**Status of Maternal Health in Zambia**

The Maternal Mortality Ratio (MMR) in Zambia has decreased from 729/100,000 to 449/100,000 live births during the period 2001-2007 (Zambia Demographic Health Survey 2007). This is a great achievement, however, more hard and collaborative work is needed to reduce it further. Several studies have shown that among the major causes of maternal deaths are direct obstetrical causes such as Haemorrhage (34%), Sepsis (13%), Obstructed labour (8%), Pregnancy hypertensive disorders (5%), Abortion complication and (4%). Indirect causes are Malaria (11%), HIV (10%), Others (17%). The major factors contributing to Maternal Mortality are: delay in making decision to seek health care, delay in getting to the health facility for care and delay in receiving attention once in the health facility.

Out of the total population of 11.5 million, 23% are in the child bearing age (15-49 years). The Total Fertility Rate (TFR) is 6.2. HIV prevalence is 14.3%. Antenatal attendance is 93% but institutional deliveries are still below 50%. Coverage by midwives is 50%. met need for emergency obstetric and neonatal care is only 9% and 46 % of deliveries are institutional. Caesarean Section rate is 2% and there is low coverage for youth friendly services to undertake and improve reproductive health services.

**KEY INTERVENTIONS**

**EMERGENCY OBSTETRIC AND NEONATAL CARE (EMONC) SERVICES**

Emergency Obstetric and Neonatal Care (EmONC) refers to care given to women experiencing complications occurring during pregnancy, labour and immediately after childbirth that will threaten the life of the mother and newborn unless timely and effective intervention(s) is/are instituted. In Zambia skilled professionals with obstetric care knowledge and skills to attend to every pregnancy and delivery are not sufficient. Gaps also exist in infrastructure, transport and supplies including quality of services. The Ministry of Health has set up two emergency obstetric care training centres for training of service providers and training is ongoing. These sites are the University Teaching Hospital and Ndola Central Hospital.

Following the EmONC Needs assessment done in 2005, it was found that EmONC services are poor in the country. Therefore the government has embarked on a program to strengthen both Basic and Emergency Obstetric Care Services. The program is in four phases. Eighteen districts will be assessed and strengthened each year for the next four years starting 2007. Currently over thirty districts have been assessed and are having the services strengthened.

Basic EmONC provides the following signal functions: Parenteral antibiotics, parenteral Oxytocics, parenteral anti-convulsant, manual removal of placenta, manual vacuum aspiration of retained products of conception (incomplete abortion) and assisted vaginal delivery (using Vacuum extractor). Comprehensive EmONC services include all the Basic EmONC functions, blood transfusion and Caesarean Section services. A reliable and efficient referral system i.e. appropriate transport and communication modalities, availability of essential drugs and supplies, basic equipment, blood transfusion services and operative delivery procedures are critical requirements for EmONC.

Ongoing efforts to strengthen EmONC, include purchase of equipment by the Government and other stakeholders, infrastructure rehabilitation including mother’s shelters is ongoing. Water reticulation issues are being addressed in some facilities. Trainings for EmONC have been done for the selected sites.

**Maternal Death Reviews (MDR) Scale up**

The Maternal Death Review initiative investigates the factors that contributed to a maternal death from the health facility to the community. In so doing, it helps in identification of specific gaps in the provision of services making interventions more targeted. Initially, a pilot study was done in 4 provinces which culminated in a dissemination workshop supported by UNICEF. The pilot showed that MDRs were helpful in identifying specific areas contributing to maternal mortality. Subsequently the Ministry supported by UNICEF scaled up to all the remaining five provinces. The MDR committees are formed at three different levels namely the province, the district and the community. Plans are underway to make maternal deaths notifiable. This will make the MDR initiative more effective.

**Safe motherhood Action Groups (SMAGS):**

SMAGs have been formed in 24 districts around the country. The main objective of the SMAGs is to sensitize communities on danger signs in pregnancy, the importance of delivering in health facilities and importance of family planning or any other important health issues such as information on PMTCT. The SMAGs comprise Community Based Agents (CBAs) including Traditional Birth Attendants (TBAs), Community Health Workers (CHWs), Neighbourhood Health Committee (NHC) members, Community Based Distributors (CBDs) and other responsible members of the community.

SMAGs will be a link between the health facility and the community and therefore facilitating the continuum of care. Communities around EmONC sites are being covered as a first priority.

**Prevention of Mother To Child Transmission Of HIV**

The goal of the Ministry of Health is to extend PMTCT and Paediatric HIV prevention, care, support and treatment services to 80% of the expectant mother population and to 80% of HIV exposed and infected children by 2010. In order to achieve this, scale up of services to its full integration within all MCH services is required, with provision of quality assured comprehensive pMTCT services which include:

- routine HIV testing of pregnant women by “opt-out” approach
- testing of their partners and other family
members with an emphasis on provision of “family centered care”
• Screening for and management of other co-morbidities and opportunistic infections such as Anemia, Malaria, Sexually transmitted infections and Tuberculosis
• Counseling on infant feeding, safe sex practices and family planning.
• Provision of family planning methods with promotion of double protection
• Provision of ARVs to the mother for pMTCT prophylaxis as well as for her own health if in need
• Provision of ARVs to the baby for pMTCT prophylaxis
• Early infant diagnosis through PCR at 6 weeks
• Cotrimoxazole prophylaxis to all HIV exposed infants
• Referral links to treatment care and support for both mother and infant

PMTCT services need to be supported and enhanced through engagement of the community. Furthermore, there is need to ensure that all PMTCT sites are available at any one time and have active provider-initiated counseling and testing in place for children from all entry points. Access to DBS testing services and an effective referral system for referral of children to ART services will ensure achievement of 80% of HIV infected children in need being put on ART.

Family planning (FP)
The Total Fertility Rate in Zambia 6.2 (A woman will give birth to an average of 6.2 children during her reproductive years). In 1980 it was 7.2. In Zambia Family Planning services are mostly through health facilities and to a lesser extent in the community. Other outlets include Social Marketing and private pharmacies. Contraceptive use in Zambia is low, at 41%, only 33 percent are using a modern method. Currently the focus is to increase the use of long term and permanent methods which are the least used. The focus is on training providers in the rural areas where there is a high unmet need is higher.

Much work has also gone into reorienting health providers to the newly updated Family Planning Guidelines and Protocols. The newly updated guidelines have shed some light on some of the contentious issues such as use the IUCD in HIV positive women and issues of drug interactions between ARVs and hormonal contraceptives. Plans have also been initiated to decentralise permanent methods, specifically minilap to selected health centres through outreach and by working with the private sector. Other materials produced include a family planning video on dual protection for HIV positive clients. This was developed in conjunction with the Health Communication Partnership (HCP) project.

In conjunction with partners the MOH has conducted forecasting of contraceptive needs for period 2008-2010 and a procurement plan has been drawn

Obstetric fistula prevention and treatment
Obstetric fistula is an abnormal passage between the vagina and the bladder or rectum often caused by Obstructed Labour. Zambia is a beneficiary of the UNFPA Obstetric Fistula Global Initiative to Prevent and treat Obstetric Fistula. Obstetric Fistula is preventable. The Ministry Of Health with support from UNFPA did the study which shows that there need to increase services to treat women with fistula. A Centre of excellence to Prevent and Treat Obstetric Fistula was established at the University Teaching Hospital and satellite centres were also identified and supported with equipment and supplies. This year alone 147 cases have been treated at the three sites which are St Francis Hospital in Katete, Monze Mission Hospital and the University Teaching hospital.

Reproductive Health Commodities Security (RHCS) Committee
The above committee was formed in 2007 to advocate for security in reproductive health commodities. The RHCS committee focuses in the following areas: Enhance capacity and facilitate development of sustainable procedures and mechanisms to meet the challenges of RHCS at national level; Advocate for increased national funding and political commitment, Mobilize resources for commodities, Help promote strategic support for RHCS; Secure more regular and dependable funding flows to achieve durable RHCS at national level. Through the recommendation of the RHCS committee, a separate budget line for Reproductive Commodities has been established and approximately 2.9 Billion Kwacha has been budgeted for reproductive health commodities this year. Through this committee, family planning commodities such as Jadelle has been procured for the Ministry by USAID and UNFPA. Both organisations have also procured condoms for the Ministry. The Ministry has procured Oralcon F contraceptive.

Cancer of the cervix
The Ministry of health in collaboration with the WHO is piloting screening of cancer of the cervix by means of Visual Inspection using Acetic Acid (VIA). The pilot is almost completed. This will be followed by dissemination and scale up. Initial reports indicate that the program has been well received by the Kabwe community.

Challenges
• Inadequate funds for procurement of reproductive health commodities such as contraceptives and equipments
• Provinces not transmitting stock data to central level even after being requested
• Inadequate human resources
• Weak referral systems
• Misallocation of skilled staff
• Inadequate infrastructure, equipment and supplies
• Long tender procedures

Way forward
• Continue scale up of the EmONC program
• Continue scale up of PMTCT as an integrated FANC program
• Improve monitoring and evaluation
• Scale up of the SMAGs initiative
• Scale up MDR to the rest of the districts in the pilot provinces as not all the districts were used during the pilot program
• Follow up and supervision of MDR in the provinces and districts
• Rapid scale up of the remaining districts in the provision of Jadelle and IUCD
• Strengthening of permanent methods such as bilateral tubal ligation
• Strengthen Logistics management system of FP/selected RH commodities
• Scale up of screening of cancer of the cervix
The United Nations Millennium Development Goals are eight goals that all 191 UN member states have agreed to achieve by the year 2015. The United Nations Millennium Declaration, signed in September 2000 commits world leaders to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. The MDGs are derived from this Declaration, and all have specific targets and indicators.

The Eight Millennium Development Goals are to:

1. Eradicate extreme poverty and hunger;
2. Achieve universal primary education;
3. Promote gender equality and empower women;
4. Reduce child mortality;
5. Improve maternal health;
6. Combat HIV/AIDS, malaria, and other diseases;
7. Ensure environmental sustainability; and
8. Develop a global partnership for development.

According to the 2005 data, few developing countries are on track to achieve MDG 5. In 56 of the 68 priority countries where 98% of maternal deaths occur, mortality ratios are still high (> 300 maternal deaths per 100,000 live births).

The global maternal mortality ratio stands at 400 maternal deaths per 100,000 live births, compared to 430 in 1990. The annual decrease of less than 1% on the average is far below the 5.5% annual decline, which would be required to achieve MDG 5. At a regional level, none of the MDG regions achieved 5.5%, although Eastern Asia comes close with a 4.2% annual decline. In sub-Saharan Africa, where maternal mortality is highest, the annual decline has been approximately 0.1%. However, owing to high uncertainty margins for MMR, it is difficult to state whether there is any real decline at all.
### Millenium Development Goals

#### ZAMBIA

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<th>GOALS AND TARGETS</th>
<th>Will Target be met?</th>
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<td><strong>MDG 1: Extreme poverty</strong></td>
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<td><strong>Target 1:</strong> Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.</td>
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<td><strong>MDG 1: Hunger</strong></td>
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<td><strong>Target 2:</strong> Halve, between 1990 and 2015, the proportion of people who suffer from hunger.</td>
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<td><strong>MDG 2: Universal Primary Education</strong></td>
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<td><strong>Target 3:</strong> Ensure that, by 2015, children everywhere, boys and girls alike, will be able complete a full course of primary schooling</td>
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<td><strong>MDG 3: Gender equality</strong></td>
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<td><strong>Target 4:</strong> Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015</td>
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<td><strong>MDG 4: Child Mortality</strong></td>
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<td><strong>Target 5:</strong> Reduce by three quarters, between 1990 and 2015, the under-five mortality rate</td>
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<td><strong>MDG 5: Maternal Mortality</strong></td>
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<td><strong>Target 6:</strong> Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio</td>
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<td><strong>MDG 6: HIV/AIDS</strong></td>
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<td><strong>Target 7:</strong> have halted by 2015, and begun to reverse, the spread of HIV/AIDS</td>
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<td><strong>MDG 6: Malaria &amp; other major diseases</strong></td>
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<td><strong>Target 8:</strong> Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases</td>
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<td><strong>MDG 7: Environmental sustainability</strong></td>
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<td><strong>Target 9:</strong> Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources</td>
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<td><strong>MDG 7: Water &amp; sanitation</strong></td>
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<td><strong>Target 10:</strong> Halve, by 2015, the proportion of people without sustainable access to safe drinking water</td>
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Martha Akalimikwa, aged 45 and a mother of three, two girls and a boy, decided to take up the voluntary profession of traditional birth attendant after she underwent a difficult labour herself and delivered at home.

Unfortunately, her baby, a beautiful girl, did not survive. She died upon arrival at the District Hospital. The circumstances that led to Martha delivering at home are not strange to anyone living in a rural district like Lukulu.

Lukulu is one of the seven districts in the Western part of Zambia. The district has a population of about 68,373. Women make up the majority of the population and also suffer the burden of poverty, disease and unemployment.

Martha has been a Traditional Birth Attendant (TBA) for the past 23 years. Her work is valued and appreciated by community members that benefit from her services. In the absence of maternal health services as close to the household as possible, the role of Martha and many other TBAs in providing health care services is very critical.

Catherine Mwambwa, also a TBA in Lukulu and aged 53 decided to take up this noble profession because she wanted to assist women like Martha and others in her community.

She describes this as a life of sacrifice.

Catherine was selected by members of her community because she is respected, mature and as such expected to uphold the principles of confidentiality. In addition to her job in the community, Catherine is in-charge of the Primary Health Care Unit (PHCU) in Kankwilimba Community in Simakamba area. This is an occupation valued and appreciated by community members that benefit from her services.

“I am on duty 24 hours. When an expectant mother is in labour, I am informed immediately by her husband or family members. When that happens, I have to stop attending to any other house chores, rush to where my services are needed and stay there until the woman delivers,” Catherine explained.

The health of mothers in most rural districts like Lukulu is desperate. And in Lukulu, the situation is even worse with only eleven Government and two mission health facilities serving such a larger population. This situation is compounded by inaccessible roads and long distances to health facilities which make the status of women’s health even more precarious. The uneven distribution of the homesteads makes it difficult for the people to access the available health facilities.

The point to note and appreciate is that the life and work environment of a TBA is not an easy one. It is very challenging especially in situations where the TBA lacks basic requirements such as clean water, razor blades and cotton wool to ease their work.

In an effort to assist TBAs, the Government through the Ministry of Health has been implementing a package of interventions by providing delivery kits, bicycles to assist TBAs reach hard to reach areas and training. These deliberate efforts have made it easier and manageable for TBAs to conduct their noble work of providing safe maternal health services to women in localities riddled with high poverty levels prevailing in the area. The poverty situation disadvantages the women even more and makes it
difficult for them to access transport and get to a health facility.

Martha’s and Catherine’s spirit of voluntarism, dedication and passion has contributed significantly to the country’s improved maternal, newborn and child health situation. The Government has made huge investments in the provision of maternal health services.

Some of these measures being implemented by the Ministry of Health include the following:

(a) Provision of free maternal health services during antenatal clinics (Family Planning, Voluntary Counselling and Testing, Intermittent Preventive Treatment)
(b) Formation of the Maternal, Newborn and Child Health (MNCH) partnership
(c) Provision of Mother to Child Transmission of HIV (PMTCT) services in 678 health facilities countrywide
(d) Implementation of comprehensive emergency obstetric care in 30 districts in the country
(e) Implementation of the annual child health week activities by all the 72 districts
(f) Provision of Insecticide Treated Mosquito Nets (ITNs) to pregnant women, children under five and the chronically ill persons, and
(g) Annual trainings for TBAs

The contribution by Government and its partners is commendable but more needs to be done. The District Health Office ensures that it conducts annual trainings for TBAs to keep them abreast with the requirements of their work and maintain the number of trained TBAs.

Mr. Mark Mutozi, Officer In-Charge and Health Promotions Focal person at Simakamba Rural Health Centre feels the number of trained TBAs is not adequate though trainings are conducted every year.

“We conduct trainings every year but we still need more because the some of the trained TBAs got married and have moved to others areas, while others move when their spouses are transferred to other towns or districts,” Mr. Mutozi lamented.

Asked about what type of assistance TBAs like herself would require, Catherine requested for delivery beds, beddings and lighting devices and commodities such as lamps, torches and paraffin at the PHCU level. She also appealed to the Government to provide TBAs with bicycles suitable for females and delivery-kit items.

The community in areas like Lukulu have been helpful and supportive. In Catherine’s case, the community supports her by harvesting and cultivating her field, donating food and sometimes even performing household chores such fetching water and sweeping.

Perhaps what is striking about Catherine is that she understands the need for reliable and effective communication in her line of duty. “We have been advised by the DHMT that when complications arise and we are unable to deliver, a note should be written and quickly sent to the Rural Health Centre,” she explains.

Although Catherine’s and Martha’s contributions in an urban setting may seem insignificant, their role in contributing to delivery services in the country is vital for some communities. With only half of the deliveries in the country occurring in health facilities, we may be a long way from having our ideal of having every delivery attended by a skilled health worker. TBAs such as these offer us a stop gap measure with their great passion and dedication.

Therefore, holding the first ever Zambia Countdown to 2015 Conference gives implementers and other stakeholders an opportunity to assess progress towards the attainment of the two health-related MDGs four and five that are aimed at reducing child mortality and improving maternal health respectively.

Dr. Victor Mukonka, Director of Public Health and Research in the Ministry of Health is hopeful that the two health-related MDGs will be attained.

“There is need to sustain the gains and continue with more efforts to further improve maternal, newborn and child health,” Dr. Mukonka states.

Reports show that Zambia has performed remarkably well. However, Implementers should not relent in their efforts. The onus is on the Ministry of Health, partners and the community to reduce child and maternal deaths by two-third and three-quarters respectively by 2015.

In areas like Lukulu and many other rural areas in the country, the role of TBAs is important in contributing to delivery services in Zambia. Yes, volunteers like Catherine and Martha need respect, recognition, motivation and above all everybody’s support.
Zambia has an Under-five Mortality Rate (U-5 MR) of 168 per 1,000 live births, an Infant Mortality Rate (IMR) of 95 and Neo-natal Death Rate (NNDR) of 37 per 1,000 live births (ZDHS 2001-2002). The major causes of child mortality are malaria, respiratory infection, diarrhoea, malnutrition and anemia. HIV/AIDS is increasingly contributing to morbidity and mortality in children.

Malnutrition has increased and is attributed to the worsening poverty levels and increase in food insecurity as well as suboptimal infant and young child feeding practices. According to available statistics, 70% of the population are food insecure, 47% of children are stunted, 28% are underweight, while 5% are wasted (ZDHS 2001-20). These rates are among the highest in the region.

Under the 2001-2005 NHSP, various child health interventions/strategies were implemented. These included promotion and support for nutrition, immunization and management of common childhood illnesses. Immunization coverage in Zambia is higher than in most Sub-Saharan African countries, with coverage rates for measles, DPT3 and polio in the range of 80-85% and BCG at above 90% of the eligible populations. Full immunization coverage in 2004 stood at 77% (Economic Report 2004).

Although child mortality rates were decreasing from 1955 to 1980, a progressive increase was noted between 1980 and 1999. However, there is an indication of a slight decrease between 1996 and 2002. During the period from 1992 to 2002, the U-5 MR declined by 12%, from 191 to 168 per 1,000 live births, while IMR declined by 11% from 107 to 95 per 1,000 live births (ZDHS 2001/2). Despite these decreases, the current child mortality rates are still unacceptably high. In this respect, Zambia is committed to reducing child mortality by two thirds (to 63/1000 live births) in 2015, from the 1990 figures as per the MDGs.

Since the late 1970s, Zambia has been providing immunization services. During this period, a number of successes have been scored in terms of curbing vaccine preventable diseases. Among the notable successes was the inclusion of Pentavalent vaccine namely DTP-Hib-Hep B to the immunisation schedule. Recognizing that pneumonia is increasingly becoming a major cause of morbidity and mortality in children under the age of five years, the Ministry is currently providing vaccine financing for traditional vaccine and co-financing with support from GAVI for procurement of pentavalent vaccine significantly high.

In the recent years, Zambia has managed to achieve Polio free status through high immunisation coverage and strong surveillance systems for Acute flaccid Paralysis. Through routine immunization and Supplemental Immunisation activities, measles incidence as well as mortality has been significantly reduced to very low levels. Maternal neonatal tetanus elimination has been achieved by the country after verification through a validation exercise that was conducted in late 2007.

Expanded Program of Immunisation has been in existence for a long time. Although improvements have been noted in child health there are constraints in achieving high impact on immunisation coverage and these include the inadequate coverage of effective child health interventions and the poor quality of services provided. The major reasons for the above constraints include the critical shortage of skilled staff, weak infrastructure and inadequate funding for child health interventions. It is envisaged that during the life of this strategic plan, child health will be a key agenda item both globally and nationally.

The challenge for the health sector is to accelerate implementation of effective child survival interventions in the country, targeting the needy areas. Programs and strategies for child health need to be accelerated and these include, immunization, management of childhood infections and newborn, nutrition promotion should significantly be scaled-up. Equally important is the strengthening of school health programmes.

Objective for Child Health (NHSP 2006-2011)
To reduce Under-5 mortality by 20%, from the current level of 168 per 1,000 live births to 134 by 2011.

Strategies
1. Scale up and strengthen community and facility based Integrated Management of Child Illnesses (IMCI) strategy in all districts;
2. Improve care for severely sick children at all district hospitals;
3. Strengthen the Expanded Programme for Immunisation (EPI) in all districts;
4. Strengthen the care of new born babies in communities and all health facilities;
5. Promote and strengthen the involvement of the private sector in child survival programs;
6. Strengthen mechanisms for regulation and coordination of nutrition;
7. Promote appropriate diets and lifestyles, including appropriate exclusive breast feeding, dietary...
diversification, supplementation and expansion of micro-nutrient fortification of major food commodities; and
8. Facilitate the strengthening and expansion of the school health program in the country.

The Ministry of Health has taken responsibility to procure traditional vaccines with support from JICA. In addition, Ministry of Health is contributing significantly to the procurement of new vaccines with support from GAVI. The immunisation programme has been using safe injection materials for administration of immunisation services since its inception. (Auto disable syringes have been in use since 2003).

About 45% of existing cold chain was recently replaced with support from partners (JICA) to ensure quality service delivery for the immunisation programme.

Major achievements have been scored in the immunisation programme and these include attainment of Polio Free Certification after having conducted polio campaigns and continued attainment of high immunisation coverage. Surveillance for Acute flaccid paralysis has been significantly strengthened. Maternal neonatal tetanus has been eliminated and tetanus immunisation is being given to pregnant women, while in areas of high risk the target groups have been broadened to include women of child bearing age. Through measles supplemental activities (campaigns) there has been significant reduction of measles cases as well as deaths, contributing to the attainment of the goal, and will ensure 90% reduction in the African region before the targeted time. Below is a table showing the performance for different immunizations.

### New vaccines

Considering that pneumonia is becoming a more significant cause of morbidity in children under the age of five in the country, the Ministry of Health intends to introduce the Pneumococcal vaccine on the immunisation schedule in the near future.

### Child Health days

Child Health activities provide eligible children an opportunity to receive multiple interventions twice a year. These activities have been implemented successfully by all districts. The districts have further taken ownership by incorporating child health activities in their Action Plans. The package of interventions includes vitamin A supplementation, de-worming, immunizations, growth monitoring, ITN re-treatment, chlorine distribution and sensitizations.

### Integrated Management of Childhood Illness (IMCI)

Currently, all 72 districts in the country are implementing IMCI both at the community and health facility level. Health systems strengthening, is a cross cutting issue and is being addressed through MOH and partner support in order to strengthen communication, referral and logistical supplies (drugs, vaccines e.t.c). The training has been reduced to 7 - 8 days (abridged course from the standard 11days training). The proportion of districts with adequate saturation levels of trained staff still remains a challenge (just above 50% of districts with at least 60% of health workers trained in IMCI case management of sick children). This year’s plans will include strengthening of supervisory skills to staff trained in case management by provinces and districts as well as increased training of health workers to ensure the districts approach the target of 60% health workers managing sick children are trained.

Pre-service training of IMCI has already began with selected schools training students in IMCI, this is a way of ensuring increased output of trained staff as well as continuation of trainings as capacity will be built in schools.

Community IMCI which emphasizes the promotion of 16 key family /community practices has been piloted in nine districts (provincial districts).

Continuous training for both community health workers and health workers in facilities has continued with district support from their action plans. The challenge is the lack of community Health Management Information System (HMIS) in Ministry to monitor community activities. In addition, ownership of research data is lacking. In most cases, partners supporting community IMCI have tended to have authority on data collected in the country. The other challenge has been the supply of Community Health Worker Kits to support the implementation of activities at the community level. The area of newborn care at the community level has been recognized as a potential for reduction of Under-five mortality. As such, home-based newborn care activities have been introduced in two districts. The phases approach will assist the ministry decide on whether community health workers can implement these activities.

More recently guidelines have been adapted to include new diarrhea management practices, HIV/AIDS and newborn care. This is in line with inclusion of updates in response to disease burden and provision of a comprehensive package of services particularly at the lower levels of health service provision.

### Paediatric HIV Care Services

Zambia launched its Paediatric HIV care programme in 2004, and as of December 2007, there were 320 facilities out of the total 1281 health institutions providing the services across the 72 districts in all the 9 provinces of Zambia. The majority of these facilities are mostly along the line of rail and urban centres resulting in geographical inequity. In 2007 the need to scale-up was recognized, and a National Scale-up Plan 2007-2010 was developed. The joint coordination body “Prevention of mother-to-child transmission of HIV and Paediatric HIV care Technical Working Group (TWG) was also revived at national level. Other major results achieved include development of National Guidelines and ART training package for care of children living with HIV and the revision of the under-five child health card to include maternal and infant HIV status. To support acceleration of the scale-up
process, a proposal for UNITAID commodity support to ensure availability of necessary supplies (rapid test kits, ARVs, cotrimoxazole and consumables for CD4 testing and PCR) was prepared in collaboration with stakeholders.

The Ministry of Health (MoH) in collaboration with its partners have put up three Polymerase Chain Reaction (PCR) referral laboratory centres for early infant HIV testing at the University Teaching Hospital (UTH), Kalingalinga Health Centre and Ndola’s Arthur Davison Hospital. Dry blood samples (DBS) collected national-wide from infants as early as six weeks are referred to the three referral laboratories using an established courier system. Although the capacity for early diagnosis is being developed, it is still largely confined to urban centres.

While access to anti-retroviral therapy (ART) for adults has dramatically increased in the last few years, it is not the same for children. Although the number of children on antiretroviral has increased over the past one year to over 12,000, this is still far much less from the target of 40,000 in need of treatment. Below the figure shows the number of children on Anti retroviral Therapy.

The table below shows a summary of indicators that have been proposed by international partners to track progress towards the attainment of millennium development goals for child survival. Most of the indicators relate to activities at community level and currently can be obtained through special surveys such as the Demographic Health Surveys, or reports from UNICEF or the World Bank. Zambia has just conducted the Demographic and Health survey and preliminary results indicate progress made in reduction of under five mortality rate from 168 deaths per 1000 live births to 119 deaths per 1000 live births.

Challenges

The main challenges facing implementation or rolling out of child survival interventions include the acute human resource crisis both the numbers and appropriate skills, health system barriers such as transport for outreach activities, and inadequate resources, and weak community health care support systems to support child survival.

Solutions or Way forward

Addressing the above problems would definitely contribute to improved child health care service delivery. The table below shows a summary of indicators that have been proposed by international partners to track progress towards the attainment of millennium development goals for child survival. Most of the indicators relate to activities at community level and currently can be obtained through special surveys such as the Demographic Health Surveys, reports from UNICEF or the World Bank. Zambia conducted the Demographic and Health survey and preliminary results indicate progress made in reduction of under five mortality rate from 168 deaths per 1000 live births to 119 deaths per 1000 live births.

Reaching the MDG on reducing child mortality will require universal coverage with key effective, affordable interventions: care for newborns and their mothers; infant and young child feeding; vaccines; prevention and case management of diarrhoea, pneumonia and sepsis; malaria control; and prevention and care of HIV/AIDS. In countries with high mortality, these interventions could reduce the number of deaths by more than half.

To deliver these interventions, WHO promotes three main strategies:

- Integrated Management of Childhood Illness
- Expanded Programme on Immunization
- Infant and Young Child Feeding.

Attention to newborn health is being increasingly incorporated into each of these delivery strategies, complemented by interventions aimed at making pregnancy safer.
**Millennium development goal child health indicators for Zambia**

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<tbody>
<tr>
<td><strong>Neonatal mortality rate (per 1000 live births)</strong></td>
<td>40**</td>
<td>36.1**</td>
<td>37**</td>
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<tr>
<td><strong>Infant mortality rate (per 1000 live births)</strong></td>
<td>97*</td>
<td>90*</td>
<td>107**</td>
<td>109**</td>
<td>95**</td>
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<tr>
<td><strong>Under five Mortality Rate(per 1000 live births)</strong></td>
<td>179**</td>
<td>167*</td>
<td>191**</td>
<td>197**</td>
<td>168**</td>
<td></td>
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<td>119</td>
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<tr>
<td>Prevention and Immunisation (%)</td>
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<tr>
<td>Vitamin A supplementation</td>
<td>50***</td>
<td>66***</td>
<td>66***</td>
<td>88****</td>
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<tr>
<td>DPT3</td>
<td>55</td>
<td>80****</td>
<td>94****</td>
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<td>Pentavalent 3</td>
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<td>Hib 3</td>
<td>97</td>
<td>92****</td>
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<tr>
<td>Measles</td>
<td>84</td>
<td>81</td>
<td>79</td>
<td>90</td>
<td>97****</td>
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<td><strong>Use of improved drinking water sources (piped/covered well or borehole)</strong></td>
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<td>21.3**</td>
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<td>ITN usage among children under five the previous night (%)</td>
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<td>6.5**</td>
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<td>22.8</td>
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<td><strong>Use of ITNs among pregnant women among pregnant women the previous night</strong></td>
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<td>Febrile children who received antimalarial treatment according to the national treatment policy within 24 hours (%)</td>
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<td>Intermittent Preventive Treatment (IPT) for pregnant women through ANC visits</td>
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<td>Care seeking for suspected pneumonia</td>
<td>?</td>
<td>?</td>
<td>61.7**</td>
<td>70.6**</td>
<td>69.1**</td>
<td>69***</td>
<td>69***</td>
<td>?</td>
<td>68.2</td>
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<td>ORT (Increased fluids with cont’d feeding for diarrhoeal diseases)</td>
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<td>?</td>
<td>45.6**</td>
<td>57.6**</td>
<td>66.9**</td>
<td>48***</td>
<td>48***</td>
<td>48***</td>
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<td>Anti-malarial treatment</td>
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<td>?</td>
<td>51.1**</td>
<td>?</td>
<td>51.9**</td>
<td>52***</td>
<td>58***</td>
<td>58***</td>
<td>38.4</td>
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<tr>
<td>Care seeking for fever (malaria)</td>
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<td>62.8</td>
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<td>Co-trimoxazole prophylaxis for HIV exposed children</td>
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**Trends in number of children on ART**
(Source: MoH, December 2007)