BASELINE SURVEY ON HOUSEHOLD AND COMMUNITY PRACTICES IN THREE DISTRICTS OF OROMIA AND SOMALIA NATIONAL REGIONAL STATES.

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SUMMARY

As an initial step for the implementation of the Household and Community Component (HHC) of Integrated Management of Childhood Illnesses (IMNCI), a baseline survey was conducted in three zones, located in Oromia and Somalia National Regional States.

The objective was to obtain baseline information on key household and community practices in areas of nutrition, growth promotion and development, disease prevention, home management of illnesses, care seeking and compliance to treatment and advice.

A total of 900 households with children less than two years of age were included in the study utilizing the WHO recommended cluster sampling system.

Socio-demographic characteristics: About 92.8 percent of the mothers and 77 % of the fathers were illiterate.
Ninety percent of the mothers were housewives and 79% of the fathers were farmers. The economic status of the households was analyzed using the housing condition of the families and their annual income and the majorities were found to be in a very low socio-economic status. Forty-four percent of the children enrolled in the study were below one year of age with a male to female ratio of 1:1.3.

Nutrition, growth and development: Except one child, all the children under study were breast fed but breast feeding was initiated in 40% of them twenty-four hours after birth. In 83 % pre-lacteal feeds like sugar water solutions were given. In most children (55%) supplementary feeding was started after six months of age with low quality foods, while 28% of the children were started with supplementary food before the age of six months. Around 34% were sharing plates during feeding. 59% of the children were not exposed to sunlight because of lack of knowledge on its use (77%)..

Disease prevention: Among 357 children aged one year and above, according to the records from the immunization cards only 9.2% (n=33) received BCG, 11.2% (n-40) received OPV3, 5.9% (n=21) received DPT3 and 8.7% (n= 31) received measles vaccines. Of those children above six months of age vitamin A was given only for 44%. Only 38% of the households had safe water supply. Around 74% of the caretakers had the habit of washing hands before meals and 38.5% before feeding their children but a significant amount of caretakers (46%) were not using soap at all. 90% of the households did not have pit latrine. Even though 79% of the households live in malarious area, only 19% had bed-nets.
80% of the respondents were aware of HIV/AIDS but most of them do not know the most important means of transmissions and preventions.

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Care seeking and compliance to treatment and advice: Only 37% of the caretakers with sick children in the past two weeks sought medical care. Of those who were given drugs to be taken at home 80% completed the full course of treatment. Medical care was sought for children before 24 hours of illness, in 13 and 14% of children with diarrhea and fever respectively. More than 80% of the respondents knew 3 or more serious signs of illnesses for care seeking. When asked about their preference of care seeking, caretakers preferred health institutions as places of the first choice in 17%, 20% and 37% for cases of measles, convulsion, and fever respectively.

Home management: In 36% of children with fever and in 30% of children with diarrhea no treatment was given at home. False teeth manipulations were done in 40% of the children while female genital mutilations were done in 60% of female children.

Reproductive Health: 19% of the mothers had an ANC visit at least once during their last pregnancy and 33% had at least one TT vaccine while only 19% had received vitamin A after delivery. Only 2.3% of the children under study were born in a health facility. Of those delivered at home 40% were attended by TBAs.

29% of the respondents were aware of family planning but only 32% of those who are aware are using the method.

This study in general revealed household and community knowledge and practices that need to be improved to promote child survival, growth and development. In order to ensure sustainability, interventions for improvement of practices should assume a participatory approach.

BACKGROUND

Every year, nearly 11 million children die before reaching their fifth birthday. Most of these deaths are in developing countries; more than half are due to acute respiratory infections, diarrhea, measles, malaria and HIV/AIDS. In addition, malnutrition underlies 54% of all child deaths. Projections based on the 1996 analysis the global burden of disease indicate that these conditions will continue to the major contributors to child deaths in 2020 unless significant efforts are made to control them (1).

Success in reducing childhood mortality requires more than the availability of adequate health services with well-trained personnel. As families have the major responsibility for caring for their children, success requires a partnership between health workers and families with support from these communities. Taking this into consideration the Ethiopian National IMCI Review and Planning workshop conducted in March 2001 in Nazreth, emphasized the implementation of the third component of the IMCI strategy, which is an integrated child care approach that aims at improving key household practices that are likely to have the greatest impact on child survival, growth, and development. It seeks to initiate, reinforce and sustain key family practices that are important for child survival, growth and development within the overall framework of community capacity development.

A substantial body of evidences identifies the benefits of specific family practices in the child survival, (2)

- Malnutrition is associated with more than 50% of all child deaths and improving breast feeding alone could reduce the number of child deaths by

more than 10%. Besides improved complementary feeding could prevent more than 10% of deaths from diarrhea and pneumonia.

- In areas of vitamin A deficiency child mortality could be reduced by over 20% by improving the intake of vitamin A through diet or supplementation.
- Most of the 800000 measles death each year could be prevented if all children received measles immunization before one year of age.
- Malaria causes more than 600000 child deaths every year which could be reduced by as much as 35% if children in endemic areas slept under bed nets.
- Timely and appropriate care seeking could reduce ARI mortality by more than 20%.
- Home care could also reduce child deaths due to diarrhea.
- Improved hygiene practices, safe disposal of excreta and hand washing can reduce incidence of diarrhea by more than 10%.

And as a foundation for the implementation of the household and community component of IMCI base line surveys are required to be conducted at district levels. These will generate information that can be used for planning, implementation and monitoring.

The main objective of this base line survey is to obtain base line information on key household and community knowledge, behaviors and practices that will be used for the planning, implementation, monitoring and evaluation of the household and community component of IMNCI.

METHODOLOGY

A cross-sectional community based descriptive study was conducted in three district located in Oromiya and Somali National Regional States in June 2006, in order to identify key household and community knowledge, behaviors and practices.

The study utilized the base line survey tool which is a structured questionnaire designed to identify key family and community practices in areas of growth promotion and development, disease prevention, home management of illnesses, reproductive health, care seeking and compliance to treatment and advice. Households with children less than 2 years of age were included in the study and caretakers of these children were interviewed. Twelfth grade completed enumerators were used to make the interview and fill the questionnaire. They were trained by facilitators, who have developed and reviewed the baseline survey tool, using the guideline that had been prepared for the purpose of the study. Pretest was done using the tool which was translated to the local language. Reviewing and adaptations were made on the tool after conducting a pretest.

The study utilized the WHO recommended 30 by 10 cluster sampling system in each district, where 30 rural villages and urban kebeles were randomly selected and 10 households from each cluster selected. Upon reaching the village or kebele the enumerators locate the center and spin a bottle on a ground to identify the direction they were going to follow. Households along the identified direction were listed and among them the first household was chosen by a lottery system. Then adjacent houses were assessed for children less than two years of age. In households where there was no

child under two years the next household was taken until ten households had been included.

The youngest child was recruited in households where there was more than one child less than two years of age. Data thus collected was entered and analyzed in a database using a computer soft ware EPI-INFO version 2004.

RESULTS

A total of 900 households were involved in the study but 891 were found to be valid. Out of these 33.6% (n=299) were from Oromiya Region while 66.4% (n=592) were from Somalia Region. The three districts included in the study were Damole (33.4%), Dirre (33.7%) and Moyale (32.9%). Ninety-three percent (n=829) of the respondents were mothers.

Socio-demographic characteristics: Around 93% (n=827) of the mothers and 77% (n= 689) of the fathers were illiterate. Around 90% (n=801) of the mothers were housewives, while 78.6% (n=700) of the fathers were farmers (Table 1). 95% (n=847) of the parents were married. About 84 % of the mothers had an age range from 14-19 during marriage, while 67% had their first delivery between 14-19 years of age. The age distribution of the children involved in the study showed that 43.8% (n=390) were less than one year of age and the sex distribution showed a male to female ratio of 1:1.3.

As part of the assessment of the socio-economic status of each household, the type of roof and floor of the houses were selected. 59.4% (n=529) households had thatched roofs and 94% (n=831) had floors made of mud and/or dung (Table 1). The annual income of families was estimated by calculating the sale of last year's yearly product and/or monthly salary. Based on that 85% (n=509) families were found to have an annual income of less than 250 Birr. In around 43% of the households the number of people living together is more than six (Table 1).

Table 1: Socio-demographic characteristics

Parental educational status	Maternal Frequency(%) (n=891)	Paternal Frequency (%) (n=891)
Illiterate	827(92.8)	689 (77.3)
Read and write	20 (2.7)	87 (9.8)
Grade 1-6	34 (3.8)	67(7.5)
Grade 7-12	9 (1)	39 (4.4)
Above 12^{th} grade	1 (0.1)	9(1)

Parental occupational status	Maternal Frequency (%) (n=891)	Paternal Frequency (%) (n=891)
Farmer	79 (8.9)	700 (78.6)
Housewife	801 (89.9)	-
Government employee	2 (0.2)	47 (5.3)
Others	9 (1)	144 (16.2)

Estimated family annual income (Birr)	Frequency (%) (n=596)
≤ 250	509 (85.4)
> 250	87 (14.6)

Housing condition	
Roof type	**Frequency (%)(n=891)**
Thatched	529 (59.4)
Corrugated iron sheet	214 (24)
Others	148 (16.6)
Floor type	**Frequency (%)(n=891)**
Mud/Dung	837 (93.9)
Others	54 (6.1)

Child age (months)	Frequency (%) (n=891)
0-5	165 (18.5)
6 – 11	225 (25.3)
12 – 17	283 (31.8)
18 – 23	216 (24.40

Number of people living in a house	Frequency (%)
≤ 6	496 (56.8)
≥ 7	378 (43.2)

Nutrition, growth and development: All the children under study except one were breast fed initially. However in nearly 80% of the children pre-lacteal feeds were given. The most common one is sugar water solution. Only 17% (n= 155) of the children were not given any other feeds other than breast. In 40% (n=355) of the children breast-feeding was initiated twenty-four hours after birth but only 26% (n= 229) were given breast milk in the first hour after birth (Table 2).

Of those children who had already been given supplementary feeding (n=399) only 18% (n=69) were started at the age of 6 months, while 28% started before 6 months of age and 55% started beyond six months of age. Porridge (n=268) and kita (n=118) were commonly used as supplementary foods. Energy rich nutrients like butter, oil, sugar, milk etc were not added in the diet of only 3% (n=13) of the children (Table 2). Thirty four percent (n=153) of the children getting supplementary diet were sharing with either their siblings or adult member of the family while feeding.

About 59% (n=511) of the children were not exposed to sunlight and of those exposed to sunshine it was practiced everyday in 59% (n=206) of the children. Lack of knowledge on the benefits of exposure to sunshine was the most frequent reason provided by the respondents for not exposing their children to the sunlight.

Table 2: Feeding practices

Prelacteal feeding pattern	**Frequency (%)(n=890)**
Sugar water solution	541 (60.9)
Butter	9 (1)
Others	173 (19.4)
Nothing	155 (17.4)
Abish	12 (1.4)

Time breastfeeding initiated (hours)	**Frequency (%) (n=890)**
0 – 1	229 (25.7)
1 - 6	137 (15.4)
7 – 12	69 (7.8)
13 – 24	100 (11.2)
>24	355 (39.9)

Age supplementary feeding started (months)	**Frequency (%) (n=394)**
< 6	118 (28.4)
6	72 (17.3)
≥ 7	226 (54.3)

Type of supplementary food	Frequency
Injera fitfit	27
Kita	118
Gruel	55
Porridge	268
Bread	28
Potato	28
Others	112

Energy rich substances added during preparation of diet	Frequency
Butter	49
Sugar	154
Oil	223
Milk	210
Nothing	13
Others	11

Disease Prevention: Vitamin A was given in 44.7% of those children above six months of age. Of those children aged one year and above, immunization cards were checked for immunization status. But as some households lost the card, verbal confirmation was also taken as an evidence for having vaccination. Taking both sources of information 51% of children above 12 months had taken BCG, 74% OPV3, 36% DPT3 and 38% measles vaccine (Table 3).

Knowledge about use of immunization, side effects of vaccines and contraindictions for immunizations were assessed. 741 respondents responds correctly on the use of immunization while 111 think immunization reduce severity of illnesses and 82 believes it cures from illnesses. 32 % of the respondents mention fever as a side effect of immunization while 67% of the respondents claimed that there is no contraindication for immunization.

Water supply for drinking was taken as safe if the source was from protected spring, protected well or pipe. Only 38% (n=336) of the households have a safe water supply. When the hand washing habit of the caretakers were inquired, 74% reported that they washed their hands before preparing meals while only 38% said that they always wash hands before feeding their children and only 31% always washed hands after using the toilet. Besides 46 % (n=389) were not using soap at all while washing (Table 3). Around 90% (n=787) of the households did not have a pit latrine of any type and in 89% of the households

children's feces were thrown in the yard. Only 28% of the households with pit latrine had access to water after toilet usage.

Malaria was endemic where 79% of the households were located, but insecticide treated nets were available in only 19% (n=135) of the households. The respondents claimed that children had slept under ITN the night before the interview in 82% of the households with ITN.

More than 80% (n=701) of the caretakers knew about HIV/AIDS and the most frequent sources of information were community meetings (n=451), friends or relatives (n=237) and radio (n=219). The widely known means of transmissions were sexual (n=664), sharp infected objects (n=145) and blood transfusions (n=165). Forty one caretakers claimed not to know any of the means of HIV/AIDS transmission and only 24 mentioned breast feeding as a source of transmission.

Besides around 49 caretakers mentioned means of transmission that were not scientifically proven. The most commonly known means of prevention was abstinence (n=506) while forty two caretakers claimed not to know any (Table 3).

Table 3: Knowledge and practice on disease prevention

Pattern of vitamin A supplementation in those > 6 months	**Frequency (%) (n=665)**
Given	297 (44.7)
Not given	368 (55.3)

Hand washing habit (n=891)	**Before preparing meal Frequency (%)**	**Before feeding Frequency (%)**	**After toilet use Frequency (%)**
Yes	660 (74)	343 (38.5)	274 (30.7)
No	232 (26)	549 (61.5)	618 (69.3)

Pattern of use of soap while washing	**Frequency (%) (n=839)**
Always	36 (4.3)
Sometimes	414 (49.3)
Not at all	389 (46.4)

Child feces disposal practices	Frequency (%) (n=890)
Thrown in the yard	790 (88.8)
Thrown in the latrine	73 (8.2)
Buried in the yard	13 (1.5)
Rinsed away	10 (1.1)
Others	4 (2.4)

Pattern of sunlight exposure	Frequency (%) (n=863)
Yes	352 (40.8)
No	511 (59.2)

Information on HIV/AIDS	Frequency (%) (n=876)
Yes	701 (80)
No	175 (20)

Reproductive Health

Only 19% (n=169) of the mothers had attended ante-natal care during their last pregnancy and 33% (n=224) had received at least one Tetanus Toxoid injections.

Only 2.3% (n=20) of the children under study were born in a health facility and of those deliveries at home 58% (n=511) were attended by TBAs.

Two hundred and thirty two (29.3%) mothers knew about family planning but only 32.3% (n=75) practiced the family planning methods.

Table 4: Knowledge and practices on reproductive health

Attended Antenatal Care	Frequency (%) (n=880)
Yes	169 (19.2)
No	711 (80.8)

Family planning methods knowledge and practice	Knowledge Frequency (%)(n=793)	Practice Frequency (%) (n=232)
Yes	232 (29.3)	75 (32.3)
No	561 (70.7)	157 (67.7)

Place of Birth	Frequency (%) (n=887)
Health facility	20 (2.3)
Home without TBA	511 (57.6)
Home with TBA	356 (40.1)

Care seeking and compliance to treatment: When caretakers were asked where they prefer to take their children if they develop convulsion, measles or fever, health institutions were found to be their first choice in 17% for measles, 20% for convulsion and 37% for fever (Figure 1).

86% of the children had been sick within two weeks before the interview and only 36.5% of those who were sick were taken to a health institution. Caretakers were asked about episodes of diarrhea and fever of their children, about the kind of care they sought and any home care that was provide during the most recent episodes. Medical care was sought for 212 (48%) children with history of fever, and in 86% of children, it was sought after 24 hours of illness (Tables 5). And in those with history of diarrhea medical care was sought in 39% (n=190) and in 87% it was after 24 hours of illness (Tables 5).

Health institutions were located beyond thirty minutes walking distance for 64% of the households who sought medical care. Of the 269 children, for whom drugs were given to be taken at home, 80% were said to have complied to the treatment course (Tables 5).
81% of the care takers knew 3 or more serious signs of illnesses for care seeking.

Table 5: Care seeking behaviour and compliance to treatment

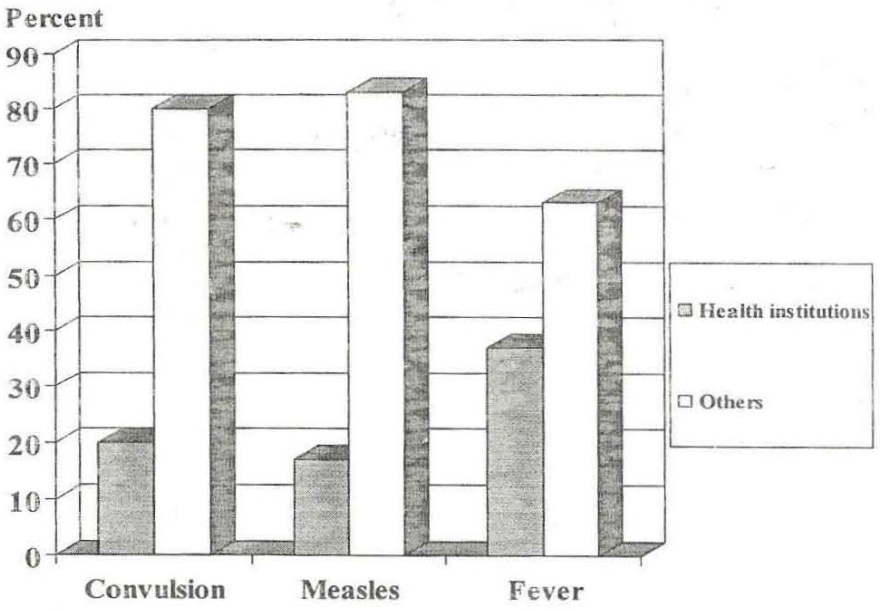
Medical care sought	For fever Frequency (%) (n=441)	For diarrhea Frequency (%) (n=491)
Yes	212(48)	190 (38.7)
No	229(52)	301 (61.3)

Time taken for seeking medical care (hours)	For fever Frequency (%) (n=212)	For diarrhea Frequency (%) (n=190)
≤ 24	29 (13.7)	24 (12.6)
> 24	183 (86.3)	166(87.4)

Complete treatment given	Frequency (%) (n=269)
Yes	226 (79.6)
No	55 (20.4)

Number of serious signs for care seeking known	Frequency (%) (n=880)
≤ 2	168 (19.1)
3 – 5	526 (59.8)
≥ 6	186 (21.1)

Figure 1: Care seeking preference sites



Home management: Home management was inquired on the recent episode for those children who had history of fever and/or diarrhea. Four hundred and forty-one children had fever and for 36% nothing was done at home while traditional medicine was given 30% (Table 6). An anti-malaria drug was given to 4 children and antipyretics for fifty-five children.

Four hundred and ninety one children had history of diarrhea and in 30% (n=149) nothing was given at home. ORS was given in 6.3% (n=31) (Table 6). Respondents were asked on how to manage a child with diarrhea and 34% mentioned sugar salt solution, 26% ORS, and 28% breast milk. Around 14% claimed not to give anything.

Of the harmful traditional practices, false teeth removal or manipulations in was done in 341 (40.2%) children, and female genital mutilations in 210 (60%) of female children (Tables 6).

Table 6: Home management pattern

Home management for fever	Frequency (%) (n=441)
Nothing done	157 (35.6)
Unknown drug given	2 (0.5)
Traditional medicine	132 (29.9)
Antipyretic	55 (12.5)
Cold sponging	35 (7.9)
Antimalarial drug	4 (0.9)
Other	56 (12.7)

Home management for diarrhea	Frequency (%) (n=491)
Nothing done	149 (30.3)
Ampicillin	8 (1.6)
Clean water	34 (6.9)
Traditional medicine	166 (33.8)
ORS	31 (6.3)
Special food and drink	15 (3.2)
Other	31 (6.3)
Salt Sugar Solution	57 (11.6)

Harmful traditional practices	False teeth manipulations (n=849)	Female genital mutilations (n=349)
Yes	341 (40.2)	210 (60.2)
No	508 (59.8)	139 (39.8)

DISCUSSION

Family care practices are critical to a child's survival, growth and development. The study has tried to look into the pattern of key household practices in the districts especially in the areas of nutrition, growth and development, disease prevention, home management, reproductive health, care-seeking behavior and compliance to treatment and advice.

Nutrition

The major problems that have been identified under this theme include provision of pre-lacteal feeds, delayed initiation of breast feeding, early and delayed initiation of supplementary feeding,

early and delayed initiation of supplementary feeding, low quality of supplementary diet, lack of sun exposure and low prevalence of vitamin A supplementation.

Exclusive breast feeding is rare, which is quite similar to the global figure. WHO estimates that only globally, 35% of infants age 0-4 months are exclusively breast fed (3). In sub-Saharan Africa, the average exclusive breast feeding rate is 28% (4).

The contribution of nutrition in general towards child survival, growth and development has been well documented. Therefore the community should be empowered to acquire the necessary knowledge and should be assisted to have an attitudinal change and promote the appropriate practices for child survival, growth and development.

In a meta-analysis of 35 studies, Green (5), found that interventions of various types had an impact on improving exclusive breastfeeding practices. Peer counseling, the typical intervention in community-based efforts to improve breastfeeding, is likely to be the most effective means of improving breastfeeding practices.

Disease prevention

Under this theme the major problems identified include low immunization coverage, lack of safe water supply, lack of bed nets, low utilization of soap for washing hands, lack of pit latrines, improper disposal of child feces and lack of knowledge on means of transmission and prevention of HIV/AIDS.

The benefits of immunizing children are well established. Social mobilization has been able to increase coverage by 11% in the Philippines, by 12% in urban Cambodia, and by 55% in Indonesia (2).

Insecticide-treated bed nets were found to be associated with a reduction of all-cause deaths of children under-five by about 17% in a meta-analysis of four randomized controlled studies in Africa (6).

Taking into consideration the role of disease prevention, especially in resource poor countries, in reducing the child morbidity and mortality, emphasis should be given for proper communication within the community so that proper knowledge be acquired, behavior changed and more resources mobilized to acquire what is needed to prevent illnesses.

Care seeking and compliance

Although the knowledge of the community in listing the serious signs of illnesses for seeking care is good, the tendency to seek medical care at health institutions is very low, indicating the variation between knowledge and practice. In addition there is a delay in seeking care, risking the life of many children.

As children naturally are very delicate, early care seeking during illness is crucial for their survival. This can only be achieved by appropriate and persistent education of the community so that change in behavior can be acquired.

In Indonesia, ARI deaths decreased by 67% after community health workers trained caregivers to recognize and prevent ARI, and identified and referred children with pneumonia. (7)

Home management

Even though most care takers knew what need to be given for children with diarrhea, the home care practice for those with diarrhea as well as with fever is far from what is being recommended. It was shown that the correct home treatment of malaria could cut deaths by 40% and correct home treatment of diarrhea could save most of the 1.3 million children who die of diarrhea each year (8).

Taking into consideration the low access to health facilities, the impact of home management of sick children for child survival needs to be emphasized.

Besides, the lack of knowledge on causality of diseases and certain inherent beliefs, led the community to accept harmful traditional practices. As these practices are deeply rooted, they require feasible and acceptable participatory interventions.

Reproductive health

Delivery by unskilled attendant, low ANC coverage and low family planning methods were the major identified reproductive health problems in the community. As maternal survival is one of the most important determinant of child survival, these issues need to be addressed seriously.

Besides these observed problems on child health care, certain basic problems have been identified in the community. These include high rate of parental illiteracy, poor economic status, large family size and early marriages. These could be the root causes of certain problems, and they require inter sectoral collaborations and strong partnership.

Interventions for the identified inappropriate practices should be initiated after meticulous planning involving the community and partners from the outset. This would ensure sustainability in the promotion of child survival, growth and development.

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