

Investing in Survival: Enhancing the Neonatal Intensive Care Unit of Yekatit 12 Hospital

A Final Report for UNICEF's Next Generation November 2013

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We are grateful for your generous partnership with UNICEF to transform the future of children in Ethiopia. Because of your generosity, UNICEF has continued the scaling up of effective maternal, neonatal and child health interventions in Ethiopia. UNICEF's Next Generation raised \$150,000 towards this project— a truly amazing feat. Thank you.

Current Situation of Ethiopia's Vulnerable Children and Women

Ethiopia has a total population of 79.8 million according to a 2010 estimate. About 83.6 percent of the population lives in rural areas. Of the total population, 44 percent are under 17 years; over 52 percent are between 16-65 years, with only three percent over 65 years of age.

In Ethiopia, despite the progress in child health over the past decades, nearly 250,000 children are dying every year before reaching their fifth birthday; about one fourth of these are newborns who die of birth asphyxia, infection, prematurity and low birth weight. The main causes of under-five mortality were pneumonia, diarrhea, malaria, neonatal complications, malnutrition, HIV/AIDS and others. The neonatal mortality rate in Ethiopia is high and has remained stagnant. Until very recently, newborns received very little programmatic attention from the health system. Following advocacy efforts by UNICEF and other partners, newborn health is now one of the government of Ethiopia's priorities in the 2010-2015 National Fourth Health Sector Development Plan.





Between 2005 and 2011, the under-five mortality rate decreased by 28 percent from 123/1,000 live births to 88/1,000 live births. However, the neonatal mortality rate remained roughly the same level - 39/1,000 live births in 2005 and 37/1,000 live births in 2011. Given that 90 percent of child births still take place at home, UNICEF is supporting the provision of essential neonatal care at the community level through Health Extension Workers program. Realizing that neonatal care at health facilities was critical for neonatal mortality reduction, UNICEF, in partnership with the Ethiopian Pediatrics Society and the Federal Ministry of Health, has established Newborn Corners in primary health facilities in recent years.

Health Extension Workers are trained to treat common childhood illnesses such as diarrhea, pneumonia, malaria and severe malnutrition. However, severe cases with newborn complications need to be referred to health facilities for advanced care. There is a critical shortage of skilled neonatologists in the country, with only three academically trained neonatologists in Addis Ababa serving the entire country. To address the lack of referral institutions for sick newborns, the government of Ethiopia constructed a neonatology unit, the first of its kind in Ethiopia, at the Yekatit 12 Hospital, one of the public referral level hospitals in the capital, Addis Ababa. To complement the Federal Ministry of Health's effort, UNICEF is currently supporting the establishment of the neonatal intensive care unit as a center of excellence at Yekatit 12 Hospital. Similarly, the establishment of a neonatal intensive care unit is being supported at Gondar Hospital, Amhara Region. In the near future, UNICEF seeks to support the establishment of neonatal intensive care units at 10 teaching and referral hospitals to further scale up advanced neonatal care in various parts of the country.





Left: Ababay, holding her sick baby Kaldian in the Neonatal Intensive Care Unit, Yekatit 12 Hospital Right: Yekatit 12 Hospital © UNICEF Ethiopia



UNICEF in Action

UNICEF remains one of the main implementing partners for the neonatal intensive care unit renovation project. The project is building the capacity of health workers in their work environment and improving the knowledge, practice and skills of key neonatal health services in Yekatit 12 Hospital. Yekatit 12 Hospital, Neonatal Intensive Unit will be upgraded and strengthened as a center of excellence for advanced neonatal care as well as the first standard training site for neonatal intensive care in Ethiopia for all levels of health care providers including medical doctors, nurses and midwives.

With your generous partnership, UNICEF supported the establishment of the standard neonatal intensive care unit at Yekatit 12 Hospital as a model for top notch institutionalized neonatal care in Ethiopia. The objective of the project is two-fold:

- To establish a center of excellence for intensive care for sick newborns (Newborn Intensive Care Unit (NICU)) at Yekatit 12 Hospital, Addis Ababa, Ethiopia.
- To ensure the availability of and access to advanced care for sick newborns who require referral.

Impact of Your Investment

1) Establishing and equipping the neonatal intensive care unit

Thanks to your support, UNICEF's Investing in Survival: Enhancing the Neonatal Intensive Care Unit of Yekatit 12 Hospital Project has already achieved success in the procurement of NICU-related supplies and commodities necessary in furnishing the newly completed NICU at the hospital. UNICEF's Next Generation's commitment to ensuring the health and safety of newborns born in the Yekatit 12 Hospital, equipped the unit with critical life-saving equipment to help them during their first weeks of life. The tables on the following page are a brief illustration of the tremendous impact your gift has made through the provision of needed medical tools and apparatuses, enhancing unit capacity.





Table 1 – List of NICU Supplies provided for Yekatit 12 Hospital by UNICEF's Next Generation

Item Description	Quantity
Phototherapy Unit	3
Incubator	2
Infant Resuscitation Table	2
Pulse Oximeter (to measure oxygenation	2
of haemoglobin)	
Desk Light for Examination	3
Phototherapy Irradiance Meter	1
Baby Scale (electronic)	4
Thermometer (digital)	35
Stethoscope	35
Sterilizing Drum	6
Nasal Oxygen Prongs	100
Adhesive Tape (rolls)	15
Feeding Tube (various sizes)	1,100
Baby Cots	5
Suction Pump	2
Hemocue Analyzer Set (for measurement	4
of hemoglobin)	
Bilirubin Meter (for measurement of	1
bilirubin/jaundice level)	
Micro Cuvettes	3
Infant Nasal CPAP System (for	20
ventilation/breathing machine)	
Three Way Connections (for exchange	300
transfusion)	
Umbilical Catheter (neonatal)	100
Steam Sterilizer	1
Room Heater	12
Oxygen Concentrators	4
Infusion Pump	2
Syringe Pump	2
Hospital Bed for Mothers	20
Oxygen Hood	1

Table 2 – Supplies provided by UNICEF's Next Gen to establish a Computer-based birth registration system in the NICU at Yekatit 12 Hospital

Item Description	Quantity
Desktop Computers (DELL)	4
Printer HP 4250	1
LCD Projector	1



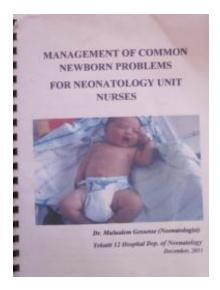
The government of Ethiopia invested 10.5 million birr (US\$ 620,000) towards the construction of the new five-story building for Maternal Newborn and Child Health (MNCH) services, on the premises of the hospital. In this MNCH building, the first floor space was allocated to the neonatology unit, and the construction of the unit was completed in December 2012. On the first floor, rooms were allocated to the neonatal intensive care unit, a neonatal ward, kangaroo-mothercare (KMC), a pediatric ward and additional rooms dedicated to meetings and academic sessions.

UNICEF Health Technology Center and UNICEF Supply Division, Denmark, provided technical support in the standardization of the physical environment of facility-based neonatal care in Ethiopia.

2) Capacity building of health care providers on special care of newborns

In order to produce the required adequate numbers of health units to staff the NICU, a total of 127 health care providers received training on various aspects of specialized neonatal intensive care provision. In addition, the project also trained 122 support staff of the hospital on infection prevention and other aspects of care that help in supporting the child care program of the hospital. The Yekatit 12 NICU is currently providing specialized neonatal intensive care to 100-110 newborns per month, on an in-patient basis.

A training manual on the management of common newborn problems for neonatology unit nurses was drafted by the chief neonatologist of Yekatit 12 Hospital, Dr. Mulualem Gessesse. Four hundred copies were printed and utilized for the trainings. The draft was revised prior to printing based on feedback from relevant partners. The manual includes a total of 14 modules to guide and facilitate the 10-day training. The manual is currently under review by the National Neonatology Technical Working Group for national adoption as a guiding document on neonatology training. It will be used for training at the national level once it is finalized and will be printed and distributed across the country.







The CEO of Yekatit 12 Hospital, Mr Sintayehu Tefera, said "Currently there is shortage of skilled nurses and health officers for our neonatal unit. We have been doing our best, but ratio of skilled staff to patients is not as high as we would like. The money that UNICEF has provided has enabled us to select nurses and health officers and give them training; from now onwards we will not face shortages of knowledgeable and trained staff. I appreciate this support very much, and would like to thank you on behalf of our hospital and of all the staff."

The Way Forward

In the coming years, UNICEF will continue to support the efforts of the Federal Ministry of Health and its partners to improve newborn health through both health-facility-level and community-based effective interventions. In order to reduce neonatal mortality, the Federal Ministry of Health is planning to improve neonatal care services at all levels of the health system. To this end, the Federal Ministry of Health plans to enable all public hospitals providing delivery services to establish neonatal intensive care services. UNICEF plans to support the establishment of twelve additional NICUs at large public hospitals across the country in 2013.

UNICEF is also playing an important role in strategizing the ways to maintain support for NICU centers of excellence, such as Yekatit 12 Hospital. These centers are vital to the success of the project since they serve as models of essential child health services in the Ethiopian health system. The UNICEF Ethiopia Country Office is currently working on raising the funds required for these activities.







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A Message of Thanks

Thank you for your generous donation. Your gift to UNICEF not only provides comfortable and safe places for mothers and newborns to thrive, but will affect children and families well into the future. Your support has enhanced the newborn healthcare system in Addis Ababa and beyond, reaching the country's most vulnerable populations. The Yekatit 12 Hospital serves Addis Ababa's urban poor and handles over 2,500 deliveries each year and was not equipped with a proper standard neonatal care unit. Through the funds provided by UNICEF's Next Generation we have been able to provide essential equipment and supplies and train the personnel necessary for neonatal intensive care at the hospital.

UNICEF is deeply committed to ensuring that all newborns in Ethiopia receive the quality of healthcare they deserve during their first weeks of life. Your support has helped to sustain and strengthen UNICEF-supported efforts with the Federal Ministry of Health to save and improve the health of children in Ethiopia.

On behalf of the children of Ethiopia, we extend our most heartfelt thanks!



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