research is being conducted in a variety of settings from Ghana³¹ to Lao People's Democratic Republic (discrete choice experiments)³² on the incentives most likely to improve health workforce deployment and retention.

Malawi has implemented an innovative emergency human resources programme that includes task-shifting approaches to enhance training, deployment and retention of health workers (box 16 later in the report). The initiative is credited with saving more than 13,000 lives, estimated using the Lives Saved Tool and based on increases in coverage between 2004 and 2009 in antenatal care, skilled attendant at birth, prevention of mother-to-child transmission of HIV and vaccinations.³³ Continuing investment will be critical to sustain these gains.

By contrast, recent evidence shows that external assistance for human resources for health from leading global health initiatives is only partly aligned with national health workforce development priorities.³⁴

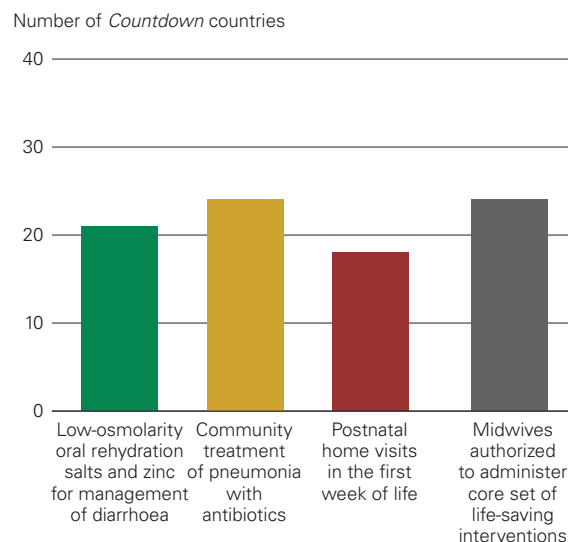
Financial resources for reproductive, maternal, newborn and child health in Countdown countries

Policymakers need financial information to make informed decisions on setting priorities, efficiently allocating resources among competing health care needs and ensuring sustainable funding for programmes. There are three main sources of funding for reproductive, maternal, newborn and child health in *Countdown* countries: government expenditures, external expenditures (resources provided by development partners as official development assistance) and private spending (of which out-of-pocket expenditure is typically the largest component).

Looking ahead: adopting policies to scale up effective interventions in Sub-Saharan Africa

Many of the 40 *Countdown* countries in Sub-Saharan Africa are adopting reproductive, maternal, newborn and child health policies to address challenges arising from weak health systems by authorizing task shifting and community based delivery strategies. Community health workers are now authorized to manage pneumonia in 24 countries and to conduct postnatal home visits in the first week of life in 18 countries (see figure). Midwives in 24 countries are authorized to administer a core set of lifesaving interventions during and after childbirth that were previously limited to more highly trained cadres such as doctors (see annex C for a list of these interventions). Although these findings are encouraging, policies are still not in place for about half of *Countdown* countries in the region. Only five countries (Ethiopia, Ghana, Malawi, Rwanda and Senegal) have adopted all four policies, signalling a clear need for advocacy efforts to generate greater political commitment to reproductive, maternal, newborn and child health in the region.

Status of four key reproductive, maternal, newborn and child policies in Sub-Saharan Africa



Source: See annexes A and C.

The financial picture: paying for reproductive, maternal, newborn and child health services

Median per capita health expenditure in 68 *Countdown* countries with available data is \$104 (in 2010 international dollars), including expenditure funded by external sources (figure 17),³⁵ up from \$80 in 2007. Government health expenditure as a share of total government expenditure is less than 10% in more than 40 *Countdown* countries and has not changed across *Countdown* countries since 2007,³⁶ with those in Latin America and the Caribbean and West and Central Africa generally showing decreases. Out-of-pocket expenditures account for less than 15% of total health expenditure in just 5 countries, indicating that many households in *Countdown* countries are at increased risk of financial catastrophe and impoverishment due to health care costs.³⁷

Governments can increase access and reduce financial barriers for reproductive, maternal, newborn and child health services through pro-poor legislation (for example, expanding fully or partially subsidized prepayment schemes, removing user fees and other financial barriers to access, instituting conditional cash transfer schemes, creating universal health systems and the like) and adequate

funding for reproductive, maternal, newborn and child health, including from domestic resources.³⁸

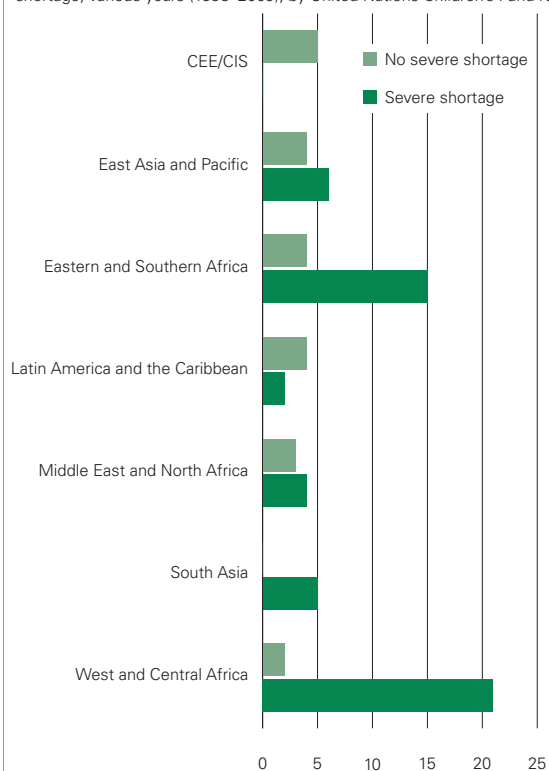
Many *Countdown* countries have introduced reforms and new financing mechanisms to improve service access and financial risk protection. For example, Ghana made maternal health services in accredited facilities free starting in 2008.³⁹ Vietnam exempted fees for services for poor mothers in 2003 and for children in 2009.⁴⁰ Both countries also introduced large scale prepayment schemes that emphasize cross-subsidization between different populations to reduce out-of-pocket payments and augment funding for improving the quality and availability of health services, including reproductive, maternal, newborn and child health services. These examples show how women and children can benefit directly from government commitment to achieving universal coverage.

The Commission on Information and Accountability for Women's and Children's Health's (2011) *Keeping Promises, Measuring Results* highlighted the importance of tracking domestic expenditure on reproductive, maternal, newborn and child health. For many *Countdown* countries domestic spending exceeds official development

FIGURE 16

African countries are experiencing a severe health workforce shortage

Number of 74 *Countdown* countries with data that have a severe health workforce shortage, various years (1998–2009), by United Nations Children's Fund region



Note: A severe health workforce shortage is defined as an aggregate density of physicians, nurses and midwives below 2.3 per 1,000 people.

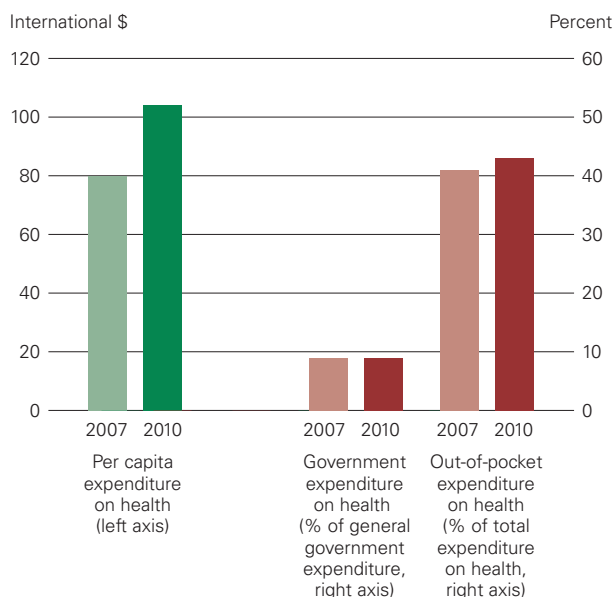
Source: World Health Organization Global Health Workforce Statistics, 2011 Update (<http://apps.who.int/globalatlas/>).

assistance flows, especially when out-of-pocket expenditures are considered. Recent evidence on domestic spending on reproductive, maternal, newborn and child health in many *Countdown* countries is not readily available, however, and comparisons across large numbers of countries are still not possible. Several international agencies, including WHO and UNFPA, are working with countries to develop such evidence in different regions. *Countdown* is working with its partners to support countries and the international community in improving the tracking of both external and domestic resources for maternal, newborn and child health as part of the Accountability Agenda follow-up process. *Countdown* is committed to helping building the capacity of countries to estimate and use indicators of per

FIGURE 17

National resources invested in reproductive, maternal, newborn and child health

Financing indicators, median *Countdown* countries with data



Source: See annexes A and C.

capita expenditure on total health and maternal, newborn and child health expenditures by source of financing to accelerate progress towards Millennium Development Goals 4 and 5.

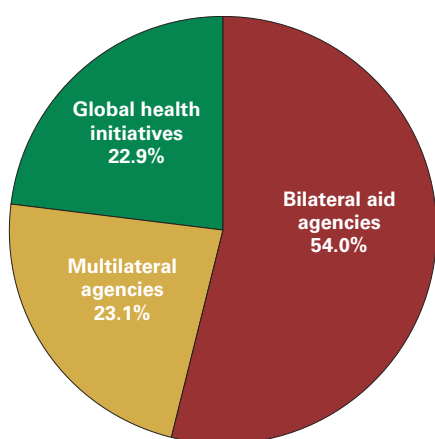
Countdown data on official development assistance to maternal, newborn and child health goes back to 2003,⁴¹ and this report presents updated data for 2009. *Countdown* expects to release data for 2010 and a new analysis of official development assistance for reproductive health later in 2012. Monitoring official development assistance supports evidence-based decisionmaking and strengthens accountability for commitments by development partners to maternal, newborn and child health. Data on actual spending provide a benchmark of the financial resources available and can be used to estimate the additional investments required to achieve Millennium Development Goals 4 and 5. Breakdowns of official development assistance by source and recipient that highlight whether funds are being allocated to the countries most in need of external support can improve allocation and efficient use (box 12). More detailed analyses, such as by programme (for example, malaria) or recipient group (for example, newborns), have been undertaken and are needed for accountability. These analyses rely on the quality

Official development assistance flows for maternal, newborn and child health

From whom?

In 2009 the United States was the largest source of official development assistance for maternal, newborn and child health, followed by the Global Fund to Fight AIDS, Tuberculosis and Malaria and the International Development Association of the World Bank (see figure 1).

Figure 1. Official development assistance for maternal, newborn and child health was \$4.5 billion in 2009

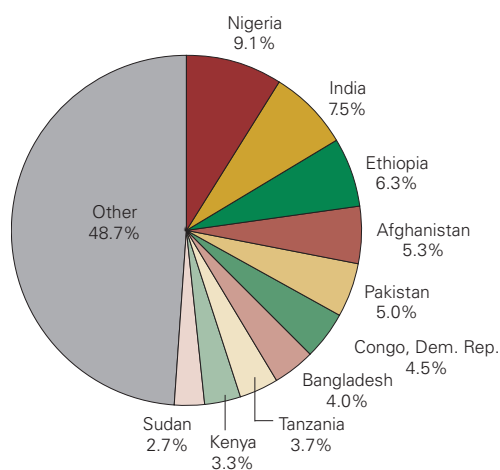


Source: Creditor Reporting System Aid Activities Database of the Organisation for Economic Co-operation and Development Development Assistance Committee.

To whom?

In 2009 approximately three-quarters of official development assistance for maternal, newborn and child health went to the 75 *Countdown* countries, with Nigeria and India receiving the most (see figure 2). The amount varies widely across countries and is not always in proportion to need. Total official development assistance has been concentrated in Sub-Saharan Africa and South Asia, especially in countries with large numbers of mothers and children.

Figure 2. Ten countries received more than 50% of official development assistance for maternal, newborn and child health in 2009



Source: Creditor Reporting System Aid Activities Database of the Organisation for Economic Co-operation and Development Development Assistance Committee.

of donor reporting, suggesting that greater specificity in official development assistance tracking depends on improving and adhering to donor reporting mechanisms. For example, a recent analysis found that only 0.1% of total official development assistance for maternal, newborn and child health was used for projects whose description explicitly mentioned interventions to reduce neonatal deaths. The lack of specificity in official development assistance reporting makes it unclear whether this finding indicates a need for improvement in project descriptions, for increases in official development assistance for neonatal interventions or for a combination of both.

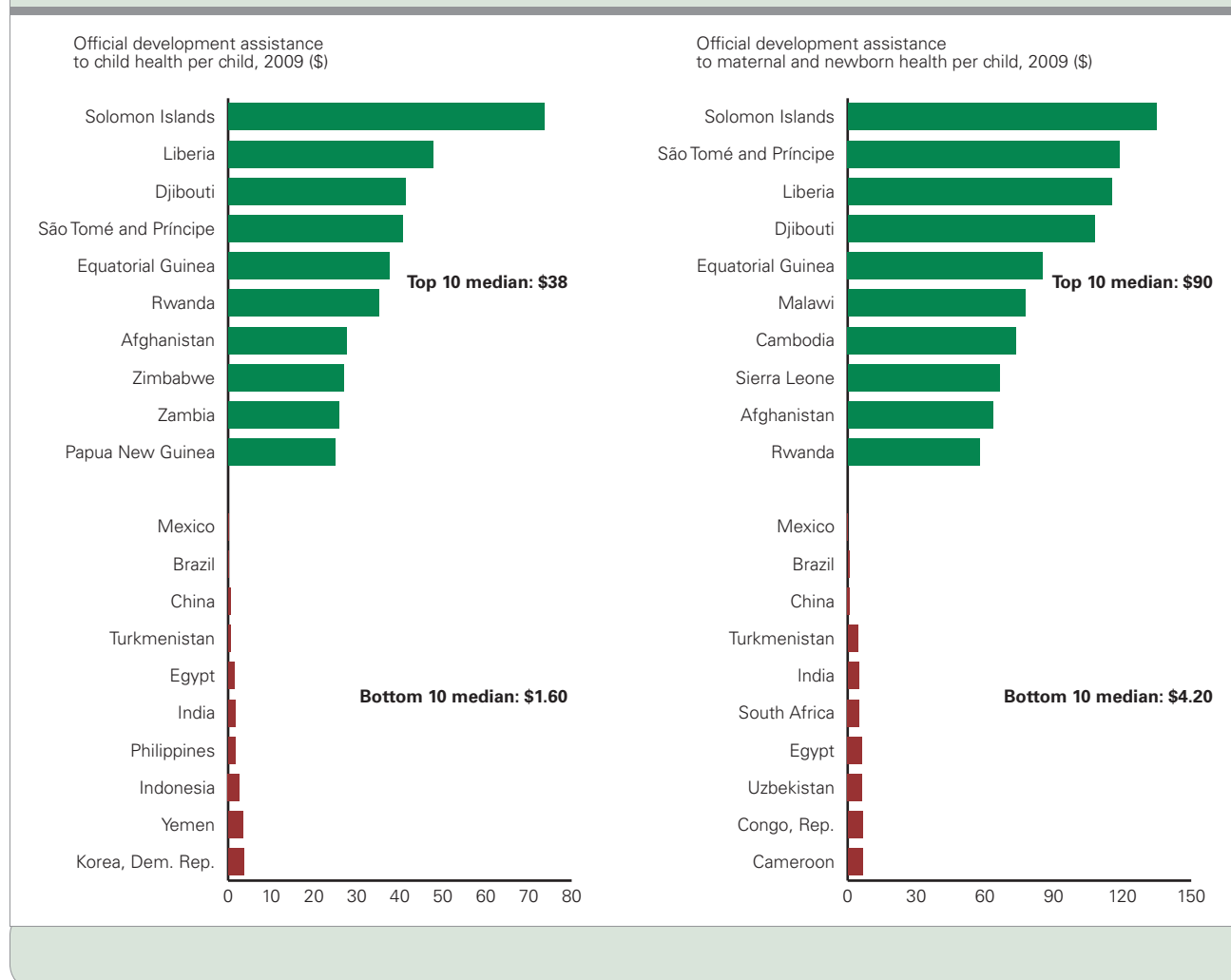
Official development assistance for maternal, newborn and child health in *Countdown* countries has increased steadily over the past decade and accounted for about 40% of official development assistance to health in 2009. The 2009 data suggest that the rate of increase is levelling off. Total official development assistance to maternal, newborn and child health for *Countdown* countries was \$4.51 billion in 2009, of which \$3.15 billion (69.8%) went to child health and \$1.36 billion (30.2%) went to maternal, neonatal and newborn health, up 14.1% in real terms from 2008. Compare this with increases of 17.1% from 2006 to 2007 and 21.2% from 2007 to 2008.

Official development assistance for child and maternal and newborn health varies widely across *Countdown* countries, even after adjusting for the size of the vulnerable population. For example, in 2009 official development assistance per child ages 0–5 averaged \$1.60 for the 10 countries receiving the least official development assistance and \$38 for the 10 countries receiving the most (figure 18). Similarly, for maternal and newborn health the average was \$4.18 per live birth for the 10 countries receiving the least official development assistance and \$90 per live birth for the 10 countries receiving the most. Of the 10 countries that receive the most official development assistance for child health, 7 are also among the 10 countries that receive the most official development assistance for maternal and newborn health; 6 countries are among the 10 countries that receive the least official development assistance for both child health and maternal and newborn health.

Assessing the targeting of official development assistance relative to need reveals that factors other than need influence allocations to countries (see figure 18). More-populated *Countdown* countries often received more official development assistance for maternal, newborn and child health in absolute terms. When adjusted for the size of the vulnerable populations, however, received funds show a different picture. For example, in 2009 India received the third most official development assistance for child health in absolute terms, but the amount received per child ages 0–5 was \$1.58, compared with \$12.28 in Nigeria and \$17.88 in Ethiopia, the two recipients of the most official development assistance for child health in absolute terms. For maternal and newborn health India received the most official development assistance in absolute terms but only \$4.89 per live birth, compared with \$14.24 in Nigeria, which received the second most official development assistance

FIGURE 18

Resource profiling: *Countdown* countries receiving the most and least official development assistance



for maternal and newborn health, and \$27.24 per live birth in Ethiopia, which received the fourth most. Afghanistan received the third most official development assistance, or nearly \$63.40 per live birth. These examples show that absolute values alone do not accurately portray how official development assistance flows benefit individual mothers, newborns and children in *Countdown* countries, a situation complicated by important subnational inequities by urban-rural location, region of the country and socioeconomic groups.

Context matters: coverage and mortality change in the real world

Changes in the coverage of essential interventions happen within specific political, social, economic, epidemiological and environmental contexts (see figure 1). Many contextual factors are modifiable and reflect current unfair and avoidable health and other inequities within and between countries. Poverty and poor environmental conditions, for example, place families at higher risk of mortality

BOX 13

Conflict threatens the health of women and children

Conflict is a major threat to reproductive, maternal, newborn and child health. War affects not only the people in the countries directly involved, but also the people in neighbouring countries due to displacement and movement across borders. Armed and violent conflict can severely impair country ability to deliver basic health and other services.

The Uppsala Conflict Data Program¹ uses a definition of conflict as the use of armed force between two parties, at least one of which is the government of a state, resulting in at least 25 battle-related deaths to determine conflict status. The results for 1991–2000 and 2001–2010 indicate that of 58 *Countdown* countries:

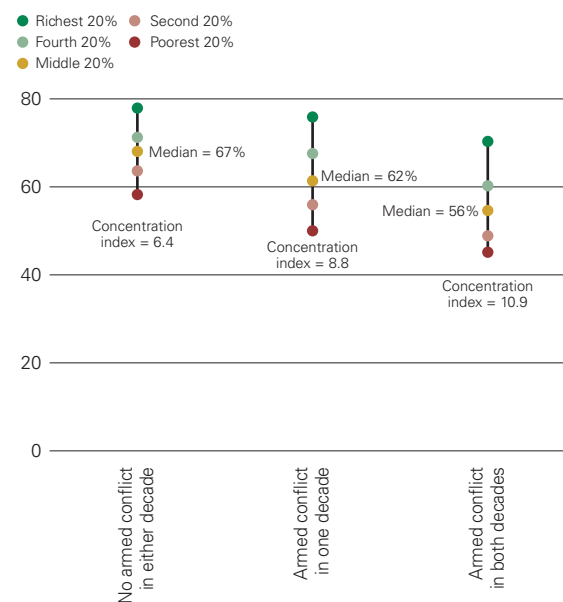
- 21 had no conflict in either decade.
- 12 had one or more conflicts in one of the two decades.
- 25 had at least one conflict in both decades.

Countdown has used these data to investigate the relationship between conflict and country progress in achieving high and equitable coverage of proven interventions (as measured by the composite coverage index; see section on coverage). The figure shows both the median composite coverage score for groups of countries with no conflict, conflict in one decade and conflict in both decades as well as median scores for countries in each group on the concentration index, a widely used measure of inequity. Higher concentration index scores indicate greater inequity. Conflict is associated not only with lower coverage, but also with greater socioeconomic inequities in coverage. Longer conflicts (for example, those longer than two decades) may have compound negative effects on coverage and equity. In addition, average child mortality in 2010 was higher in countries with conflict during the two previous

decades (99 deaths per 1,000 live births) than in countries with conflict during one

Conflict prevents progress in achieving high and equitable coverage

Composite coverage index, by wealth quintile, concentration index and armed conflict status, 55 countries with available data (%)



Source: Uppsala University, Uppsala Conflict Data Program, www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/.

of the two decades (93 deaths per 1,000 live births). Countries without conflict had the lowest under-five mortality rate (70 deaths per 1,000 live births).

Note

1. www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/.

through reduced ability to pay for health care services and increased exposure to inadequate housing, water and sanitation, food supplies, education and employment opportunities. Conditions of poverty can be compounded by natural disasters, conflict and other emergencies that destroy or increase pressure on already weak health care infrastructure and displace people (box 13). Gender discrimination and other societal factors such as early age at marriage and childbearing can also contribute to poor maternal, newborn and child health outcomes.

A range of cross-sectoral measures are available to remedy broader contextual challenges to progress. Expanding access to education, introducing gender-based affirmative action policies, adopting a human rights framework and adopting efforts to improve living and working conditions such as water and sanitation supplies (box 14) can all make a difference. Political commitment to reproductive, maternal, newborn

and child health and strong leadership are also critical to ensuring access to care.

Other contextual factors that play a role in maternal and child health and nutrition include education, environmental factors, such as water and sanitation, pollution and climate. *Countdown* maintains data on coverage of water and sanitation (see box 14) but does not have direct indicators of the potential effects of education, pollution or climate change at present. *Countdown* recognizes their importance for the futures of women and children.⁴²

It is notable that some countries—such as Pakistan (box 15)—have been able to maintain and even strengthen reproductive, maternal, newborn and child health programmes despite important contextual disruptions and challenges. In some situations the breakdown of existing systems can even provide an opportunity to create new and more supportive policies and programmes for women and children.

BOX 14

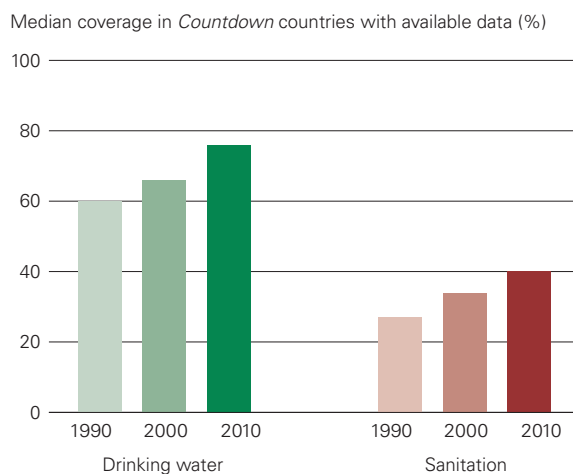
Water and sanitation: countries reach targets!

Good news! Median coverage of improved sources of drinking water in *Countdown* countries increased from 60% in 1990 to 76% in 2010 (see figure). Of 69 *Countdown* countries with available trend data, 23 have met the Millennium Development Goal target on proportion of the population using an improved drinking water source, and 16 are on track. However, 24 countries are not on track, and 6 are making insufficient progress. Coverage continues to be much higher in urban areas than in rural areas: in the 72 *Countdown* countries with available disaggregated data for 2010, median coverage was 91% in urban areas compared with 64% in rural areas.

Median coverage of improved sanitation facilities remains low across *Countdown* countries but has increased markedly, from 27% in 1990 to 40% in 2010 (see figure). Ten countries have achieved the Millennium Development Goal target on the proportion of the population using an improved sanitation facility, and ten are on track. But the majority are not on track (47 countries) or are making insufficient progress (3 countries). Urban-rural inequities in coverage of improved sanitation facilities are also pronounced. In 72 *Countdown* countries with available disaggregated data for 2010, median coverage was 55% in urban areas compared with 31% in rural areas.

These data show that it is possible for *Countdown* countries to achieve rapid gains in coverage of improved water sources and sanitation facilities. Countries need to continue efforts to reach households in rural and other underserved areas and to concentrate on scaling up access to improved sanitation facilities.

Coverage of improved drinking water sources and sanitation facilities has improved since 1990



Source: WHO and UNICEF Joint Monitoring Programme on Water Supply and Sanitation 2012.

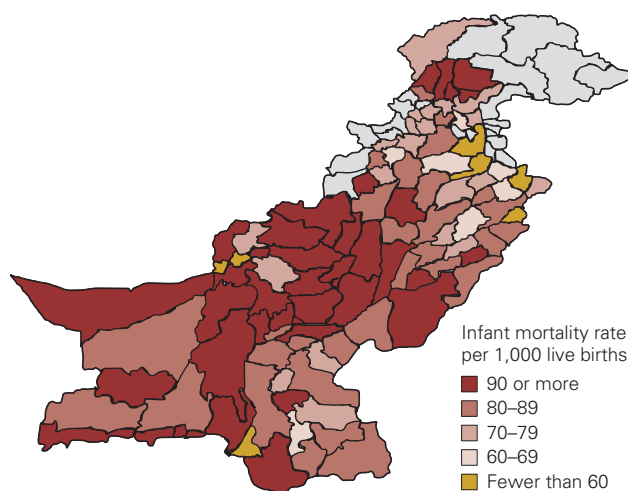
BOX 15**Pakistan: delivering services under pressure**

Pakistan lies at the centre of one of the most volatile geopolitical regions of the world. In its 65 year history the country has experienced three military coups and three full-scale wars with India, the most recent of which occurred in 1971 and ended in the breakup of the country into the current Pakistan and Bangladesh. The debilitating Afghan wars following the Russian invasion of 1979 and the U.S.-led invasion of 2001 have resulted in smouldering conflict and insurgency in the northwest and the federally administered tribal areas. Pakistan's population has grown from 27 million at the time of independence in 1947 to an estimated 187 million people in 2011, a third (36.7%) of whom are under age 14. Pakistan has hosted millions of Afghan refugees over the last three decades and endured major humanitarian emergencies in recent years, including an earthquake (2005) and massive floods (2010 and 2011).

Progress in maternal, newborn and child health indicators in Pakistan has been insufficient to reach the Millennium Development Goals (see table 1 in the main text). There is considerable variation across provinces and the federally administered tribal areas in resources, access to services and development. The most recent Demographic and Health Survey (2006–07) did not have province-level specificity, but information from a series of provincial level surveys suggests huge differentials in infant mortality between districts (see map). Despite the country's agrarian economy, a 2011 national nutrition survey suggests that a quarter to a third of households are moderate to severely food insecure and that rates of anaemia among women of reproductive age and of child stunting and wasting have remained static over the last three decades. Findings from the 2006–07 Demographic and Health Survey also indicate that despite some reduction in post-neonatal infant and child mortality since 1991, the number of newborn deaths has remained largely unchanged, and they now account for half of child deaths. Some 57% of neonatal deaths occurred within the first 72 hours after birth; the vast majority were within the first 24 hours. Coverage of many reproductive, maternal, newborn and child health interventions remain unacceptably low, as shown in the country profile. The composite coverage index, an average of eight essential reproductive, maternal, newborn and child health interventions, is only 56% for the country as a whole, with huge differentials between the poorest

and richest subgroups (see figure). Insufficient vaccination coverage makes Pakistan one of the last three countries to have reported endemic polio, with 198 cases in 2011.

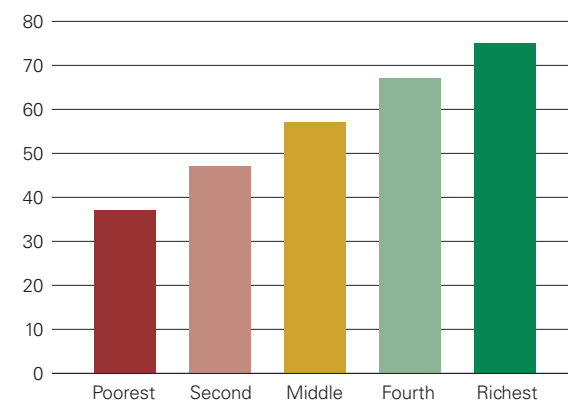
Subnational variations in infant mortality illustrate diversity



Source: Pakistan Multiple Indicator Cluster Surveys.

High socioeconomic inequity in coverage of interventions for maternal, newborn and child health in Pakistan

Composite coverage indicator by wealth quintile, Pakistan, 2005–06



Source: Pakistan Demographic and Health Surveys 2005–06.

The recent disbandment of the federal health ministry following the 18th constitutional amendment has placed a huge responsibility on provinces for planning and action on public health, especially reproductive,

(continued)

Pakistan: delivering services under pressure

maternal, newborn and child health. Despite opportunities for concerted action, challenges of governance, oversight and implementation of evidence-based policies remain. There may also be opportunities to integrate services at all levels—for example, in family planning and health, under separate ministries. A recent assessment of provincial strategies for reproductive, maternal, newborn and child health underscored the unique opportunities for implementing evidence-based intervention packages across the continuum of care. Recent estimates suggest, for example, that

implementing targeted packages at scale through the Lady Health Workers programme linked to first- and second-level facilities could reduce under-five mortality 57% over the next few years, especially among the poorest quintiles and rural populations.¹ Other estimates indicate that full coverage of interventions could reduce newborn deaths by 84% and stillbirths by 59%.

Note

1. Khan and others forthcoming.

The bottom line: coverage gains but no room for complacency

In summary, the 2012 *Countdown* results on coverage are encouraging—and show that progress is possible! Some countries are setting an example of what can be achieved – for one or two interventions, or better yet for multiple interventions across the continuum of care and requiring functioning health systems. But much remains to be done, not only before 2015 but in

the years that follow. Coverage is still much too low for interventions that require 24 hour access to trained health personnel; efforts to deliver these interventions at the community level are expected to increase rapidly in the next few years. Equity in coverage remains a challenge for many countries, and quality is only now beginning to receive the attention it deserves. The next section of the report builds on these findings to examine the kinds of progress needed to prevent unnecessary deaths among women and children.



Milestones of progress on the path to success



Many interrelated factors contribute to or detract from country ability to expand coverage of essential services to women, newborns and children and achieve Millennium Development Goals 4 and 5. Assessing country progress requires looking at and beyond the numbers to identify the actions needed for success.

Results matter. Countries and their development partners need to regularly take stock of how well they are increasing equitable coverage, improving nutrition and decreasing mortality and morbidity. These changes do not occur in a vacuum, and understanding how and why they occur is essential for sustaining and bringing improvements to scale. The country profiles in this report can be a starting point for critical questions about what a country is doing well and where more effort is needed.

This section examines four types of success: ensuring that all determinants of coverage are in place to make possible high coverage with lifesaving interventions, assessing whether inequities in coverage are being reduced, identifying and promoting effective interventions and ensuring that these interventions are delivered with high quality.

An essential step is to carry out in-depth country case studies so that lessons learned can be shared and adapted to other settings (box 16).

Equity matters!

A second avenue for assessing country progress, and one highlighted in the Commission on Information and Accountability for Women's and Children's Health (2011) report *Keeping Promises, Measuring Results* is determining how well countries are decreasing inequities and reaching the most vulnerable population groups (box 17).

Better evidence of what works

Accountability depends on good data. Countries need regularly available, high-quality data for

routine programme management as well as for monitoring and evaluation. Many *Countdown* countries are establishing the foundations of a sound health information system—a supportive policy and legal framework, a comprehensive national health plan, well designed coordination and oversight mechanisms, and sufficient human and financial inputs. Investment is needed to improve national capacity to measure and report on core coverage, equity, policy, health systems and financing indicators through an optimal combination of household surveys, facility reports, censuses, vital registration systems, national health accounts and other essential sources of data. Equal attention is needed to develop the capacity of decisionmakers to act on available evidence by allocating resources according to need and by strengthening policy and programme implementation.

Better measurement of core indicators is critical both to improve data quality and to support countries in using evidence effectively to make decisions. Many technical groups are working to improve the measurement of coverage and mortality, including the Child Health Epidemiology Reference Group and interagency reference groups such as the Maternal Mortality Estimation Interagency Group and the Malaria Monitoring and Evaluation Reference Group.

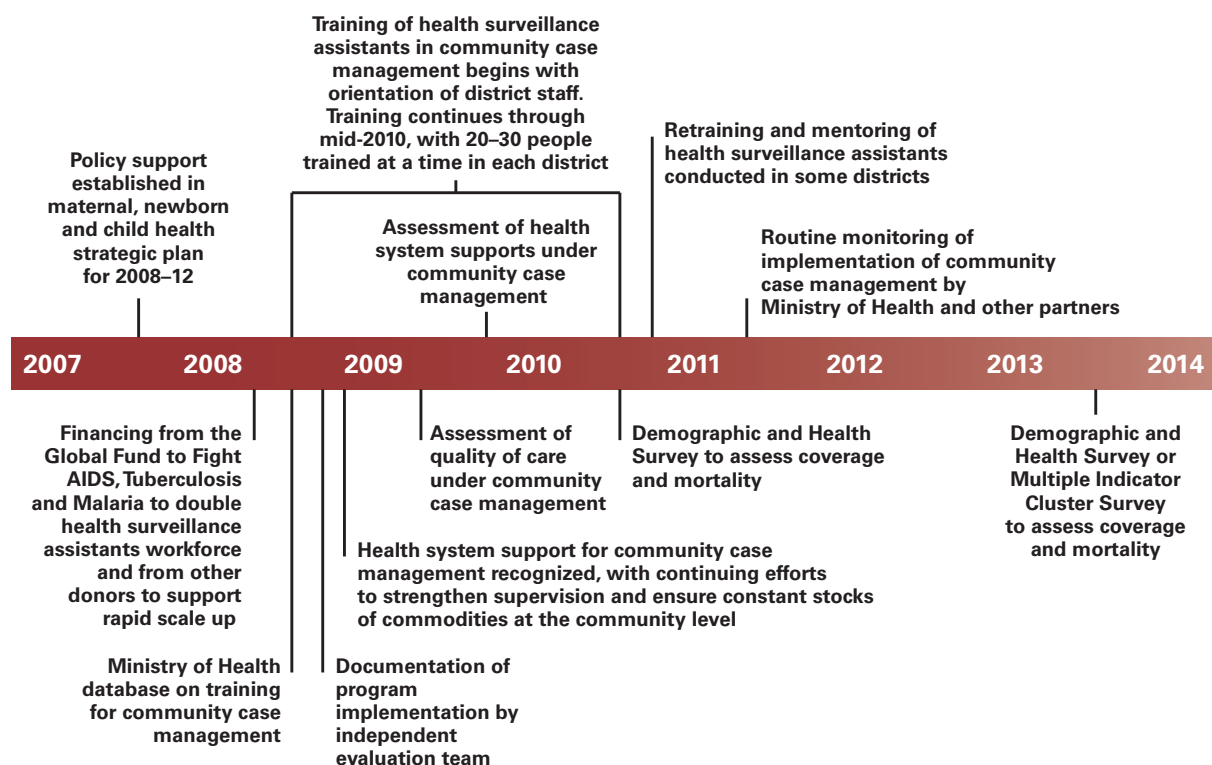
The scientific community has a responsibility to continue advancing the knowledge base on what works and on how to deliver what works in different contexts. A joint PMNCH, WHO and Aga Khan University (2011) report, *Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, Newborn, and Child Health*, compiled and reviewed the evidence needed to reach consensus on the basic packages of reproductive, maternal, newborn and child health services for delivery at each level of the health system (community, first level/ outreach and referral) across the continuum of care.⁴³ The report recommends 56 essential interventions to be scaled up as basic service packages at national level (annex D), identifies research gaps in the

The Countdown model at the country level: community case management of childhood illness in Malawi

Countdown focuses not only on coverage, but also on the policy, health systems and financial determinants of coverage (see figure 1 in the main text). The evolution of integrated community case management of childhood pneumonia, diarrhoea and malaria in Malawi illustrates the importance of all these factors

and the role that monitoring and evaluation can play in shaping country programmes. Figure 1 shows the timeline of community case management introduction in Malawi; key milestones and the sources of evidence used by the Ministry of Health and its partners to strengthen the programme are highlighted below.

Figure 1. Timeline for implementation and monitoring and evaluation of community case management in Malawi



Policy

The Malawi Health Sector Reform Program of Work for 2004–10 identified community health workers (health surveillance assistants) as a cornerstone of the health system. Salaried members of the health workforce in place for 20 years, health surveillance assistants were given a broader role in delivering primary care services, including treatment of common childhood illness at community level, in the 2008–12 plan.¹ In 2009 the Ministry of Health adopted national guidelines and training materials for integrated community management of childhood illness.² This served as the

basis for a rapid scale-up of functional village health clinics in hard-to-reach areas, with trained health surveillance assistants able to assess sick children, refer those with signs of serious illness and treat diarrhoea, malaria and pneumonia.

Financing

A 2008 grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria enabled the government to double (to 10,000) the size of the health surveillance assistant workforce. Development partners agreed to support implementation of community case

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The Countdown model at the country level: community case management of childhood illness in Malawi

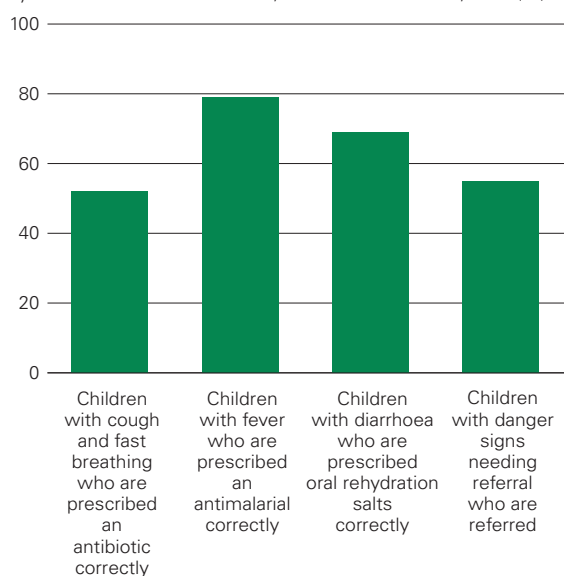
management, under Ministry of Health direction, in all 28 districts.

Quality of care provided by community case management-trained workers

In 2009, shortly after the initial rollout of community case management training in selected districts, the Ministry of Health requested an assessment of the quality of care being provided by the health surveillance assistants.³ The results showed that 63% of children with confirmed fever, cough with fast breathing or diarrhoea were treated correctly (figure 2), close to levels of correct treatment in previous studies in similar settings. Inadequate drug stocks contributed to inappropriate treatment of children presenting with fever and diarrhoea (figure 3). The study identified the most common errors in assessment and treatment, and the Ministry of Health used these findings as a basis for strengthening supervision systems and reinforcing areas of performance weakness in retraining and mentoring programmes.

Figure 2. Treatment of sick children by community case management-trained health surveillance assistants in six districts in Malawi

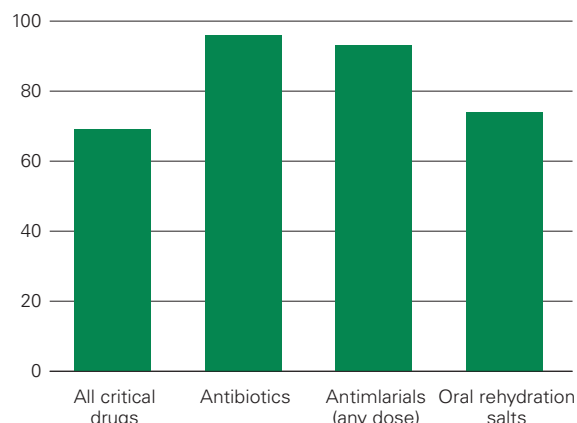
Children for whom specific case management tasks were performed by health surveillance assistants, six districts in Malawi, 2009 (%)



Source: Nsona and others 2011.

Figure 3. Drug availability varies by type

Health surveillance assistants with drugs available on the day of the survey, six districts in Malawi, 2009 (%)



Source: Nsona and others 2011.

Health system supports

A companion assessment of health systems support⁴ and a qualitative study of perceptions about community case management by health surveillance assistants and district health managers⁵ provided further inputs to ongoing planning. The findings were positive, but the assessments revealed problems with supervision and drug supply. In response to these findings, district managers developed innovative solutions, including training new cadres of supervisors and introducing innovative methods to complement supervision with refresher training and mentoring. For drugs, a new system of tracking community case management commodities was established.

Context matters!

Reproductive, maternal, newborn and child health programmes are affected by the broader environment, including the political, economic, social, technological and environmental factors that affect the strength of implementation and effectiveness of interventions. In Malawi a severe fuel shortage since 2008 has had important negative consequences for the community case management programme—limiting travel for health surveillance assistants and supervisors, slowing the delivery of drugs and contributing to power outages and an economic downturn.⁶

(continued)

BOX 16 (CONTINUED)

The *Countdown* model at the country level: community case management of childhood illness in Malawi

Monitoring and evaluation as tools in effective programme management

The Malawi community case management programme has effectively used monitoring and evaluation, including routine tracking of programme activities and periodic assessments and surveys, to establish a process of continuous programme improvement. The policy foundation for community case management, coupled with adequate financing and attention to health systems supports, has supported a strong initial rollout. The results of these efforts (and the potential negative effects of the fuel

crisis) will be measured in a national household survey planned for mid-2013 to measure the proportions of children under age 5 with fever or malaria, presumed pneumonia and diarrhoea who receive lifesaving treatment.

Notes

1. Malawi Ministry of Health 2007.
2. Government of Malawi, WHO and UNICEF 2008.
3. Nsona 2011.
4. Callaghan 2011.
5. Callaghan-Koru and others forthcoming.
6. Malawi Energy Regulatory Authority n.d.

BOX 17

Success means reaching the poor

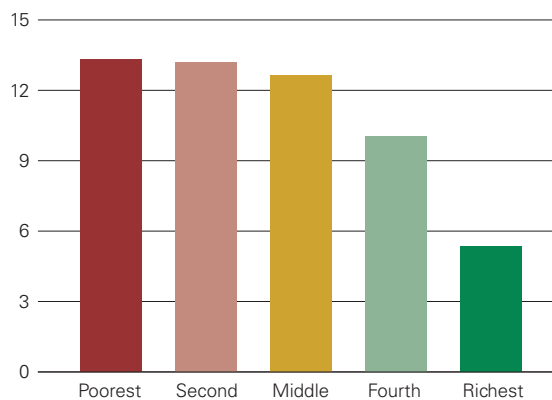
An examination of changes in equity of coverage over time in 28 *Countdown* countries with at least two surveys since 2000 (with a median of five years between surveys) that had data by wealth quintile found that the 11 countries with rapid change (an increase of 7 percentage points or more between surveys) in the composite coverage index were particularly successful at improving coverage among the poorest (see figure). This was not the case for countries with moderate (an increase of 2–6.9 percentage points between surveys) or no change (an increase of less than 2 percentage points). It could be argued that women and children in the wealthiest quintile in the rapid change group had already reached such high coverage that no further increases were possible, but this was not true because average coverage in the first survey was 72%, leaving substantial room for increase.

These findings yield an important policy message: increasing coverage at the national level depends on

how well the poorest groups in the population are being reached.

Increasing coverage at the national level requires targeting the poorest groups

Change in composite coverage index, by wealth quintile, 11 *Countdown* countries with the fastest coverage gains since 2000 (percentage points)



Source: Demographic and Health Surveys and Multiple Indicator Cluster Surveys.

content of the basic service packages and serves as an important starting point for helping countries prioritize specific interventions and service delivery strategies (based on their current disease burden and health system functionality). A companion report on the essential supportive policies required for scaling up these essential interventions is under preparation.

Progress in perspective: increasing the quality of services delivered

Countdown recognizes that coverage gains will translate into improved maternal, newborn and child health only if services are delivered at a

level of quality that will lead to impact (box 18). *Countdown* is expanding its efforts to examine the health system and other factors related to quality of care and will include more reporting on service quality in future publications.

There are different components of success, all of which are equally important: ensuring that policies and programmes are in place and being implemented, promoting equity in coverage, identifying and disseminating cost-effective interventions and ensuring that they are delivered with high quality.

BOX 18

Quality counts!

Increasing intervention coverage is important, but will result in mortality reduction only if interventions are delivered at adequate levels of quality. At the country level monitoring service quality is an essential part of program management. Standard indicators of quality and feasible measurement methods are needed to support these efforts.

WHO and partners have been working on indicators of the quality of care in maternal, newborn and child health services at the facility level. These indicators are intended for routine measurement, with the results used to improve services. The indicators cover health service readiness, audits, interventions actually received (for example, during family planning consultations, antenatal care visits, labour and childbirth and postnatal care visits) and other measures of service quality, including:

- Availability of trained personnel.
- Availability of essential drugs and commodities (such as vaccines, antibiotics, oxytocin, syphilis and HIV tests, rapid malaria tests, oral rehydration solutions and the like).
- Interventions received by women and children (such as oxytocin for women in the third stage of labour to prevent haemorrhage and oral rehydration solutions and zinc for children with diarrhoea and dehydration).
- Maternal (and where feasible, perinatal) death reviews.
- Other indicators of quality of care (such as the fresh stillbirth¹ rate).
- Maternal or parent satisfaction with services received.

Standard methods for assessing the quality of Integrated Management of Childhood Illness in health facilities have been available for many years and are used by countries

to monitor progress and improve programmes.² Figure 1 compares results on the performance of first-level health workers in conducting an integrated assessment of the sick child, using a summary index based on 10 assessment tasks that health workers should complete for every child under age 5 who presents for care.³ These and similar results are used by ministries of health and their partners to improve the effectiveness of their Integrated Management of Childhood Illness training and supervision. Methods have also been developed to assess the quality of child health care delivered at the community level as a part of the Catalytic Initiative to Save a Million Lives, an international partnership aimed at strengthening health systems to accelerate progress towards Millennium Development Goals 4 and 5. The tools have been used in Ethiopia and Malawi (see box 16) and are available for adaptation and use in other settings.⁴

More recently, methods have been developed to assess the quality of care during pregnancy and around the time of childbirth. Facility surveys conducted in representative samples of health facilities in Ethiopia, Kenya, Madagascar, Rwanda and Tanzania (mainland and Zanzibar) with support from the USAID-supported Maternal and Child Health Integrated Program assessed various indicators (figure 2).⁵ The results are being used by the ministries of health in these countries and their partners to improve the supply chains for essential drugs and commodities.

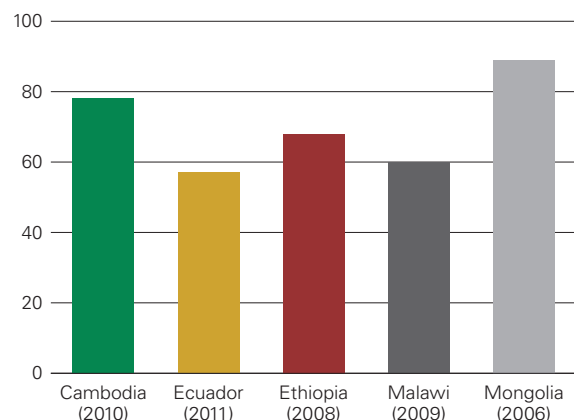
Countdown will continue to participate in efforts to improve measurement of quality of care indicators and to develop feasible, routine measurement methods that produce results representative of services received by the population.

(continued)

Quality counts!

Figure 1. Assessing the quality of child health care using Integrated Management of Childhood Illness health facility surveys

Index of integrated assessment of sick children under age 5 presenting for care at public health facilities (%)

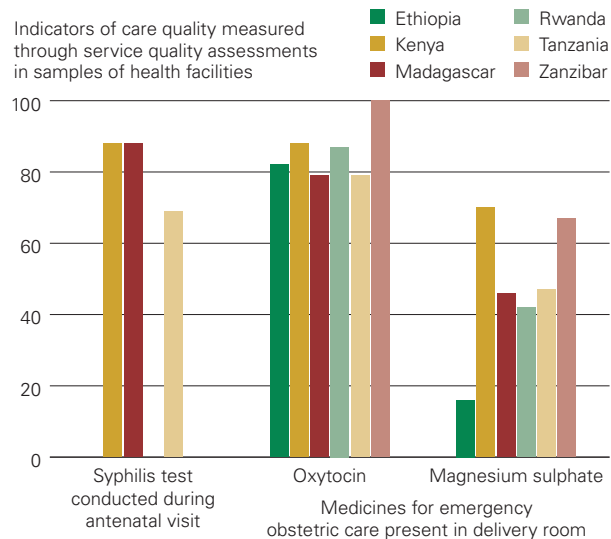


Notes

1. A fresh stillbirth is a death that occurs immediately before or during labour or childbirth.
2. www.who.int/imci-mce/Methods/HF_survey.htm
3. Health facility surveys to assess the quality of care delivered to children first-level facilities conducted by ministries of health in collaboration with UNICEF, WHO and selected partners, 2006–11.

Figure 2. Quality of care indicators for services during pregnancy and childbirth

Indicators of care quality measured through service quality assessments in samples of health facilities



Note: The indicators shown here are those for which data were available for at least three countries. They do not represent the full spectrum of quality measures.

4. See www.jhsph.edu/dept/ih/IIP/projects/catalyticinitiative.html for a report on the application in Malawi and the survey protocols and tools.
5. www.mchip.net/resources and www.mchip.net/QoCMCHIPsurveys.

Accountability now for Millennium Development Goals 4 and 5



Many lives are being saved in *Countdown* countries through increased access to effective, high-quality health services, nutrient-rich foods and improved water and sanitation facilities. However, the data show that more progress is needed. Progress depends on everyone—governments, development partners, public health researchers, professional societies, nongovernmental organizations, communities, the media and the private sector—working together to fulfil our commitments to women and children.

Accountability requires action. Together success can be achieved by making the following actions a reality:

Invest in saving women's and children's lives.

- Advocate for increased funding for reproductive, maternal, newborn and child health at the global and national levels and support efforts to track and monitor funding.
- Make sure that global and national financing mechanisms support increased access to essential interventions and elimination of coverage gaps and inequities.
- Encourage alignment and harmonization by strengthening links across health financing mechanisms as called for by the Global Strategy for Women's and Children's Health, the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action.
- Develop national and local strategies to reduce out-of-pocket spending for health.
- Support research to fill knowledge gaps on what works to improve maternal, newborn, and child survival and reduce stillbirths and preterm births.

Implement strategies to increase evidence-based decisionmaking.

- Strengthen global and national processes for using available data for setting priorities, targeting and planning as well as monitoring and evaluation of policies and programmes.
- Strengthen civil registration, vital statistics and routine health information systems, including periodic household surveys.
- Monitor inequities in coverage and quality of essential reproductive, maternal, newborn and child health interventions within and between countries and develop locally appropriate strategies to address them.

Implement laws and policies to promote universal coverage.

- Identify and implement solutions for gaps in the laws and policies needed to support the equitable delivery of essential reproductive, maternal, newborn and child health interventions.

Innovate to improve service delivery.

- Promote technological and other innovations in service delivery strategies to increase coverage, reduce inequities and improve the quality of essential reproductive, maternal, newborn and child health interventions.
- Address supply chain problems, human resources shortages and other bottlenecks to the availability of essential services.
- Integrate the delivery of effective reproductive, maternal, newborn and child health interventions to maximize the number of women and children reached.

Inform and communicate to build effective partnerships.

- Communicate what needs to be done, targeting decisionmakers, implementing agencies, advocates and others.
- Strengthen intersectoral links for implementation of essential reproductive, maternal, newborn and child health interventions (such as water and sanitation to reduce the risk of disease transmission, transportation systems to increase access to emergency care, agricultural programmes to ensure food security and education systems to increase health literacy).
- Build stronger links across key national planning and development agencies (planning commission, ministries of finances and the like).
- Use data on reproductive, maternal, newborn and child health to engage in global policy dialogue on sustainable development (for example, Rio +20, G8 and G20 processes, development of the post-2015 framework and the like).

Countdown to success: taking action at the global and country levels

In keeping with the global Accountability Agenda set out by the Commission on Information and Accountability for Women's and Children's Health, *Countdown* is committed to annual reporting and analysis of country-specific information on the core Commission indicators and regular reporting on the full range of *Countdown* coverage, equity, health systems, health policies, and financing indicators.

Countdown recognizes that success in catalysing progress, ensuring accountability and helping the millions of women and children whose lives depend on access to effective health interventions will ultimately be measured by results in countries. *Countdown* is increasing its efforts to encourage and support countries to conduct their own country-level *Countdowns*, based on subnational profiles (by region, province or district) that are used to strengthen and stimulate political commitment and strategic planning. By engaging in a *Countdown* process, governments, parliamentarians, academics, civil society, media and other stakeholders can learn from successes and understand and develop solutions for remaining challenges in reaching high, equitable coverage of

effective reproductive, maternal, newborn and child health interventions in their countries.

Experience in several countries demonstrates that adopting a *Countdown* process can be a force for change. In 2006 Senegal became the first country to hold a national *Countdown* conference, bringing together government leaders, private and public partners and the academic community to develop a new child survival plan. Zambia held a national *Countdown* conference in 2008, resulting in important actions including a significant expansion of national capacity for midwife training. Nigeria has embarked on a national strategy, modelled on *Countdown*, that includes production of maternal and child health profiles for its 36 states, highlighting geographic inequities and opportunities to make concrete progress on coverage.

Because every country starts with its own unique set of baseline conditions, policy and planning approaches, health objectives and contextual factors, there is no single model for implementing a country *Countdown*. All *Countdown* processes, however, will:

- Be aligned with and linked to the existing national planning processes for reproductive, maternal, newborn and child health.
- Be organized and led by a broad range of in-country partners from multiple sectors, including academics, nongovernmental organizations, professional associations, parliamentarians and the private sector as well as the ministry of health, donors and UN agencies.
- Be focused on tracking coverage across subnational units for key, proven health interventions and on measuring equity of coverage across socioeconomic and demographic factors, including ethnicity, wealth, gender and geography.
- Engage national scientists and other academics in identifying critical indicators, compiling and assessing national and subnational data and objectively analysing the results
- Contribute to building country capacity to evaluate ongoing programmes and initiatives at the national and subnational levels.
- Produce profiles and reports to provide an ongoing report card on progress and remaining gaps.

- Culminate in a conference or other event to exchange ideas, develop consensus on objectives and action plans, attract media and public attention to women's and children's health issues and foster accountability

Technical support and guidance is available from *Countdown to 2015* and its members for countries wishing to initiate a country *Countdown* process.

A tool kit is being prepared for countries to use in planning and implementing national *Countdown* processes.

More information on activities, achievements, directions forward and how to get involved in *Countdown* is available at www.countdown2015.mnch.org.

