

Situation analysis on healthy life of children's wellbeing in Ethiopia

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Abstract

Introduction: Children in Ethiopia suffer from very high burden of illness and death, and their health care falls far short of what is required to address the root causes of children illness and death and improve the capacity of stakeholders to meet their obligations to offer protection for children.

Objective: To assess the healthy life of children's wellbeing in Ethiopia by identify key gaps that causes very high burden of illness and death requirements to address wellbeing of children.

Methods: This article was involved a systematic literature review of secondary sources. It engaged collecting of published articles related to the topic and analyzing.

Results: The major causes of neonatal mortality (2010-2015) were birth asphyxia and birth trauma (31.6%), prematurity (21.8%) and sepsis and other infectious conditions of newborns, while those of child (1-59 months) mortality were acute lower respiratory infections (24.9%), diarrheal diseases (15.4%) and injuries (13.3%). Nutritional conditions with communicable diseases has a combined death effects of 4.5-4.8%, 10.4-12.5% and 8-9% in 0-27 days, 1-59 months and 0-4 years neonates and children respectively in Ethiopia.

Availability of selected health care services for under five years children in Ethiopia was between 7% and 53% in 2011. Contraceptive prevalence, among girls aged 15-19 years was estimated 8.9% in 2011. The percentage of women aged 15-19 with a live birth that received antenatal care provided by skilled health personnel at least once during pregnancy was 9.6% in 2011. In 2013, an estimated 55% of pregnant women living with HIV received ART for preventing Mother-to-Child transmission.

Conclusion: Even though Ethiopia has achieved considerable gains in maternal and child health care, a lot remains to be done to attain acceptable levels of child wellbeing. At least 15 gaps identified that need special attention for child health care from this assessment. To reduce the high level of children illness and death, Ethiopia need to work at all level with identified stakeholders. This requires focus on building the capacity of internal and external actors.

Key words: Situation, child wellbeing, healthy life, Ethiopia

Introduction

"Children's wellbeing determines the future of a country" (UNICEF 2012). Protection/promotion of child wellbeing in Ethiopia should be viewed from a broad perspective of a large, 1.1 million km², and diverse country with rugged terrain and difficult communication and transport. Socio-cultural factors are very important in any child wellbeing intervention. They affect outcome positively (breast-feeding, education for example) but more often negatively in seemingly intangible ways (Kitaw 1984; Kloos et al. 1987; World Bank 1994). The demographic trend in 'modern' Ethiopia has been a continuous and accelerated growth.

At the turn of the 19th century, the Ethiopian population was estimated to be slightly higher than 10 million; the current estimate is close to 90 million (Central Statistical Agency 2012; CSA 2014). Growth rate is accelerated significantly from an estimated 0.4% per annum between 1900 and 1920 to 2.9 in 1981-2003 and the current 2.6% (Hailemariam 2003; Ministry Of Finance and Economic Development 2010). Children below 15 years of age accounted to 50% of the population of the country between 1970

and 2000. Reports further indicate that the proportion of young people aged 15 to 29 years has reached 30% in 2003 (CSA and UNFPA 2009). Economically, Ethiopia remained one of the poorest countries in the world. The bulk of poverty, essentially the resource poor, is found in rural areas (Kedir 2005; UNDP 2010). In principle, policies and strategies conducive to child wellbeing have been developed in education and training, science and technology, women, population, disaster preparedness and prevention, HIV/AIDS etc. (FDRE 1993, 2000, 2004, 2012a, 2012b; MOFED 2008, 2010; MOLSA 2014) and a large number of projects are being implemented (CCRDA 2015).

There are a number of institutions responsible for children's wellbeing. The main responsibility lies with the Ministry of Women, Youth and Children (MOWYC) and the corresponding regional bureaus and the local offices where they exist. Ministries such as Ministry of Education (MOE) and Ministry of Health (MOH) also handle children's issues. Coordination is ensured through the National Inter-Ministerial Committees, chaired by MOWYC, at

federal level and the Children Rights Committees at regional, zonal and wereda levels. Thus, there seems

to be a relatively well coordinated system to implement a fairly comprehensive national legal framework for the protection of children's rights and wellbeing but "It [also] seems clear however that on all levels there are still significant capacity and resource limitations adding to the difficulties of implementing the relevant laws for children effectively" (Plan International Ethiopia (PIE) 2010).

Even though there is no consolidated proclamation on children's rights and wellbeing, the Constitution and several legislations including the Family and Criminal codes give good coverage of the issues. Major policies including the National Plan of Action for Children (MOFED 2008), 2003-2010 and beyond; Developmental and Social Welfare Policy (DSWP 1996; and National Youth Policy (MYSC 2004) cover child wellbeing. The NPAC focuses on providing quality education, health facilities, clean water and sanitation, food and nutrition, combating HIV/AIDS and protecting children against abuse, exploitation and violence, and also targets children in especially difficult circumstances. The DSWP provides focus for prevention and control of the further spread of the prevalent and deep-rooted social problems, and makes the implementation of all ratified international and regional human right instruments concerning the rights of the child mandatory. The NYP broadly encourages more active participation in economic, social and cultural life (PIE 2010). The specific focus of this review paper is to identify key gaps in the healthy life of children's wellbeing in Ethiopia. The gaps are identified in terms of causes of children's very high illness and death, and their health care. The root causes of children illness and death were identified together with the capacity of stakeholders to meet their obligations. However, there have been huge gaps that should be filled in prevention and treatment of high illness that cause death to children.

Materials and Methods

This article has involved a systematic literature review of secondary sources that were published articles which include: Journal databases, Library catalogue, and Subject specific professional websites and Newspaper database. Searching inclusion criteria were used specific to the title of this review. In addition, grey literature sources that focus on child wellbeing were collected from respective ministries. All information mentioned here were reported accurately and confidently.

Results and Discussion

Most deaths among children aged one to five years are due to diseases that can be prevented, or can also be easily treated at home or in health facilities. For some

of the most deadly childhood diseases, such as measles, vaccines are available and timely completion of immunization protects a child from these illnesses and death. Efforts to improve child survival can be effective only if they are based on reasonably accurate information about the causes of childhood deaths. Cause-of-death information is needed to prioritize interventions and plan for their delivery, to determine the effectiveness of disease-specific interventions, and to assess trends in disease burden in relation to national and international goals. With such objective, distribution of main causes of death among children aged < 5 years in Ethiopia is presented in Table 1. The causes of death refer to the concept of the 'underlying cause of death' as defined by ICD-10 (WHO 1992). In Ethiopia, the major causes of neonatal mortality (2010-2015) were birth asphyxia and birth trauma (31.6%), prematurity (21.8%) and sepsis and other infectious conditions of newborns while those of children (1-59 months) mortality were from acute lower respiratory tract infections (24.9%), diarrheal diseases (15.4%) and injuries 13.3%) (Table 1).

The major causes of childhood illness and death in Ethiopia in 2010-2015 are summarized in Table 2. Acute respiratory illnesses, such as pneumonia, are the major single cause of death in children under five in Ethiopia (Table 1). Addressing the major risk factors for the illnesses, malnutrition and indoor air pollution is essential in prevention, along with vaccination. Once children have a serious respiratory illness, they need appropriate care by a trained health provider, including access to antibiotics and oxygen. Diarrhea is responsible for the death of 0.1-0.8%, 14-18% and 8-10% in 0-27 days, 1-59 months and 0-4 years neonates and children, respectively. Diarrhoea can be prevented with exclusive breastfeeding, and good hygiene and sanitary practices. When a child with diarrhea becomes dehydrated, rapid treatment is necessary with Oral Rehydration Salts (ORS) and zinc supplements. Malaria is not a problem of health in 0-27 days neonates. However, malaria is responsible for the death of 1.5-2.8% and 0.8-1.4 % in 1-59 months and 0-4 years children, respectively, in Ethiopia during the past six years (2010 to 2015). Malaria can be prevented by the use of protective ITN. If a child is bitten and has malaria, rapid and appropriate health care is essential. HIV/AIDS is also responsible for the death of 1.8-2.8% and 1-2.2% in 1-59 months and 0-4 years children, respectively, during the past six years (2010 to 2015). Over 90% of children with HIV are infected through MCT, which is preventable with the use of ART, as well as safer delivery and feeding practices. ART for HIV-infected children greatly improves survival rates and quality of life. Without interventions, over half of all HIV-infected children die before their second birthday.

Table 1: Distribution of causes of deaths among children aged <5 years in Ethiopia, 2010 – 2015.

Causes of death	0-27 days		1-59 months		0-4 years	
	2010	2015	2010	2015	2010	2015
HIV/AIDS	0.1	0	3.9	2	2.2	1.1
Diarrheal diseases	0.7	0.8	17.6	15.4	10.3	8.4
Pertussis	2.0	0.2	3.8	3.3	1.7	1.8
Tetanus	1.9	1.9	0	0	0.8	0.9
Measles	0	0	6	7.1	3.4	3.7
Meningitis/ encephalitis	0	0	5.8	4.9	3.3	2.6
Malaria	0	0	2.8	2.2	1.8	1.2
Acute lower respiratory infections	8.5	8.4	28.8	24.9	20	17.1
Prematurity	22.2	21.8	3.4	4.1	10.7	12.5
Birth asphyxia and birth trauma	32.5	31.6	1.1	1.4	14.7	15.7
Sepsis and other infectious conditions of newborns	21.1	18.5	0	0	9.1	8.8
Other communicable, perinatal and nutritional conditions	4.8	4.5	10.4	12.5	8	8.7
Congenital anomalies	9.3	11.7	3.4	4.9	6	8
Other non-communicable diseases	0	0	3.6	4.4	2.1	2.3
Injuries	0.7	0.7	10.3	13.3	6.2	7.3
	103.	100.1	100.	100.4	100.	100.1
	8		9		3	

Nutrition

Malnutrition: Nutritional conditions with communicable diseases have a combined death effects of 4.5-4.8%, 10.4-12.5% and 8-9% in 0-27 days, 1-59 months and 0-4years neonates and children, respectively. Even though declining (Figure 1), child malnutrition is a major problem in Ethiopia (Table 2). The percentage of children aged <5 years that were overweight (i.e. high weight-for-height) in Ethiopia during 2000, 2005 and 2010-2011 were 2.1, 5.1 and 1.8%, respectively. Some countries are facing a double-burden with high prevalence of under- and overweight simultaneously. The percentage of stunted children aged <5 years in Ethiopia showed a declining trend from 68.1% in 1992 to 40.4% in 2014. Children who suffer from growth retardation as a result of poor diets and/or recurrent infections tend to have greater risk of suffering from illness and death. The percentage of children with low height-for-age (stunting)

reflects the cumulative effects of under-nutrition and infections since birth, and even before birth. This measure, therefore, should be interpreted as an indication of poor environmental conditions and/or long-term restriction of a child's growth potential. The percentage of children with low weight-for-age (underweight) may reflect the less common low weight-for-height (wasting, indicating acute weight loss, and/or the much more common stunting. Thus, it is a composite indicator that is difficult to interpret. The percentage of children aged <5 years that are underweight in Ethiopia also showed a decline from 43.3% in 1992 to 25.2% in 2014, while that of wasted changed little during 1992, 2000, 2005, 2010-2011 and 2014 at 9.6, 12.4, 12.3, 10.1 and 8.7%, respectively.

Table 2: Children < 5 Malnutrition estimates (%) for Ethiopia

Year	Overweight			Stunted			Underweight			Wasted		
	B*	F	M	B	F	M	B	F	M	B	F	M
2014	1.8	2.0	1.7	40.4	39.7	41	25.2	25.7	24.8	8.7	7.4	10.1
2010-2011	5.1	4.5	5.7	44.2	42.2	46.8	29.2	27.3	30.9	10.1	8.6	11.5
2005	2.0	1.9	2.0	50.7	49.6	51.8	34.6	32.8	36.5	12.3	10.8	13.7
2000				57.4	56.0	58.9	42.0	39.6	44.4	12.4	10.8	13.9
1992				68.1			43.3			9.6		

Source: WHO. Child malnutrition country estimates (WHO global database) Available at: <http://apps.who.int/gho/data/node.main.1095?lang=en>

*B=Both F=Female M=Male

The government's HSDP IV (2010/11-2014/15) attempted to improve the nutritional status of mothers and children through Enhanced Outreach Strategy (EOS) with Targeted Supplementary Food (TSF) and Transitioning of EOS into the Health Extension Programme (HEP), Health Facility Nutrition Services, Community Based Nutrition (CBN), and Micronutrient interventions and

Essential Nutrition Actions/Integrated Infant and Young Feeding Counseling Services.

- **Stunting (lower height-for-age):** Nationally, 40 percent of children under five years of age are stunted. In general, the prevalence of stunting increases as the age of a child increases, with the highest prevalence of chronic malnutrition found in children age 24-35 months (52 percent) and lowest in children between age six and eight months (9 percent).

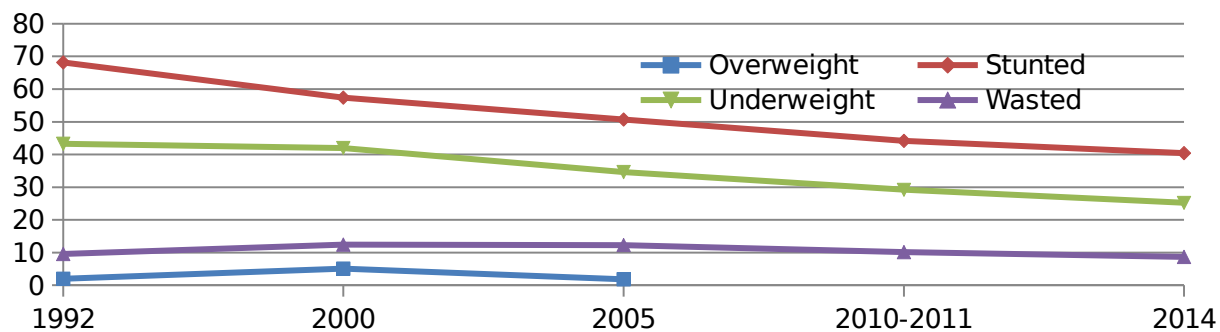
With the exception of first births, there is an inverse relationship between the length of the preceding birth interval and the proportion of children who are stunted. The longer the interval, the lower the proportion of

- **Wasting (lower weight-for-height):** Overall, 9 percent of Ethiopian children are wasted, and 3 percent are severely wasted. Wasting, or acute malnutrition, is highest in children less than 6 months of age and children age 12-17 months (15 percent and 14 percent, respectively) and lowest in children age 36-47 months (5 percent). Male children are slightly more likely to be wasted (10 percent) than female children (7 percent).
- **Overweight (higher weight-for-height) and Obesity:** *Child health care in Ethiopia:* The care and

children stunted. In Oromia, 38.2 per cent (i.e. below the national average of 40 per cent) of children under age five are stunted.

treatment of childhood diseases in Ethiopia is very important for children wellbeing. Some indicators of the situation in Ethiopia are given in Table 4 and summarized below.

Vitamin A supplementation: In Ethiopia, 45.8% and 53.1% of children aged 6-59 months received Vitamin A supplementation in 2005 and 2011, respectively. Supplementation with vitamin A is considered to be an important intervention for child survival owing to the strong evidence that exists for its impact on reducing child mortality among populations where vitamin A deficiency is prevalent.



Fig

Figure 1: Evolution of Nutritional Status of <5 Years Children in Ethiopia (%)

Table 3: Availability (%) of Selected Health Care Services for Under Five Years Children in Ethiopia

Children aged <5 Years	2005	2011	2007-2013
Received Vitamin A supplementation*	45.8	53.1	
With ARI symptoms taken to a health facility	18.5	27.0	
With ARI symptoms who took antibiotic treatment	4.9	6.8	
With diarrhea receiving ORT	27.5	30.7	
Sleeping under insecticide treated nets			30
With fever who received treatment with antimalarial			26

Source: WHO. *World Health Statistics* > *Health service coverage* Global Health Observatory data repository. Available at: <http://apps.who.int/gho/data/node.main.CHILDCARE?lang=en> * Children aged 6-59 months

Acute Respiratory Infections (ARI): In Ethiopia, 18.7% and 27% of children aged <5 years with ARI symptoms were taken to a health facility in 2005 and 2011, respectively. Acute respiratory infections (ARI) are responsible for 15% of all deaths of children aged less than 5 years worldwide. Appropriate care of the sick child is defined as providers that can correctly diagnose and treat pneumonia. The proportion of under-fives with ARI that are taken to an appropriate health-care provider is therefore a key indicator for coverage of intervention and care-seeking, and provides critical inputs to the monitoring of progress towards child survival goals and strategies.

Children with suspected pneumonia receiving antibiotics: Pneumonia accounts for an estimated 15% of deaths among children under five. In Ethiopia, 4.9% and 6.8% of children ages 0-59 months with suspected pneumonia received antibiotics in 2005 and 2011, respectively.

Children with diarrhea receiving ORT: In Ethiopia, 27.5% and 30.5% of children aged 0-59 months that had diarrhea in the previous 2 weeks were treated with oral rehydration salts or an appropriate household solution (ORT) in 2005 and 2011 respectively.

Children sleeping under insecticide-treated nets (ITN): The use of ITNs is identified by WHO as one of the main interventions to reduce the burden of malaria. Between 2007-2013 years, 30% children aged <5 years were sleeping under insecticide treated nets in Ethiopia. In areas of intense malaria transmission, malaria-related morbidity and mortality are concentrated in young children, and the use of insecticide-treated nets (ITN) by children under 5 has been demonstrated to considerably reduce malaria disease incidence, malaria-related anemia and all cause under five years mortality.

Children with fever who received treatment with any antimalarial: In areas with high/stable levels of

malaria transmission, prompt access to treatment is very essential. This requires drug availability at household or community level; and for complicated cases, availability of transport to the nearest equipped facility. Between 2007-2013 years, 26% of children aged < 5 years with fever in malaria-risk areas were treated with effective antimalarial drugs in Ethiopia.

Prevalence of HIV among adults aged 15 to 49 years:

HIV and AIDS has become a major public health problem in Ethiopia and monitoring the course of the epidemic and impact of interventions is crucial. Prevalence of HIV among adults aged 15 to 49 years was 1.2% in Ethiopia in 2013 but there are indications that prevalence is higher among the young 15-19 years girls in particular. HIV was significantly prevalent among youth in Addis Ababa, particularly out- of school and female youth (Negussie Taffa et al. 200). Different socio-cultural contexts of sexuality and gender norms underpin this excess vulnerability. High unemployment rate, low school enrolment, and widespread child prostitution are among major social-economic challenges of young people in the country (Child and Youth Affairs Organization, Ethiopia 1995). Religious and social norms also play significant roles in people's lives and generally do not encourage the young to develop independence and self reliance. No sex before marriage is the general norm; there is a gender imbalance in approving it when it takes place.

Unmet need for family planning, among girls aged 15-19 years: In Ethiopia, the unmet need for family planning, among girls aged 15-19 was 23.9% in 2011. Unmet need for family planning provides a measurement of the ability of women in achieving their desired family size and birth spacing. It also provides an indication of the success of reproductive health programs in addressing demand for services.

Contraceptive prevalence, among girls aged 15-19 years: Contraception lets the woman to plan her pregnancies. It access for reliable family planning and woman's personal well being. It plays a pivotal role in the financial, physical and emotional health of children. Contraception lets women and couples have the number of children they want, when they want them. This is everybody's right under the United Nations Declaration of Human Rights. Contraceptive prevalence rate is an indicator of health, population, development and women's empowerment. It also serves as a proxy measure of access to reproductive health services that are essential for meeting many of the Millennium Development Goals, especially those related to child mortality, maternal health, HIV/AIDS, and gender equality. Knowledge about contraceptive is almost universal among married women and contraceptive prevalence rate has increased

substantially (CSA 2014). Contraceptive prevalence, among girls aged 15-19 years was estimated 8.9% in 2011 in Ethiopia. In Oromia region, the contraceptive prevalence rate is 29% for all women and 42% for currently married women in 2014 (Table 4).

Table 4: Current Use of Contraceptive Methods, all Women

		Any method		Any Modern Method	
		2005	2014	2005	2014
Age	15-19	4.7	9.3	4.5	9.2
	15-49	18.2	28.2	17.4	27.9
	Addis Ababa	56.9	64.1	45.2	57.4
Region	Amhara	16.1	45.9	15.7	44.9
	Oromia	13.6	43.6	12.9	42.8
	SNNP	11.9	39.8	11.4	38.6
National		14.7	41.8	13.9	40.4

Source: Adapted from CSA 2006 and CSA 2014

Antenatal care coverage-at least one visit, among girls aged 15-19 years:

The percentage of antenatal care at least once provided by skilled health personnel for women aged 15-19 years was 9.6% in 2011 in Ethiopia. An important component of efforts to reduce health risks to mothers and children is increasing the proportion of babies that are delivered in health facilities. As per [Ethiopia Mini Demographic and Health Survey](#) (EMDHS) 2014, sixteen per cent of birth delivered in health facilities (15 % in public and 1 % in private sector). In Oromia, only 13.3% of delivery were in health facilities (12.4 % public, 0.9 % private, and 85.8 % at home). The deliveries were attended: 3 % by doctor, 10.1% by nurse midwives, 0.5 % health extension workers, 31.2 % traditional birth attendant, 49.8 % by relatives and 5.2 % no one (CSA 2014). Reasons for not delivering at health facilities is reported in Oromia region as 2.8 % cost , 2.3 % facility was not open, 21.3 % distance of the facility, 0.7 % poor health service, 1.1 5 husband did not allow 47.5 % said not necessary, and 31% said not customary.

Pregnant women living with HIV who received ART for preventing Mother-to-Child transmission:

In Ethiopia, in 2013, an estimated 55% of pregnant women living with HIV received ART for preventing Mother-to-Child transmission. A study conducted in Assela revealed, mothers' illness during pregnancy, mothers' failure to receive ART during pregnancy/breast feeding, home delivery, infant birth weight and mixed infant feeding are some of the factors that affected HIV free survival (<http://etd.aau.edu.et/bitstream/123456789/8318/1/Mama%20Abdula.pdf>).

Expenditure on health: In Ethiopia, the total expenditure on health (measured as the sum of all financing agents managing funds to purchase health goods and services) was between 4.9-5.1% of the GDP in 2010-2013. This is a little progress in allocating budget on health by the government as the private

expenditure on health remained relatively high at between 44.1, 37.2, 39.4 and 39% in 2010, 2011, 2012 and 2013 respectively. Ethiopia's health system is highly under funded with per capita spending of around US\$ 17 in 2012/13 compared to the minimum amount of US\$25 per capita required to implement HSDP IV (DIFD 2013). A high proportion of this was donor supported.

Conclusions and Recommendations

More than half of early childhood deaths in Ethiopia are due to conditions that could be prevented or treated with access to simple, affordable interventions. Preterm birth complications, pneumonia, birth asphyxia, diarrhea and malaria are the leading causes of death in under-5 children. About 45% of all child deaths are linked to malnutrition. A child's risk of dying is highest in the neonatal period, the first 28 days of life; 45% of child deaths under the age of 5 take place during the neonatal period. Safe childbirth and effective neonatal care are essential to prevent these deaths. Strengthening health systems and engaging stakeholders to provide such interventions to all children will save many young lives. This requires the focus on building the capacity of internal and external actors.

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