Supportive regional and national policies are in place to accelerate maternal and child survival in Africa, including more recent focus on the 1.16 million newborn who die each year on the continent. The biggest gap is not in policies, but between policies and the action required to strengthen the continuum of care and increase coverage of essential maternal, newborn, and child health (MNCH) interventions in countries.

Yet some African countries are progressively reducing newborn death rates despite low gross national income. What can we learn from these examples, especially about overcoming key barriers such as inadequate investment, financing of MNCH and human resource challenges? Even if opportunities within existing programmes are maximised, gaps in access and utilisation will still exist, especially in countries with weaker health systems and especially for the poor. What, then, are the options in these settings, and what can be done now while working towards stronger health systems? Can the “second primary health care revolution” in Africa be useful in MNCH scale up? Integration between MNCH programmes is much easier to say than to do – how can integration be promoted? How will progress be monitored and governments and partners be held accountable?
Introduction

Each year in Africa, 1.16 million babies die, yet up to 800,000 newborn lives, as well as many maternal and child deaths, could be saved if essential interventions reached 90 percent of women and babies. Many of these interventions exist in policy in almost every African country, fit within existing programmes along the continuum of care and have delivery strategies already in place. The cost of putting policy into practice is affordable at an estimated US$1.39 per capita in addition to what is already being spent. The reason that so many babies, as well as mothers and children die every year is not a lack of knowledge or of policy, but our collective failure to implement these interventions, achieve high coverage, and reach the poor.

Recent focus on slow regional progress towards Millennium Development Goals 4 (child survival) and 5 (maternal health) particularly in Africa has generated new attention towards scaling up essential interventions for maternal, newborn, and child health (MNCH). Progress is impeded by cross cutting challenges some of which are beyond the scope of newborn health and even MNCH. These constraints are well described, particularly the human resources for health crisis and the challenge of health care financing in a continent where the governments of 16 countries spend less than US$5 per capita on health, and an additional 11 countries spend less than US$10 per capita on health.

This section will outline important regional policy frameworks, highlighting specific opportunities to save newborn lives, and how addressing newborn health can be a catalyst for MNCH integration. Good news does come out of Africa – we highlight a number of countries that are progressing towards a lower neonatal mortality rate (NMR) despite low gross national income (GNI), and examine principles that can be learnt. The final part of the section walks through the policy and programme steps to accelerate action, including addressing human resource issues and financing MNCH.

Regional policy commitments are in place

Africa does not suffer from a lack of policy. Many key policies are in place, both broad based, such as health sector reform, and specific, such as prevention of mother-to-child transmission (PMTCT) of HIV. To reduce maternal, newborn, and child deaths and accelerate action towards Millennium Development Goals (MDG) 4 and 5, there are two main regional policy frameworks, both developed under leadership from the African Union:
- Road Map for accelerating the attainment of the millennium development goals related to maternal and newborn health in Africa – “Road Map” (Box IV.1)
- Regional strategy on child survival (Box IV.2)

The overlap between these two frameworks is the newborn. Newborn health may represent the “bridge” linking maternal and child health, but easily gets lost in advocacy and implementation devoted solely to either maternal health or child health. Ideally, these two policy frameworks will merge into one MNCH approach in countries and at the regional level. The formation of the African Regional MNCH Task Force, with secretariat based in WHO regional office for Africa office is a hopeful step in this direction (see Introduction, page 4).

The Road Map to accelerate progress towards MDG 4 and 5 in Africa

The Road Map has resulted in an unprecedented pace of policy uptake across countries, with at least 35 countries starting out on the process within 2 years. In most countries the process has been participatory and multi-sectoral (Box IV.1). High level commitment has been shown in several countries – in some cases, the President has even officiated at the national launch. The Road Map promotes an approach to care that addresses both supply and demand, in keeping with the household to hospital continuum of care. (See Section II) The real test of success will be if the coverage of essential interventions and packages, particularly skilled care and emergency obstetric care (EmOC), increases in coming years. While supply problems such as lack of human resources, infrastructure, and drugs are widely acknowledged, approaches to increasing demand are not as well defined in many countries, and community empowerment and behaviour change communication are rarely implemented systematically. At this point, most national Road Maps have not had adequate emphasis on the evidence based interventions that are possible at community level, particularly for the newborn.
BOX IV.1 The African Road Map for accelerating progress to the MDGs related to maternal and newborn health

In 2003, the African Regional Reproductive Health Task Force meeting called all partners to develop and implement a Road Map for accelerating maternal and newborn mortality reduction in Africa, advancing MDG 4 and 5. The guiding principles of the Road Map include:

1. Evidence based, phased planning and implementation at country level
2. Health systems approach with a focus on reducing inequity
3. Partnership with clear definition of roles and responsibilities, transparency, and accountability led by the regional Maternal, Newborn and Child Health Task Force

What’s new?

• Highlights the inseparable dyad of mother and newborn
• Consensus on plans for the next decade, including long term commitment and opportunities to harness resources from all partners
• Focus on two levels to make a difference: skilled care in health facilities and demand creation at community level
• Special attention to emergency obstetric and newborn care, with emphasis on skilled attendance as the process by which a mother and baby are provided with adequate care during labour, birth, and the postnatal period, regardless of where the birth takes place

Process and strategies:

Objective 1 Provide skilled care during pregnancy, childbirth and throughout the postnatal period

• Improve provision of and access to quality maternal and newborn care, including family planning services, ensuring that services are user-friendly
• Strengthen the referral system
• Strengthen district health planning and management of maternal and newborn care and family planning services
• Advocate for increased commitment and resources
• Foster partnerships

Objective 2 Strengthen the capacity of individuals, families, and communities to improve maternal and newborn health

• Promote the household to hospital continuum of care
• Empower communities to define, demand and access quality skilled care through mobilisation of community resources

Monitoring, evaluation and accountability

• Monitor country level and regional progress for the adoption and adaptation of the Road Map
• Track resource mobilisation and partner commitment for implementation of the Road Map
• Selected indicators for the different levels of care and services to be delivered, with phased implementation
Regional strategy on child survival

In 2005 the African Union, concerned about lack of progress towards meeting MDG 4 for child survival, called for an accelerated strategy on child survival for the continent (Box IV.2). The joint WHO/UNICEF strategy was endorsed by WHO member states in the 56th Regional Committee in August 2006. WHO, UNICEF and the World Bank are currently translating this strategy into a joint implementation framework for endorsement by African Union heads of state.

BOX IV.2 The African regional framework for child survival

**Priority areas.** The framework developed by UNICEF, WHO and the World Bank in partnership with the African Union provides consensus on the importance of the MNCH continuum of care, health systems and financing, and essential interventions. Priority areas include newborn care, linking to maternal care and involving skilled care during pregnancy, skilled attendance during childbirth, postnatal care and improved care in the community, and at primary and referral facility levels. Other priorities include infant and young child feeding and micronutrient supplementation, immunisation, malaria prevention, management of common illnesses, PMTCT and care of HIV exposed or infected children.

**Implementation plan.** The plan for implementation outlines delivery approaches and phasing to achieve universal coverage through partnerships, accountability, clear roles and responsibilities, and monitoring and evaluation. Three service delivery modes—a care in communities, through outreach services and clinical care at primary and referral facility levels—are proposed for packaging and implementing interventions: family-oriented community based services, population-oriented schedulable services, and individually-oriented clinical services. Three integration phases begin with implementation of the minimum package at scale, overcoming constraints to scaling up, and then bringing additional interventions into the expanded package. The goal is to achieve maximum coverage with the full package of interventions.

**Investment case.** The investment case details the estimated impact of reaching key milestones for neonatal and under-five mortality as well as phased costing of interventions and health systems strengthening. Keeping with a government-led focus, the inputs will be based on merging global support with nationally owned funding frameworks.
Health sector reform

Both of these regional frameworks are based on standard approaches that can be adapted, funded, and then implemented in countries, not in a vacuum but in the overall context of health sector reform. Health sector reform in countries varies from some decentralised decision making to a fixed health sector plan based on an agreed essential health package with annual external reviews. The health sector reform process provides an opportunity to scale up highly effective and feasible MNCH essential interventions. If these interventions are part of the national health package and linked to targets and budget lines with a regular review procedure, then national ownership, sustainability, and accountability are likely to follow. Several African countries now have an MNCH subcommittee of their health sector plan that focuses on MDG 4 and 5. Uganda, for example, recently added a subcommittee to the maternal and child health cluster to make recommendations for strengthening newborn care within the national health sector strategic plan.

In Malawi, government and partners joined efforts to develop and cost an essential health package linked to the national Sector Wide Approach (SWAp), which as prompted increased investment into the national health sector plan from donors.

Some African countries are making progress in saving newborn lives

While news from Africa is often negative, there is a huge amount of variation between and within African countries and there are examples of success. A number of countries in Africa – Tanzania, Malawi, and Ethiopia – have recently shown dramatic reductions in under-five mortality rate (U5MR) according to new DHS data. There are also countries making steady progress in reducing U5MR, NMR as well as maternal mortality, such as Eritrea. (See Section I, figure I.2)

We expect that countries with low average incomes would have high mortality, and while that is often true, there are some positive surprises. Box IV.3 shows a plot of NMR compared to GNI per capita. We would like to examine further the positive outliers – countries that have progressed to a lower NMR given still low GNI per capita. We highlight these countries – Eritrea, Malawi, Burkina Faso, Tanzania, Uganda and Madagascar – to show that good news can come out of Africa. These countries are progressing, moving from very high NMR, U5MR, and in many cases, maternal mortality ratios (MMR), to lower rates. In some cases measurement of NMR may be a challenge but notwithstanding this, what can we learn from their experience so far?

Box IV.3  Some African countries are making progress despite limited wealth: neonatal mortality rate by gross national income (GNI) per capita
Many factors may contribute to improvements in newborn health. However, for each of these countries with a lower NMR (31 per 1,000 live births or less) as well as low GNI per capita (less than US$500 per year), it is worth highlighting key points that are likely linked to these successes. Also listed is each country’s progress towards reaching the Abuja commitment of spending at least 15 percent of the general budget on health. An important caveat is that Demographic and Health Surveys (DHS) tend to underestimate neonatal deaths, so the true NMR in some of these countries is likely to be higher.

**Eritrea:** (NMR = 24, GNI per capita = US$180, Abuja progress = 5.6%) Despite being one of the world’s poorest countries, ranking 157 out of 173 countries in the UNDP Human Development Index, and despite challenges of wars and famines, Eritrea has achieved extraordinary child health gains. The steady reductions in the U5MR in this country have been highlighted already in Section I. How are these results being achieved? Firstly, by strong commitment to child health at all levels and secondly, through lack of corruption in Eritrea and strong donor collaboration, which multiply the impact of limited resources. Eritrea was one of the first African countries to be certified as having eliminated neonatal tetanus. Despite these successes, challenges remain. For example, the coverage of women who give birth with a skilled attendant – only 28 percent – is still low, while MMR is moderately high, at 630 per 100,000. Eritrea’s national Road Map has been developed to address its high MMR, and innovative approaches are being explored to solve the human resource crisis in the country.

**Malawi:** (NMR = 27, GNI per capita = US$170, Abuja progress = 9.7%) Although questions remain about the accuracy of the NMR estimate in the country’s most recent DHS, Malawi has undoubtedly shown progress in reducing child deaths, as described in Section I. Many factors may contribute to this progress, despite few evident increases in coverage of most essential interventions in the same time period. Health sector reform in Malawi has been a participatory process that has resulted in a national consensus on the essential health package and increased investment in the health sector. Costing exercises have led to greater collaboration between Ministry of health and donors – two donors provided an additional US$40 million after the Road Map was costed. The level of commitment to the Road Map is demonstrated by the fact that it will be launched by the President.

**Burkina Faso:** (NMR = 31, GNI per capita = US$360, Abuja progress = 10.6%) Recent high level advocacy in Burkina Faso regarding maternal and newborn deaths with the REDUCE advocacy tool resulted in an 11 percent increase in government funding for maternal and newborn health. Advocacy also resulted in legislation to reduce family payment for caesarean sections, from US$120 to a maximum of US$20.

**Tanzania:** (NMR = 32, GNI per capita = US$330, Abuja progress = 14.9%) Tanzania has shown consistent government commitment to invest in health and decentralise decision making for health spending based on district priorities. Now district health teams allocate local budgets based on local burden and the coverage of some high impact interventions has risen. The national Road Map is under development with additional emphasis on newborn health.

**Uganda:** (NMR = 32, GNI per capita = US$270, Abuja progress = 9.1%) In Uganda, the current Health Sector Strategic Plan II includes a Maternal and Child Health Cluster, with a recently added newborn health sub-group. The focus is on scale up of essential interventions and reaching the poor. In addition, each year the health districts’ results are published in national newspapers, promoting public accountability.

**Madagascar:** (NMR = 32, GNI per capita = US$300, Abuja progress = 8.0%) Recent review of the national Medium Term Expenditure Framework provided an opportunity to integrate newborn health into the existing MNCH plan, especially as the last DHS showed that the percentage of under-five deaths in the neonatal period has risen. Focus is on family planning, antenatal care, and community strategies as well as addressing human resource constraints for skilled and emergency obstetric care. Madagascar has a strong tradition of community involvement and effective community-based programmes.

See Section V country profiles and data notes for more information on NMR, GNI per capita and other indicators used in this box.
What ingredients lead to progress in saving lives?

Every country differs, but there are four themes – the ABCD of progress – shared by countries experiencing gains in MNCH:

**Accountable leadership:** In many of these countries, consistent and accountable leadership and good stewardship of resources sets the direction and ensures action. Good leadership not only maximises teamwork within a country, state, or organisation, but also attracts investment from outside sources. The Paris Declaration on aid effectiveness set out the crucial principle of the government being in the leadership role and partners respecting the “Three Ones”:

• One national plan
• One co-ordinating mechanism
• One monitoring and evaluation mechanism

**Bridging national policy and district action:** Almost all of these countries have poverty reduction strategy papers and health sector reform plans. Too often there is a gap between strategic planning and the national level and action in districts. Tanzania has developed a tool to enable districts to allocate local budgets according to certain identified categories of local burden of disease which has increased local spending on child survival and been associated with steady increases in coverage of essential interventions.

**Community and family empowerment:** Much of the care for mothers and their newborns and children occurs at home where women and families are not merely bystanders. If empowered, they can be part of the solution to save lives and promote healthy behaviours. In Senegal, a national committee on newborn health was established to target both the facility and community, developing and strengthening links between the two and involving key partners at the national and regional level. In one area, a BASICS-supported project strengthened health facilities through the training of health workers, supportive supervision, and supply of basic equipment. Counselling by community health workers (CHW) and volunteers and semi-skilled facility workers – the matrones – also improved. Along with use of mass media, these communication strategies resulted in improved family behaviours, such as birth preparedness, or setting aside funds for emergencies (from 44 percent to 78 percent), wiping the baby dry soon after birth when the baby is born at home (from 54 percent to 73 percent), initiating breastfeeding within one hour of birth (from 60 percent to 78 percent), and avoiding pre-lacteal feeds (from 39 percent to 71 percent).

**Demonstrated commitment to:**

• Making and encouraging policy to support MDG 4 and 5 and increasing coverage of MNCH essential interventions and packages. The Road Map and the regional Child Survival Framework both focus on increasing the coverage of essential interventions. Continued...
pocket spending on health care for 44 countries. In most southern African countries, less than 20 percent of health spending comes from out-of-pocket costs, largely due to stronger social security systems in these countries. However, the 17 countries with the highest out-of-pocket expenses are in the poorest African sub-region, west and central Africa, with 40 to 80 percent of health expenditure coming directly from families. Several analyses suggest that user fee exemptions based on socioeconomic status are very hard to implement and exemptions based on demographics (e.g. age, pregnancy) may be more effective. Removing user fees can dramatically increase demand for services, and could overwhelm the system at the same point at which regular income from fees would be lost. Careful assessment and a phased fee removal strategy is required. A number of African countries have recently removed user fees or changed policies to try to reduce the effect of user fees on the poor. In light of the potentially catastrophic costs for obstetric and emergency care, the governments of Zambia and Burundi in 2006 joined at least twelve other sub-Saharan African countries that have full or partial user fee exemptions for pregnant women, newborns, and children. Zambia has abolished user fees altogether, while Burundi has instituted user fee exemptions for births and caesarean sections as well as for care to children under-five. Available information on MNCH user fees appears on each country profile in Section V.

**FIGURE IV.1** Families bear the burden of health care costs in many African countries

![Figure IV.1](image)

Source: Reference. For more information on out-of-pocket expenses and other financial indicators, see the country profiles and data notes in Section V.

**Operationalising and moving to action**

Successful plans that lead to action require both good policy and good politics. With good policy but no ownership, investment of time, money, and energy to sustain action is unlikely. With good politics but poor policy, the action may be misdirected, and fail to build a stronger health system over time, or may increase inequity. An effective participatory process should reach consensus on a phased operational plan and will catalyse MNCH integration by bringing together maternal and child health groups as well as those for malaria, HIV and others. In order to be effective two parallel and interdependent processes are involved (Figure IV.2).

A participatory political process that identifies and engages key stakeholders, promoting an enabling policy environment and resulting in agreement on the resources needed for implementation. The key players in this process include:

**Stakeholder group** – Ideally this includes the broad based national or local MNCH partnership group led by the national government and including the relevant Ministry of Health constituents for MNCH as well as other non-health Ministries, relevant partners and donors, non-governmental organisations (NGOs), and women's advocacy groups. This approach promotes the acceptance of a national plan for MNCH and the harmonisation of donor and other inputs to encourage the building of a stronger national health system that responds to MNCH needs over time.

**Core group** – A team is identified and provided with terms of reference for conducting the situation analysis. It is important for this team to include individuals with an appropriate range of experience and skills in programme, policy, and data handling as well as representatives from varying MNCH constituencies.
A process to develop a strategic and operational plan using data to systematically work through the programme management cycle steps as follows:

**Step 1.** Conduct a situation analysis for newborn health in the context of MNCH

**Step 2.** Develop, adopt, and finance a national strategic plan embedded in existing national policy and plans

**Step 3.** Implement interventions and strengthen the health system

**Step 4.** Monitor process and evaluate outcomes, costs, and financial inputs

These steps can be adapted for the specific country or setting, depending on the status of the existing MNCH planning process. For example, if the Road Map is already an active policy document, the priority may be an integrated operational plan for strengthening newborn health that links the Road Map, the Integrated Management of Childhood Illness (IMCI) strategy, and other relevant existing policies into a phased implementation plan. Steps 1 and 2, then, would be less important, primarily ensuring that no major gaps existed once the content of existing policies had been reviewed. It is useful to set a time limit for completing each of the steps as well as for the completion of the report. A situation analysis guide and some draft group guides to help work through these steps are given on the CD accompanying this publication. These are being used in a series of facilitated workshops to help teams from countries advance the process of strengthening newborn health in their countries. In addition some examples of national situation analyses and plans are provided on the CD.

**FIGURE IV.2 Outline of the process to develop and implement a strategy and operational plan**

1. Identification of a core group (preferably using or strengthening an existing group) to guide the development of the newborn health strategy and a wider stakeholder group
2. Assessment of technical and other resources required for strategy development by the core group
3. Development of the draft strategy under the leadership of the core group:
   - Step 1. Conduct a situation analysis for newborn health in the context of MNCH
   - Step 2. Develop, adopt and finance a national strategic plan (Prioritise interventions, packaging them and phasing their delivery)
4. Consensus meeting with a wider stakeholder group to present and finalise the draft strategy and operational plan. Disseminate the plan.
5. Step 3: Implement interventions and strengthen the health system
6. Step 4: Monitor progress and evaluate outcome

Source: Adapted from reference*
Step 1. Conduct a situation analysis for newborn health in the context of MNCH and set national targets for NMR reduction linked to MDG targets

Evidence based information not only strengthens policy and programmes, but also furthers advocacy dialogue. The same data may be used in different ways for different audiences. Often, mortality rates alone do not influence policy makers, but changing the rates into numbers of deaths per year or per day, helps to translate statistics from abstract concepts to everyday reality. It is difficult to ignore the fact that a quarter of a million babies in Nigeria die every year, for example. MNCH data for policy dialogue, programming, and advocacy is provided in the 46 country profiles at the end of this publication. In addition, applying models that provide data on economic losses due to morbidity and mortality, such as the advocacy PowerPoint presentations regarding maternal health (REDUCE!) and newborn health (ALIVE!), can help to link these events to overall national development.

Additionally, identifying champions and working with them to deliver targeted MNCH messages and data can help accelerate change. In West Africa, the First Ladies (wives of the presidents) have been very active supporters of scaling up maternal and newborn health. In Mauritania, the First Lady used data and information generated from the REDUCE! advocacy model to sensitise policy makers, community leaders, and the general population on the magnitude of maternal and newborn mortality. This has enhanced government and civil society actions to improve MNCH in the country. In Burkina Faso advocacy at high level has resulted in increased funding for MNCH and reduction in user fees for caesarean sections (see Box IV.3)

Once a situation analysis is complete (Box IV.4), it is important to set or revise national level targets related to newborn health. For MDG 4, it makes more programmatic and policy sense to track U5MR and NMR rather than U5MR and infant mortality rate (IMR). The availability of data is the same, and there is usually little difference in the trends or solutions for U5MR and IMR, whereas U5MR and NMR tend to differ in rate of change and potential solutions, as discussed in Section I.

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**BOX IV.4 Assessing the status of newborn health in the context of MNCH**

**Task 1: Describe the status of newborn health in the context of MNCH**
- Report on key MNCH outcomes such as MMR, U5MR, NMR, stillbirth rate, causes of neonatal death, LBW rate. Disaggregate key outcome indicators by geographic region, ethnic group and income quintile to look for under served populations

**Task 2: Examine the coverage and quality of essential interventions**
- Coverage of MNCH packages, essential interventions and quality of care. Disaggregate key coverage indicators by geographic region, ethnic group and income quintile to look for under served populations
- Integration between different health service delivery points or programmes
- Home behaviours and cultural practices
- Further examine the reasons (supply and demand) for low coverage
  1. Assess supply barriers to accessing care
     - Access (long distance, limited transport, geographic terrain issues)
     - Human resources (lack of skilled personnel due to brain drain, absenteeism)
     - Commodities (poor management of supply chain, cold chain failure),
     - Quality of care (lack of standards or knowledge of standards or low motivation)
  2. Assess demand barriers to seeking care
     - Knowledge of danger signs for newborn illness, or maternal complications
     - Acceptability (compare profiles of users and non-users considering distance, cultural, or other barriers)
     - Affordability (user fees, ineffective fee exemptions, hidden or “under the table” costs)

**Task 3: Review current policies, commitment and opportunities**
- Policy plans and goals of relevance, e.g. Road Map, Child Survival Framework, health sector reform
- Current health spending on MNCH essential interventions by government and key partners

**Task 4: Synthesise strengths and weaknesses of health system**
- Early opportunities to save lives
- Major gaps in service provision, either for certain packages or for certain ethnic or socioeconomic groups

Source: Adapted from reference 18
Step 2. Develop, adopt, and finance a national plan embedded in existing policy

Develop an integrated operational plan with a focus on bridging gaps in the continuum of care

Often the strategies to address newborn deaths are present in multiple existing maternal and child health plans and programmes, as outlined in Section II and throughout the programmes and packages addressed in Section III. It is possible that countries already have multiple operational plans in place; in Tanzania, for example, there is a strategy for health sector reform, the Road Map, the IMCI plan, and a Poverty Reduction Sector Plan as well as specific plans for the Expanded Programme on Immunisation (EPI), malaria, and HIV, all of which relate to MNCH. A separate strategic plan that only addresses newborn health would take time and energy away from action. The need, then, is to develop practical operational linkages between existing plans and activities (e.g., health sector reform, Road Map, and IMCI) to accelerate progress in scaling up high impact interventions with phased coverage targets, ensuring a seamless continuum of care.

Identify and address missed opportunities within the health care system

As highlighted throughout this publication, there are many opportunities to reduce newborn deaths through existing programmes and packages within the continuum of care where adding, adapting, or strengthening interventions linked to an existing package could rapidly result in relatively high coverage. Prime examples include adapting IMCI to incorporate care of the sick newborn in the first week of life and ensuring every skilled attendant is able to provide essential newborn care and resuscitation. Linking home newborn care with well-established immunisation and malaria prevention messages would also reach large audiences in a short time. Maternal death audit has been well promoted in Africa, particularly through WHO’s “Beyond the Numbers” which helps programme planners generate the right kind of information to prevent maternal deaths. Where women die or nearly die, there are usually many associated stillbirths and newborn deaths. Maternal death audits could include or link to a review of fetal and neonatal deaths since the system failures that lead to both mother and newborn deaths are often the same.

Phasing to address major gaps in service provision

As highlighted in Sections II and III, and as shown clearly in the country data along the continuum of care in the African country profiles in Section V, health service gaps in most countries include:

- Low coverage of skilled attendance and EmOC, especially for poor and rural communities (see Section III chapter 3)
- Low coverage of postnatal care and little concrete knowledge about the quality of care provided at home or in facility (see Section III chapter 4)
- Lack of systematic community empowerment through implementation of behaviour change and possible community-based interventions, particularly for newborn and child health

Skilled care during childbirth is a well-defined package that is most effectively scaled up through a facility-based approach. This is a high impact package for saving the lives of mothers and babies, and for preventing stillbirths. It requires consistent commitment to bringing facilities closer to families, producing and retaining more midwives and more obstetricians, and empowering communities to demand and access quality care. An estimated 180,000 additional midwives are required in the next ten years in order to reach universal coverage in sub-Saharan Africa. This increase in human resources will take immediate planning, investment, and concerted action. This is a long-term solution, and while interim plans are needed, they should not come at the expense of future investment in skilled care.

Postnatal care and community-based packages are not as well defined as other packages, and much of the information comes from Asia and needs to be adapted, tested, and refined in different African settings. In addition, the available cadres of community-level health workers in African countries are much more variable than in Asia. An extremely careful evaluation regarding sustainability should be undertaken before generating new cadres of health workers at any level.

Table IV.1 presents ideas for phasing strategies according to baseline NMR and health system capacity. In the
highest mortality setting, where NMR is greater than 45 per 1,000 live births, the majority of births occur at home, and while skilled attendance is low (33 percent), reported coverage of traditional birth attendants is even lower (20 percent). More than half of all births take place with no one assisting at all. The World Health Report 2005 describes this as “massive deprivation.” In these settings, more than half of neonatal deaths are due to infections, including tetanus. Rapid reductions in NMR are possible with tetanus toxoid immunisation and healthy home behaviours. According to a new analysis completed for this publication, based on methodology used in The Lancet newborn survival series, up to a third of newborn deaths could be averted at the community and family level whilst strengthening human resources and facility based skilled care. If policy makers and programme managers do not work now towards building a stronger health system, especially scaling up skilled care, opportunities to make more substantial progress towards saving maternal, newborn, and child lives will be lost.

The middle two settings, with NMR ranges between 30 to 44 and 15 to 29, are what the World Health Report 2005 describes as “marginalised.” While richer, urban populations in these countries have access to skilled care, poorer and other marginalised populations do not. The solution lies in addressing bottlenecks to scaling up. At the lowest levels of NMR, higher inequity in coverage may still exist, particularly for very expensive interventions. In these situations, the focus should be on improving quality of care and long term outcomes such as disability.

If the 12 highest mortality counties in Africa were to start with community level and outreach, whilst strengthening more complex clinical care packages, and progress through phased scaling up through three incremental increases of 20 percent coverage, to reach 90 percent coverage of the essential interventions, then even with the first increment of 20 percent increase up to 171,000 newborn lives could be saved each year. Half of the newborn deaths in Africa preventable through essential interventions (409,000 of 800,000) are in these 12 high mortality countries (Table IV.2). The additional running costs of the interventions in these 13 countries for phase 1 is estimated at than US$0.12 billion rising to US$0.22 billion for 90 percent coverage, when three-quarters of the cost is the provision of clinical care. For more details on this analysis, see data notes in Section V.

Cost the plan and fill the resource gap
Countries that estimate the cost of specific MNCH programmes and then link this cost to an estimate of lives saved are more likely to see more resources invested in MNCH. In addition, building consensus around an operational plan with associated costs contributes to government leadership and partner harmonisation. If all partner resources in a given country were harmonised,

<table>
<thead>
<tr>
<th>Mortality setting</th>
<th>NMR &gt;45</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Place of birth</strong> (median % of births in facilities)*</td>
<td>Majority at home (33%)</td>
</tr>
<tr>
<td><strong>Antenatal care</strong></td>
<td>Moderate coverage</td>
</tr>
<tr>
<td><strong>Skilled attendance at birth (Median TBA coverage)</strong></td>
<td>Median 41% (20%)</td>
</tr>
<tr>
<td><strong>Emergency obstetric &amp; neonatal care</strong></td>
<td>Very limited services</td>
</tr>
<tr>
<td><strong>Postnatal care</strong></td>
<td>Very low coverage</td>
</tr>
<tr>
<td><strong>Principles for phasing coverage targets for the next 2-3 years</strong></td>
<td>Initiate systematic plans to increase coverage of skilled care. Aim to increase priority family behaviours and coverage of outreach services.</td>
</tr>
<tr>
<td><strong>Family and community – examples for faster scaling up</strong></td>
<td>Promote birth preparedness, clean childbirth practices, demand for care &amp; optimal neonatal care practices. Consider extra care for LBW infants through routine postnatal home visits. Consider clean birth kits for home births.</td>
</tr>
<tr>
<td><strong>Outreach and first level health facility – examples for faster scaling up</strong></td>
<td>Increase coverage of Tetanus Toxoid (at least 2 immunisations during pregnancy) ANC, birth spacing interventions, IMCI, routine postnatal care.</td>
</tr>
<tr>
<td><strong>24-hour clinical care and hospital care – examples for faster scaling up</strong></td>
<td>Initiate systematic plans to increase coverage of skilled personnel, EmOC, and neonatal care, at least in district hospitals.</td>
</tr>
<tr>
<td><strong>Principles for the medium term</strong></td>
<td>Develop an implementation plan for human resources, including delegation of tasks where appropriate, finances, and commodities to increase coverage of skilled attendance, outreach services, and family care. Strengthen linkages between communities and facilities and promote community participation.</td>
</tr>
<tr>
<td><strong>Lives saved</strong></td>
<td>Baseline coverage of essential interventions increased by 20%</td>
</tr>
<tr>
<td><strong>Lives saved in the 12 very high (&gt;45) NMR countries progressing through 4 phases of NMR reduction with increasing coverage of essential packages</strong></td>
<td>Up to 171,000 newborn lives saved in 13 countries in sub-Saharan Africa from baseline.</td>
</tr>
</tbody>
</table>
### Opportunities for Africa’s Newborns

**newborn lives within existing programmes, according to baseline NMR and health system capacity**

<table>
<thead>
<tr>
<th>NMR 30-44</th>
<th>NMR 15-29</th>
<th>NMR &gt;15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix of home and health facility (48%)</td>
<td>Majority in health facility (65%)</td>
<td>Almost exclusively in health facility (98%)</td>
</tr>
<tr>
<td>Moderate to high coverage (median 77%)</td>
<td>High coverage, but inequities (median 82%)</td>
<td>High coverage (median 98%)</td>
</tr>
<tr>
<td>Median 50% (TBA 18%)</td>
<td>Median 85% (TBA 9%)</td>
<td>Median 98% (NA)</td>
</tr>
<tr>
<td>Moderate coverage, poor access/affordability</td>
<td>Moderate to high coverage, quality variable, inequities remain</td>
<td>Universal coverage</td>
</tr>
<tr>
<td>Low coverage</td>
<td>Moderate coverage</td>
<td>High coverage</td>
</tr>
</tbody>
</table>

Aim for faster increases in the coverage of skilled care. Continue to increase coverage of priority family behaviours and outreach services.

Promote demand for skilled care and optimal neonatal care practices. Consider extra care for LBW infants by routine postnatal home visits.

Increase coverage and quality of ANC, IMCI, and routine postnatal care.

Increase skilled care at birth, functional EmOC, and neonatal care in district and sub-district hospitals.

Implement plans to increase coverage of skilled personnel, especially in hard-to-work places. Develop guidelines, training, supervision, and Monitoring and Evaluation tools. Design financing mechanisms to protect the poor.

Essential interventions coverage increased by an additional 20% Up to 280,000 newborn lives saved

---

Source: Adapted from references**23,26.** See data notes in Section V for details on lives saved analysis for sub-Saharan Africa using the assumptions and models described in The Lancet newborn survival series.**24,27** The 12 countries in Africa with NMR greater than 45 per 1000 live births are Angola, Central African Republic, Côte d’Ivoire, Democratic Republic of the Congo, Gambia, Guinea-Bissau, Lesotho, Liberia, Mali, Nigeria, Sierra Leone, and Somalia.
allowing MNCH and donor investments to follow country-led priorities, progress would be greatly accelerated - the founding principle of The Partnership for Maternal Newborn and Child Health. An effective example is Malawi’s essential health package and Road Map, which generated additional funding from several donors after costs were estimated (see Box IV.3).

A range of programmatic tools are available (see Table IV.2), some for costing, some for more detailed programme planning and some which estimate cost and impact for maternal, newborn, and child health in a number of simulated coverage scenarios and through various service delivery modes.26 These tools all require local information to be input particularly regarding the choice of interventions, baseline and target coverage, demographic and epidemiological data, health system information (number of facilities, human resources) and local drug prices and salaries. Some of the tools have linked drug prices and salaries as a default if this information is not available locally. Work is in progress to better harmonise these tools.

**TABLE IV.2 Summary of some relevant programme tools which include cost estimates**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>To estimate running costs for varying coverage levels for selected child survival interventions</td>
<td>To plan resources (human and supplies) needed to deliver a selected set of health care interventions</td>
<td>To estimate running costs and/or scaling up</td>
</tr>
<tr>
<td><strong>Use</strong></td>
<td>Can be used for medium term planning at the national or sub-national level once strategy is designed</td>
<td>Can be used for detailed planning and logistics in a programme using defined interventions</td>
<td>Can be used to help guide priority setting and phasing in the context of national or regional planning and policy dialogue</td>
</tr>
<tr>
<td><strong>MNCH remit</strong></td>
<td>Child health only, but possible to expand</td>
<td>Reproductive and child health</td>
<td>Reproductive and maternal health</td>
</tr>
<tr>
<td><strong>Costing remit</strong></td>
<td>Currently does not include systemic or overhead costs</td>
<td>Currently does not include systemic or overhead costs</td>
<td>Cost of activities and health system improvement (training, equipment, referral system, etc.)</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Cost and resources (human resources, facilities, drugs and supplies, equipment)</td>
<td>Resources (drugs and supplies, equipment, HR and facilities) and logistics to provide a user-defined package of interventions</td>
<td>Cost of providing an essential package of reproductive health interventions (family planning, ANC and childbirth care, EmOC, STI/HIV management)</td>
</tr>
<tr>
<td></td>
<td>Estimated costs (per capita) to expand coverage of agreed package(s) of MNCH interventions</td>
<td>Estimated costs (per capita) to expand coverage of agreed package(s) of MNCH interventions</td>
<td></td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>Linked Excel spreadsheets</td>
<td>Customised software and interface</td>
<td>Linked Excel spreadsheets</td>
</tr>
<tr>
<td><strong>User friendliness</strong></td>
<td>Fairly simple to use and can be done with support in a few weeks</td>
<td>Requires in-depth training to use and is time consuming</td>
<td>Fairly simple to use and can be done with support in a few weeks</td>
</tr>
</tbody>
</table>

Source: Adapted from reference15 with specific additional inputs from UNFPA.
Step 3. Implement interventions and strengthen the health system

Countries and programmes that have succeeded in achieving high coverage have focused on select interventions and packages, rather than trying to do all at once. While there is a strong justification for a focus on fewer, high quality interventions, the other ingredients for success are often missing: leadership, management, and effective use of data for decision making. Over time, interventions requiring greater skill and more expensive supplies can be added to the essential packages. For example testing and treating pregnant women for asymptomatic urinary infections is evidence based but is more complex and expensive than the simpler ANC interventions in focused antenatal care. However, as capacity increases, or perhaps in referral settings, this intervention may be added to the essential package.

In carrying out a programme, key questions to ask are:
- **What?** Essential interventions
- **Where?** Home or at a primary care facility, depending on the intervention
- **With what?** Supplies, commodities, and drugs
- **Who?** The skills required and which cadre can do what
- **When?** Through an integrated delivery strategy during pregnancy, childbirth, and the postnatal period

Global guidelines should be nationally adapted, and include job aids for in-service training, supervision, and regulation. Ongoing audit is a powerful tool for quality improvement.

Strengthen supply

**Where and with what? Infrastructure, supplies, and commodities**

Despite the fact that newborn care is often associated with advanced technology, the majority of newborn deaths can be averted with simple technology and treatments or no technology at all. In Europe and North America the NMR was less than 15 before neonatal intensive care was scaled up. Examples of effective but simple interventions possible with weak infrastructure include breastfeeding promotion and tetanus toxoid immunisation (Table IV.1). However in order to achieve MDG 4, facility care, although not intensive neonatal care, is necessary – this should include skilled childbirth care and EmOC, requiring an operating theatre, safe blood transfusion supplies, and a wider list of essential drugs. These are very important investments for any country serious about saving the lives of mothers and babies.

**Who? Human resources**

To save both mothers and babies, the “who” (human resources) is the most crucial ingredient for success. WHO identified 32 countries in sub-Saharan Africa with critical shortages of skilled staff and very low workforce density where urgent action is needed in order to meet the health related MDGs. In almost all African countries there are service provision gaps, usually in rural areas, due to the difficulties associated with retaining and deploying skilled staff.

Building teams of health workers with a balanced skill set is an approach to reaching higher coverage and maximising effectiveness. Time and motion assessment of on the job functioning suggests that midwives spend a lot of time completing administrative tasks such as record keeping. If midwives are already in short supply, how can their time be prioritised to perform skilled tasks such as childbirth care? Removing clerical tasks from midwives’ duties is likely to increase job satisfaction as well as increase efficiency. In some cases, this will necessitate legal changes to support the delegation of responsibilities. In a recent survey of EmOC services, for example, Tanzania found that less than 10 percent of their basic obstetric care facilities met the expected standards, largely because no one could provide vacuum extraction. Consequently, national regulations are being revised to allow midwives to perform vacuum extraction.

Too often, human resource challenges are tackled in a piece-meal fashion that merely prolongs the existing crisis. For example, while increasing uptake of antiretroviral (ARV) therapy is crucial in many African countries, the salaries and other incentives offered by ARV programmes have been much greater than other programmes, leading to a departure of staff from routine health services and slowing the scale up of other high impact interventions. Malawi has made a concerted attempt to develop a comprehensive human resources plan (Box IV.5).

**BOX IV.5 Malawi’s emergency human resources programme**

Malawi has had a medical school only since the early 1990s and suffers a chronic shortage of doctors, nurses, and skilled workers, a situation exacerbated by the brain drain and AIDS. A survey of health facilities in 2003 indicated that of about 617 health facilities in the country, only 10 percent satisfied the requirements for delivering essential health services based on availability of services and staff levels. After the government launched the Essential Health Package in 2004, it became clear that improving staffing levels is the single biggest challenge to implementation. An emergency human resources programme was developed by the government and partners to:
- Improve incentives for recruitment and retention of staff through salary top-ups
- Expand domestic training capacity, temporarily using international doctors and nurse tutors
- Provide international technical assistance to strengthen management capacity and skills and establish monitoring and evaluation of human resource flows

Source: Adapted from reference

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An overarching plan for human resources is therefore essential and should include TRAIN, RETAIN, SUSTAIN strategies.30

**TRAIN – Produce more workers, especially skilled workers**

- Increase capacity of training schools. This may require reaching out to private education training institutions. For example, South Africa is planning to outsource the training of thousands of lay health workers to NGO and private training organisations that have been accredited by the Department of Health. The Department of Health has also set out strict competence outcomes based upon a standardised training curriculum. Fast-tracking such training initiatives is required to address the human resource crisis
- Promote North-South partnerships for fast-track training of health workers
- Develop ‘return to work’ packages for those who are out of the current workforce, either caring for children or overseas
- Increase the fiscal space to save lives – a significant increase in health budgeting is required to address the human resource crisis in Africa

**RETAI N – Keep workers**

- Improve pay and terms and conditions of employment
- Improve staff motivation through incentives and job satisfaction (prestige, salaries, working conditions, promotion, performance-based remuneration)31

**SUSTAIN – Make better use of available workers**

- Provide HIV prevention services and care and support for infected workers
- Allow flexible working hours for families and HIV positive staff

**BOX IV.6 The second primary health care revolution – an opportunity for MNCH**

The first primary health care revolution peaked with the Declaration of Alma Ata in 1978, which envisioned health for all by the year 2000 using primary health care as the main vehicle with a focus on Maternal and Child Health (MCH). There were many reasons that this vehicle broke down, including the lack of sustained focus as global health policy swung to focus on disease eradication. In addition, CHWs were allocated multiple tasks but received little or no supervision, or pay. Despite the massive wave of workers who were trained, little careful evaluation was published.

After a series of vertical programmes, including the ongoing polio eradication and heightened HIV, malaria and tuberculosis activities have occupied centre stage for health service delivery approaches, attention is now shifting towards the acceptance of MNCH as the backbone of health care. Communities and CHW are being seen again as vital agents for scaling up care. In sub-Saharan Africa, the human resource crisis has accelerated the speed of policy change towards CHW; Ethiopia, for example, is training 30,000 female community based Health Extension Workers to focus on MNCH, malaria, and HIV.34 Kenya, Ghana, and South Africa are planning national CHW programmes. Nigeria is also strengthening the capacity of Community Health Extension Workers with a curriculum that includes lifesaving skills for MNCH.

Yet a search of available literature to guide policy shows a lack of mortality impact studies. Most evaluations are regarding process rather than impact, and many relate to special interest programmes – increasing coverage of insecticide treated bednets, measles vaccine, or Guinea worm eradication, for example. Few
publications discuss process evaluation of MNCH services, such as breastfeeding and nutrition promotion, and none were identified that relate to integrated child health or MNCH programmes, even though such programmes are being scaled up. Programmes like the high profile Accelerated Child Survival Programme, led by UNICEF and funded by the Canadian International Development Agency, and the community IMCI (C-IMCI) work of UNICEF exist in several African countries, but they lack rigorous external evaluation assessing mortality impact, let alone associating these outcomes to key choices regarding how to implement such programmes.

South Asia has contributed many more studies demonstrating mortality reduction, but mainly in small scale programmes. More rigorous evaluation of community level interventions is urgently needed especially in Africa. As these programmes are rolled out, there is a need to assess their process, markers of success at scale, cost and mortality impact. Doing so will ensure that investment is safeguarded and the opportunity to save lives by linking CHW systems to the formal health system is maximised.

Source: Adapted from reference

**Increase demand**

Expanding coverage of interventions involves more than simply increasing the supply of services. In many African countries, low coverage of skilled attendance is not only an issue of supply. Families may have access to a health facility for childbirth, but many remain at home for a variety of reasons, including:

- Poor adherence to referral recommendations due to lack of information or misunderstanding,
- Impediments to access such as distance and difficult terrain
- Low quality or absence of health services and service providers, disrespect for women or the poor
- Cultural, ethnic, and gender based barriers
- Inability to cover direct costs (official or under the table) or opportunity costs, such as missed days at work, or both
- Local obstacles to supply and demand, e.g. user fees

When careful, systematic attention is given to addressing demand for care, especially skilled care, utilisation will rapidly increase. Suggested solutions for some of the constraints listed above can be found in Table II.1 in Section II. For example, community loans or participatory plans to address emergency transport for obstetric and newborn care could facilitate the use of stretcher teams, bicycle ambulances, and community reimbursement of vehicle owners in local transport cooperatives.

**Integrate MNCH services with other key programmes**

Integration is easier to preach than to practice. Successful integration of services requires a clear outline of roles and functions, such as protocols and care guidelines, clear referral pathways, supply management, and information and supervision systems. All of these activities are dependent upon strong technical leadership at the central level. Maintaining management skills of high quality requires a structured programme of human capacity development through regular updates, training, and postgraduate educational opportunities. Furthermore, stewardship by the central government needs to be complemented by operational managers at the district level to ensure an effective link between the central body and health facilities, as shown by experiences from large scale programmes. A review of 15 successful tropical disease programmes found that effective programmes decentralise and integrate operations but retain a central policy making authority.

Facilitating integration, and especially to ensure that this reaches the district level, will take time and has challenges as shown by experience of integration of PMTCT and MNCH in Uganda (Box IV.7). Using a phased approach for the future, therefore, may prove more successful. At the very least, it will engage a wider range and number of health workers, supervisors, and managers, especially at the district level, and foster a greater sense of the ownership necessary to provide effective newborn interventions.
BOX IV.7 Promoting an integrated approach to HIV-free survival in Uganda

The Ministry of Health and partners in Uganda recognised that integration of HIV prevention with existing programmes for family planning, antenatal, childbirth care, postnatal care, and IMCI would benefit both HIV prevention and MNCH. The objectives of the integration strategy were to:

1. Develop tools and guidelines for planning, implementation, supervision, and monitoring & evaluation of the integrated approach
2. Strengthen the health system to deliver integrated MNCH and HIV/AIDS services within existing programmes
3. Document experiences of integration from the learning sites at various levels.

The process involved a technical working group that convened meetings with stakeholders engaged in child health, reproductive health, malaria, PMTCT, academics, professional organisations, and other development partners.

A needs assessment was undertaken at various levels:

National level: A supportive policy environment existed for integration, with many partners willing to get involved and technical capacity available, but there were no integrated training materials and no high level process to implement policies.

District level: There was a willingness to integrate, but teamwork was difficult across the programmes (reproductive health and HIV), capacity was inadequate for implementation of programme components, supervision occurred vertically, and data for reproductive health and PMTCT were received separately, without joint analysis.

Facility level: Family planning and postnatal care was a weak link in the chain, and infrastructure, personnel and inputs such as infection control supplies and essential drugs were inadequate in all facilities assessed.

Community Level: Communities were aware of the services provided but perceived them to be of poor quality, while many respondents lacked knowledge about services and healthy behaviours. Collaboration between providers and communities was inadequate. Gender based violence and lack of male involvement are ongoing challenges.

Achievements

• Established a coordination team to guide the implementation of integration activities and central trainers for training and supervision activities
• Finalised the integration of PMTCT, ANC, EmOC and postnatal care management guidelines, protocols, and training materials; revised integrated counseling booklet for pregnant women and initiated some postnatal care clinics
• Evaluated baseline data related to integration, and integrated PMTCT into the current health management information system

Challenges

• Poor collaboration among individual programmes for planning and sharing resources
• Maintaining confidentiality regarding HIV status when ANC and PMTCT registers are harmonised
• Weak postnatal care services
• No systematic implementation or evaluation is planned for the community interventions

Step 4. Monitor coverage and evaluate effect and cost

While scaling up services is crucial, increasing the availability and quality of information is equally as important in order to gauge progress and inform decision-making. A recent estimate suggests that the cost of scaling up a comprehensive integrated Health Management Information System is less than US$0.50 per capita.43 The selection of indicators for monitoring and evaluation depend on how the data will be used. The underlying purpose of data collection must be to monitor the increase of essential intervention coverage as well as its determinants and barriers. There are several choices that have to be made in the selection of indicators:
• Identify which indicators are needed to monitor implementation towards goals and objectives
• Decide how these selected indicators will be collected and how often, ideally using existing data collection systems
• Determine how to ensure systematic attention to equity assessment in addition to overall coverage

Data for action at the national level should be collected more frequently than through DHS every five years. Section I has already provided specific recommendations on how to make newborns count in district, national and global data. Data are often available, but not used for decision making. The country profiles included in this book provide a basic dataset for country use.

Table IV.3 lists indicators for tracking child survival through the MDG tracking, and core lists for child survival and reproductive health as well as the Countdown process, based on the first Countdown to 2015 meeting in December 2005.44 There is much common ground between these lists and one harmonised MNCH core list would be helpful to countries and to partners.

In addition to tracking deaths and coverage while keeping equity in mind, it is important to track human and financial resources. This is fundamental in holding leaders and partners accountable for commitments.45 For example, the target commitment of 15 percent of general government spending on health made by all African Union governments in Abuja provides a good framework for accountability.

Another important accountability mechanism is the Maternal, Newborn and Child Health (MNCH) Task Force for Africa. The MNCH Task Force began the Road Map and is now supporting the wider remit of MNCH, including linking with the African Framework for Child Survival and the Maputo Plan of Action for Sexual and Reproductive Health.

As well as addressing monitoring and evaluation gaps, it is important to address knowledge gaps in terms of applied health systems research – especially regarding adaptations to reach the poor with essential services.

Conclusion and call for integration and accelerated action

In many African countries, essential interventions reach less than half of women, babies, and children – yet thousands of lives could be saved with higher coverage. To accelerate progress, there is a need for systematic, country-owned decision making, improved partner collaboration, and phasing of priority interventions to build stronger health systems. A call for action should be driven by a sense of urgency to achieve higher coverage, especially for the poor (See Box IV.8). Competition between saving the lives of newborns, children, or mothers or between MNCH and other health priorities is a lose-lose situation: if one loses, all lose. The child starts as a newborn, and the survival of the newborn and healthy development of the child links to that of the woman. Integration of services along the continuum of care is a key foundation to accelerating action for MNCH and saving the lives of more mothers, newborn and children.
TABLE IV.3  Tracking reproductive, maternal, newborn and child health

<table>
<thead>
<tr>
<th>Indicators</th>
<th>MDG monitoring indicators</th>
<th>Reproductive health core indicators</th>
<th>Child survival consensus indicators</th>
<th>Countdown to 2015 indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome indicators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under-five mortality rate</td>
<td>●</td>
<td>A</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Neonatal mortality rate</td>
<td></td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant mortality rate</td>
<td>●</td>
<td></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Maternal mortality ratio</td>
<td>●</td>
<td></td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Perinatal mortality rate*</td>
<td></td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total fertility rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low birthweight prevalence</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Underweight prevalence</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Coverage of essential interventions indicators</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of female genital mutilation</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>HIV knowledge prevention practices</td>
<td></td>
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<tr>
<td>Contraceptive prevalence rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaemia in women of reproductive age (15 – 49)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of infertility in women (15 – 49)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obstetric and gynaecological admissions due to abortion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence of urethritis in men</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antenatal care coverage (one visit)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled attendant at childbirth</td>
<td>●</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Prevalence of syphilis in pregnant women</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of HIV in pregnant women</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus protection at birth</td>
<td></td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Emergency obstetric care (basic and comprehensive)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postnatal visit within 3 days of childbirth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antiretroviral course for PMTCT of HIV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timely initiation of breastfeeding (within one hour)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive breastfeeding (to 6 months)</td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Timely complementary feeding (6-9 months)</td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Continued breastfeeding (20-23 months)</td>
<td>●</td>
<td></td>
<td></td>
<td>●</td>
</tr>
<tr>
<td>Measles immunisation</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Diphtheria, pertussis and tetanus (3 vaccinations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilis Influenza B vaccination</td>
<td></td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Vitamin A supplementation</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Use of improved drinking water sources</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Use of improved sanitation facilities</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Insecticide treated bednet coverage for under-fives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimalarial treatment for under fives</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Care seeking for pneumonia</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Use of solid fuels for cooking</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Antibiotic treatment for pneumonia</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
<tr>
<td>Oral rehydration therapy (oral rehydration solution or appropriate household solution or increased fluids) plus continued feeding</td>
<td>●</td>
<td></td>
<td>A</td>
<td>●</td>
</tr>
</tbody>
</table>

Sources: MDG monitoring indicators from reference⁴⁶. The child survival consensus indicator list was developed by WHO and UNICEF, from reference⁴⁷. Reproductive health care indicators from reference⁴⁸.

Countdown to 2015 indicators from reference⁴⁵. The Countdown to 2015 conference focused more on child survival. Subsequent processes will include newborn and maternal and the indicators are being reviewed accordingly.

⁴⁶Suggested change to stillbirth rate.
BOX IV.8  Call for action to save Africa’s newborns

Call for action at national level
- By the end of 2007, produce and publish a plan of action to reach set national neonatal survival targets to be implemented within maternal health and child survival programmes and to be linked to the Road Map. This plan should be based on situation analyses, include a defined baseline NMR, be evidence based, and specify strategies to reach the poorest families
- Finance the implementation of the plan by identifying and mobilising internal resources, seeking external support where necessary
- Implement the plan with defined targets and timelines, phasing progress towards universal coverage of essential interventions
- Monitor progress and publish results regularly, linked to existing processes such as health sector review, with the involvement of civil society. Count every newborn and make every newborn count.

Call for action at international level
- Include NMR as an indicator for MDG 4, with a target of 50 percent reduction between 2000 and 2015. Publish national NMR in global, annual reports on an annual basis.
- Leverage resources to meet the additional needs identified (US$1.39 per person in Africa) in order to achieve high coverage of interventions
- Advocate for partner and donor convergence at country level, as promoted by the Partnership for Maternal Newborn and Child Health, in order to increase efficiency and reduce the reporting load on national governments
- Invest in health systems research for the “how” questions particularly regarding postnatal care, and in new research on stillbirths, and non-fatal outcomes around the time of birth

Challenges
- Perceived competition between newborn and maternal or child survival – a false choice, because if one loses, all lose
- Potential conflicts between community level and facility level interventions – another false choice, as both are required
- Maternal, newborn, and child health programmes experience a quiet, ongoing stream of 11 million deaths a year. Attention and funding remain inadequate for the task, lost in a world of emergencies such as Avian flu and HIV/AIDS
- Response to country requests for support to address newborn deaths has been slow and countries will not go on asking indefinitely

Source: Based on references 27–36 and adapted for Africa.
More information

- The Lancet maternal survival series 2006.

Programme and planning guides

- WHO and Saving Newborn Lives/Save the Children for the Healthy Newborn Partnership. Guide for situation analysis for newborn health in the context of MNCH. (Draft)
- UNFPA. Road Map step-by-step guide. (Draft)
- WHO/Making Pregnancy Safer. District planning guide. (Draft)
- UNICEF Saving Newborn Lives/Save the Children. Strategic guidance note on the newborn. (Draft)