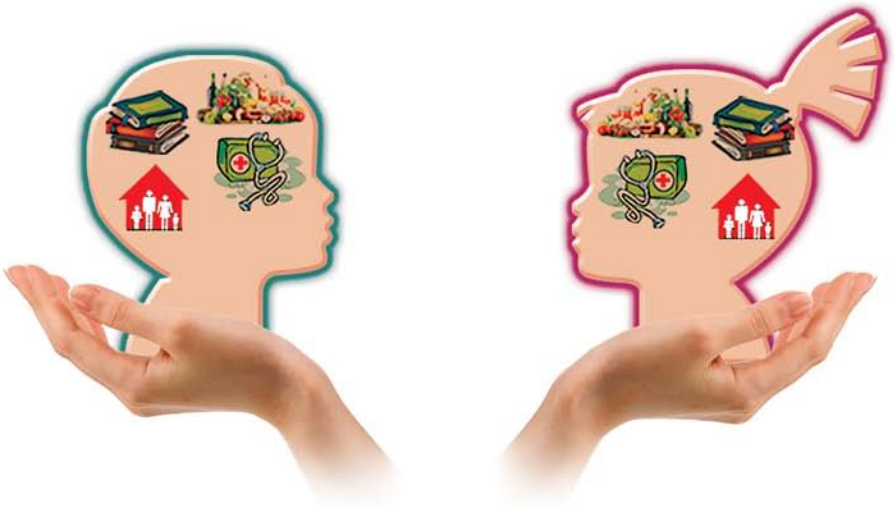
Situation Analysis

Situation Analysis on Orphans and Vulnerable Children Infected and Affected By HIV and AIDS in Myanmar



Department of Medical Research (Lower Myanmar)
National AIDS Program
United Nations Children Fund
2014 August

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"The terminologies HIV-OVC and CABA are used interchangeably in this report to describe children under 18 years of age: who are infected with HIV; and / or with either one or both their parents, living with HIV or having died due to AIDS. Both the terminologies are used in this report because HIV-OVC is well known and understood in the Myanmar context while CABA is a more generally used global terminology in the recent past."

Suggested citation

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Abbreviations and acronyms

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-retroviral therapy
CBO	Community based organization
HIV	Human Immuno-deficiency Virus
IDI	In-depth interview
INGO	International non-governmental organization
KII	Key informant interview
NAP	National AIDS Program
NGO	Non-governmental organization
OVC	Orphans and vulnerable children
PLHA	People living with HIV/AIDS
SHG	Self help group

Foreword

First of all, let me express my appreciation towards DMR-LM team as well as UNICEF Myanmar team for their great efforts in conducting this nationwide situation analysis study on orphans and vulnerable children infected and affected by HIV and AIDS in Myanmar. It was learnt that the survey covered 30 townships from 13 States and Regions which was about 10% of total townships in Myanmar.

To my understanding, purpose of conducting this study is to identify the situation of orphans and vulnerable children infected and affected by HIV/AIDS and provide the information in formulation of strategic planning for these children. Importantly, this study also aimed to contribute for the achievement of Millennium Development Goal 6. It was evident that major findings from present study highlighted the adverse socioeconomic conditions faced by the HIV affected families and their children. These findings indicated the need of social protection for these children across the country.

After going through the key findings of the study, it can be clearly seen that multi-sectoral approach is essential for the mitigation of the impact of HIV on the children. In this endeavor, health sector in collaboration with other sectors like social welfare and education would be very beneficial to improve the lives of these children. Additionally, role of UN agencies, NGO/INGO, CBO and SHG are also important in carrying out the mitigation programs.

I am very much optimistic upon the fact that the study findings will be utilized for better improvement of life of the children.

Congratulation again for the excellent work done by the study team.

Dr. Kyaw Zin Thant

Director General

Department of Medical Research

(Lower Myanmar)

Message from UNICEF

It is a privilege to launch the Situation Analysis of Children Affected by AIDS in Myanmar, which is a critical first step towards the fulfilment of their rights, providing a detailed assessment to inform the scale up of HIV-sensitive care, support and protection of orphans and vulnerable children.

The Situation Analysis is an excellent example of multi-sectoral government and civil society collaboration: the product of close collaboration between the Department of Medical Research (Lower Myanmar), the National AIDS Program, the Orphans and Vulnerable Children Technical Working Group (consisting of representatives of various organizations working for children infected or affected by HIV), and UNICEF.

Recognising that every child is unique and that the care, support and protection they receive must be tailored towards these individual needs: the survey provides a detailed examination of the current circumstances of children affected by AIDS in Myanmar, the extent to which their rights are protected; the consequences of HIV on the wellbeing of children and families; and the gaps in existing policy and programs for these children.

The report highlights the immediate and long term needs for strategic planning for children affected by AIDS, which will contribute to the achievement of Millennium Development Goal 6. It is clear that a multi-sectoral approach is essential to respond to the needs of children and families affected by AIDS, given the heterogeneous nature of the impact of HIV on families.

UNICEF hopes that the information and recommendations identified in this study will be of use to various planners, programmers, and policy makers interested in the realization of children's rights and the disparities faced by vulnerable children especially when they are stigmatized with HIV.

Government policies and resource allocations for expanded social welfare and services are essential to increasing the capacity of families and communities to care for children affected by AIDS. Like every child, children affected by AIDS need equitable access to health care and education, as well as the protection care and support of their families and community

UNICEF Acting Representative

Acknowledgements

We would like to express our sincere gratitude to HE Dr. Than Aung, Union Minister, Minsitry of Health, and Dr. Kyaw Zin Thant, Director General, Department of Medical Research (Lower Myanmar) for allowing us to conduct this study.

Our thanks go to State/Division Health Directors of Yangon Region, Mandalay Region, Magway Region, Sagaing Region, Bago Region, Ayeyarwady Region, Tanintharyi Region, Kachin State, Kayah State, Kayin State, Chin State, Mon State, and Shan State for their kind help and coordination for field data collection. Our sincere gratitude also extends to Regional Officers and team leaders of National AIDS Program for their coordination throughout the data collection period.

We wish to express our deepest thanks to Myanmar Nurses and Midwife Association, Myanmar Maternal and Child Welfare Association, Pyi Gyi Khin, YMCA, CARE Myanmar, World Vision Myanmar, Union, IOM, AFXB, AZG, PSI, MSI, PLHA networks and self-help groups from all the study townships for sharing data for the preparation of the sampling frame and support to the data collection processes.

Our sincere thanks are directed to UNICEF for providing financial support to carry out the study. Thanks are due to the Dr. Maharajan Muthu, Head, HIV and Children Section; Dr. Pa Pa Win Htin, Health Specialist, HIV and Children Section; Mr. James Gray, Officer In Charge, Child Protection Section; and Daw Khin Thiri Win, Child Protection Section; from UNICEF Myanmar for their valuable comments, suggestions and sharing the literatures.

In particular we are indebted to children affected by HIV and their guardians, staff and volunteers from national and international NGOs, PLHA networks and self-help groups and public staff who are included in the study. Without their participation, this study would be impossible. It is indeed our hope that the results of this study will increase the quality of life and opportunities for HIV affected children and their families across Myanmar.

List of investigators, collaborators and survey team members

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Summary of key findings

- 1,511 HIV-OVC and 1,511 control children were included
- 46.8% of HIV-OVC are orphans
- Mean age of the children was 8.7 ± 4.1 years for both groups
- **Social situation**
  - 24.4% of HIV-OVC families were displaced from their original house to another place
  - 11.5% of family members of HIV-OVC were dispersed to different places
  - 10% of HIV-OVC displaced from his/her family to another house/place
  - 22% of 0 – 4 Years old HIV-OVC do not have birth registration
  - 81.7% of over 10 years old HIV-OVC do not have national registration card
  - 31.9% of HIV-OVC do not include in any household registration
  - 8.6% of 10 – 14 Years old HIV-OVC and 31.2% of 15 – 17 Years old HIV-OVC are currently working
  - Stigma and discrimination was prevalent in extended families, school environment and at rural areas
- 65.6% of 5 to 17 years old HIV-OVC have unmet basic material needs for personal care
- **Education condition**
  - 14.7% of 10-14 years old HIV-OVC are currently out of school
  - School performance of 12.1% of HIV-OVC were below average
  - Orphan/HIV-OVC school attendance ratio was 0.9 which shows relative disadvantage in school attendance
- **Economic situation**
  - 66.4% of HIV-OVC families do not possess a house
  - 29.2% of their houses do not have electricity
  - 17.9% use insanitary latrine
- **Health and nutritional status**
  - 24% of HIV-OVC are HIV positive (366 children out of 1511)
  - 74.9% of them have already started ART
  - Among under 5 years old HIV-OVC, 36% are underweight, 39.9% are stunted, 18.2% are wasted
- **Support received by HIV-OVC families within one year**
  - 87.7% of HIV-OVC families received any type of support within one year
  - Commonest types of supports were health care (80.9%), nutrition support (50.0%) and education support (18.8%)
  - 24.8%, 15.9%, 10.5% and 13.9% of the children received nutrition, health care, economic and home-based care support
  - No OVC specific programs in many study townships

Executive Summary

A nationwide situation analysis on orphans and vulnerable children infected and affected by HIV/AIDS was conducted in 30 townships from 13 States and Regions of Myanmar during June 2013 to May 2014. The study aimed to identify and highlight the situation faced by HIV-OVC around the country in order to provide accurate information to policy and decision makers and those responsible for the implementation of programs for affected children and their families. The specific objectives of the study were to find out and compare the social situation, household economic condition, general health and nutritional status of HIV-OVC and their families with that of the children in the neighborhood; to verify the accessibility to health care services among HIV-OVC or CABA and their families; and to determine the awareness and perception of public and private service providers on HIV-OVC or CABA.

The study is a cross-sectional comparative study applying both quantitative and qualitative research methods. HIV-OVC were defined as children under 18 years old who affected and/or infected by HIV/AIDS including single and double orphans due to HIV/AIDS and children whose parents are living with HIV (father/mother/both). Study populations included HIV-OVC, guardians or care givers of children and service providers from both the public and private sectors. A minimum of 50 HIV-OVC and 50 control group children were recruited from each study township. A series of qualitative and quantitative tools were used to gather the data which forms the body of this report.

A total of 1,511 HIV-OVC or CABA and 1,511 control children were included in the study. Sex distribution was almost the same with girls making up just over 50% in both and the mean age of the children was 8.7 ± 4.1 years for both groups. Among HIV-OVC, 46.8% were orphans comprising 28.9% paternal orphans, 6% maternal orphans and 11.9% double orphans. The median monthly family income was 100,000 Kyats in HIV-OVC families and 150,000 Kyats in the control group.

Overall the study shows that HIV affected children are worse-off in all indicators than their non-affected counterparts. HIV children and their families were more likely to be displaced from their homes and members dispersed due to HIV in the family. HIV affected children were less likely to have birth registration and, for older children, identity cards. Similarly, lesser proportions of HIV affected children were included in any household registration. More HIV affected children worked and fewer went to school. HIV affected children were less likely to have their basic material, health and nutritional needs met. These conditions ring warning bells for all those concerned with child protection and upholding children's rights; at township regional and national levels. Nearly a quarter of HIV-OVC were HIV infective and considerably higher proportions of HIV affected children were wasted, underweight and stunted in comparing to the control children. Despite some apparent decrease in stigma and discrimination this issue was still prevalent within the extended families, school environment and in rural areas.

On the positive side, there are an increasing number of organizations working to meet the needs of HIV affected children and their families. They look for long term sustainable solutions that respect the dignity of HIV affected families and encourage them to stand on their own, for example, through income generation programs and skills training.

The study resulted in the following recommendations:

Health sector related recommendations

(1) Establishment of long term strategies is suggested for improving the nutritional status of HIV-OVC as prevalence of both acute and chronic malnutrition were very high
(2) Strengthening of disclosure counseling and adherence counseling should be done for positive children
(3) Reassessment of PMCT services is recommended to identify completeness in receiving cascade of PMCT services since 20% of less than 5 years old children from study group were HIV positive

Social protection related recommendations

(4) Fostering income generation activities of HIV affected families is recommended to improve the socio-economic situation which could enhance the overall development of children and their families
(5) The needs of out of school and positive adolescents should be partially addressed through psychosocial support, livelihood development initiatives and job placement

Education related recommendations

(6) The ongoing education reform processes should include training for teachers to enable them to be catalysts for greater acceptance and understanding of children affected by HIV

In general, strategic plans should be drawn up for long term programs addressing the overall development of HIV-OVC including education, nutrition and health.

Situation Analysis on Orphans and Vulnerable Children Infected and Affected by HIV and AIDS in Myanmar

1. Introduction

The HIV pandemic remains a serious global challenge to public health with AIDS the leading cause of death worldwide for people aged 15 to 49. According to UNAIDS in 2012 there were between 32.2 million and 38.8 million people living with HIV globally; 2.3 million new infections and 1.6 million deaths. Despite improvements in treatment and prevention programs these numbers are staggering and a cure or vaccine for HIV continues to be evasive.

HIV & AIDS affects children[1] in many significant ways including higher infant and child morbidity and mortality rates; lower life expectancy and higher rates of orphaning.[2] By the end of 2009, the HIV epidemic had left behind 16.6 million AIDS orphans, defined as those aged under 18 who have lost one or both parents to AIDS.[1] The estimated number of children under 15 years of age living with HIV in 2012 was 3.3 million with 260,000 new infections. Moreover, an estimated 370,000 children contracted HIV during the perinatal and breast-feeding period.[1] Because of this, children (both those infected and affected) have become increasingly central to strategies and actions to avert and address the consequences of the epidemic (UNAIDS outlook report 2010)[2].

Most children orphaned by AIDS outside of Africa live in Asia. There is, however, insufficient information available to provide figures for the number of children orphaned by AIDS in individual Asian countries. Even with the expansion of access to antiretroviral treatment, it is estimated that by 2015, the number of orphaned children will still be overwhelmingly high.[3] Whilst the majority of children orphaned as a result of HIV live in Africa the total number of children orphaned by AIDS exceeds 1.1 million[2] although good data and statistics from individual countries in Asia is not available.

Children orphaned by AIDS face particular problems, including dealing with the stigma of a parent dying from the disease and the related emotional impact of this, the economic and social effect on the household of having to care for someone with a long-term chronic and life threatening disease, educational impact and stigmatization.[1,5-8]

HIV & AIDS has many direct and indirect impacts on children's rights, ranging from the consequences of the psychological impact of losing one or both parents, to reduced access to quality education and health services.[9,10] Children's rights to survival, health, development, education as well as protection from economic and sexual abuse have been threatened by the HIV & AIDS epidemic.[11] Previous studies focusing on HIV & AIDS orphans in China and Africa have highlighted the psychological problems[12-14] and problems of unmet basic needs like food inadequacy, discontinuation of schooling and inaccessible to health care services[14] faced by the orphans.

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[1] Children are defined according to the Convention on the Rights of the Child as being anyone under the age of 18 years.

[2] UNICEF (2013) ' Towards an AIDS-Free Generation – Children and AIDS: Sixth Stocktaking Report, 2013'

Myanmar, like other South East Asian countries has felt the impact of the HIV epidemic. According to the National AIDS Program (NAP), it was estimated that adult HIV prevalence is 0.53% in Myanmar.[15] The number of children who have lost one or both parents due to all causes in 2009 was estimated as 1,600,000.[1,3] A previous qualitative study on children orphaned due to AIDS in Myanmar acknowledged the adverse socio-economic consequences they faced including being forced to discontinue school, family dispersion, adverse effects on their family's economic circumstances and suffering from stigma and discrimination.[16] A further study covering three townships of Myanmar showed that 0.5 to 0.8% of children (5-8 children per 1,000) were affected by HIV[17] and detected higher incidence of social and psychological consequences among HIV-OVC.[18] A comprehensive analysis of children affected by HIV and AIDS around the entire country is lacking however. This study aimed, therefore, to identify and highlight their situation across Myanmar in order to influence the development of effective impact mitigation programs for affected children and their families.

2. Objectives

1. To identify the demographic characteristics of children living with HIV and children affected by HIV and AIDS and their families.
2. To find out and compare the social situation of children living with HIV and children affected by HIV and AIDS and their families with that of the children in the neighborhood.
3. To identify and compare the household economy of children affected by HIV and children affected by HIV and AIDS and their families with that of the children in the neighborhood
4. To identify and compare the general health and nutritional status of children living with HIV and children affected by HIV and AIDS with that of the children in the neighborhood
5. To verify the accessibility to social and health care services among children living with HIV and children affected by HIV and AIDS and their families
6. To identify the number of current programs focusing on children living with HIV and children affected by HIV and AIDS at township level
7. To determine the awareness and perception of public and private service providers on children living with HIV and children affected by HIV and AIDS

3. Methodology

3.1 Study design

The study is a cross-sectional comparative study applying both quantitative and qualitative research methods.

3.2 Study population

Operational definition of HIV-OVC or CABA

Children under 18 years of age whose parents are living with HIV (father/mother/both) or lost one or both parents due to AIDS regardless of child's HIV status

Different study populations were included as follows:

- HIV-OVC or CABA defined as above
- Guardians or care givers of these children
- Service providers
  - Providers from public sectors
  - Providers from NGO/INGOs working for HIV-OVC and their families

3.3 Sample Size and Sampling

Sample size determination

To calculate the sample size we assumed that 20% of HIV-OVC faced socio-economic consequences compared to 1% of the control group. To obtain a precision of 1% with 95% confidence intervals, with 2 stage sampling, we recruited 100 HIV-OVC or CABA and 100 control children for each unit township (see below) Sample size is calculated considering the proportions of HIV-OVC who faced socio-economic and educational consequences as 20% and that of among control group as 1%; precision of 0.1; and 95% confidence level. Calculated sample size is multiplied with a design effect of 2 since multi-stage sampling method is used.

P1 = proportion of adverse socio-economic condition among HIV-OVC= 20% = 0.2
P2 = proportion of adverse socio-economic condition among control= 1% = 0.01
r = ratio between two groups =1

$$n = \frac{Z_{\alpha/2}^2 * [(1+1/r)* P\ (1-P)] + Z_{\beta}^2 * [P1(1-P1)+ P2(1-P2)]}{(P1-P2)^2}$$

n1 = n2 = 50
n = 50 + 50 = 100 → N = Design effect * 100 = 2*100 = 200

The calculated sample was recruited from each State/Region. Therefore, 100 cases and 100 controls were needed for each state and region. And we have two townships in each state/region. Then, 50 cases and 50 controls were recruited from each township. However, Yangon Region, Mandalay Region and Shan State were taken as double units and four townships were included. So, total sample size became 200 cases and 200 controls for these 3 states/regions. Kayah and Kachin were taken together as one unit, and only one township from each state was included. Rakhine State was excluded because of security reasons. Therefore, a total of 30 townships from 13 states and regions were included. The list of study townships is shown in Annex (1).

Total N = (400*3 States/Region) + (200*8 States/Region) + (100*2 States) = 3000

Sampling

At each study township, coordination meetings were conducted prior to field data collection. Representatives from all organizations working in the field of HIV/AIDS were invited to learn about the study. From this a list of children living with HIV and children affected by HIV and AIDS was compiled and checked for duplication.

The required numbers of children was selected by simple random sampling using computer generated random numbers. Replacements were made in some cases where staff from local organizations requested that they would not participate. If the randomly selected number coincided with that case, it was replaced by the adjacent number. Sampling of the control group was done by recruiting age-group matched children from the neighboring houses in the same area.

3.4 Outcome variables and indicators

Main outcome variables were as follows:

(1) Social outcomes

- Family displacement[3]: Whole family displaced from their original house to other place
- Family dispersion: Family members dispersed to different places
- Child displacement: A child displaced from his/her family to another house or place
- Birth registration
- National registration card among over 10 years old children
- Household registration: whether a child is included in the household registration
- Working child: whether a child needs to work for income/living
- Basic material needs

(2) Education outcomes

- Current schooling status among 5 – 17 years old children
- Current schooling status among 10 – 14 years old children
- School performance
- Adequacy of school essentials

(3) Psychological outcomes

- Emotional and behavioral problems which were measured by using the Strengths and Difficulties Questionnaire (SDQ)[19,20]

(4) Nutritional outcomes for under 5 years old children

- Weight for height
- Weight for age
- Height/length for age

[3] Both displacement and dispersion were due in part to HIV status

Indicators used in current assessment were as follows:

1. Basic material needs
2. Malnutrition/underweight prevalence
3. External support for orphans and vulnerable children
4. Orphans school attendance ratio
5. Birth registration
6. Percentage of children who are orphans

3.5 Data collection

Preparatory phase

Data collection tools from a previous situation analysis study on HIV-OVC conducted in 2010-2011 were used for the current study after modifying and adding more questions.[21] Guidelines for FGD, IDI and KII were also taken from the previous study. A workshop was conducted for training of research team members. Finally, pre-testing was carried out in Hlaing-Thar-Yar Township, Yangon and modification to the questionnaire made accordingly (Annex-2).

Field data collection

Field data collection activities were carried out with the help of the NAP, District/Township Health Department, staff and volunteers from NGO/INGO, focal persons from Self Help Groups and people living with HIV networks. In each township, interviews were conducted in areas suggested by local people including ART clinics, gathering places of SHG and CBO, NGO/INGO office, religious buildings and homes of the respondents.

Face-to-face interviews were carried out by trained interviewers using a pre-tested, structured questionnaire. This included two sections; the first for parents/guardians and the second for children. Parents/guardians provided answers for both when a child was less than 10 years old or was not available at the time of interview. There were a small number of children who responded for both sections as parents/guardians were not available at the time of interview.

One section of the structured questionnaire was the standardized "Strengths and Difficulties Questionnaire" (SDQ). This is a brief behavioral screening questionnaire for emotional and behavioral disorders in children and adolescents aged 4-16 years. The SDQ consists of 25 items: emotional symptoms (5 items), conduct problems (5 items), hyperactivity/inattention (5 items), peer relationship problems (5 items) and pro-social behavior (5 items).

Weight and height measurements were also done for children under 5 years of age by using well-calibrated and standardized weighing machines and measuring tape. In addition, in-depth interviews (IDI) and key informant interviews (KII) were carried out with representatives from the public sector, NGO/INGOs, CBOs and SHG. These interviews were noted and recorded with digital recorders after verbal informed consent was given.

3.6 Data management and analysis

Quantitative Data

Data entry was completed using EpiData version 3.1 and data analysis was conducted using SPSS version 16.0. Data cleaning was performed by viewing frequency tables and conducting consistency checks Descriptive information was shown as frequency for categorical variables and mean/median for continuous variables. State/region specific information was also computed for main outcome variables. Comparisons of outcome variables between two groups were shown by applying Chi-square statistics/Fisher Exact test or t-test as appropriate

Qualitative Data

Transcripts were prepared from recorded interviews by experienced research assistants. Coding of interviews was completed according to the themes discussed during the interviews. Manual thematic analysis was done after coding.

3.7 Ethical consideration

A research plan was submitted to the Ethics Review Committee of DMR (LM) for ethical justifications and approval was obtained. Guidelines for the research with children and adolescents were strictly adhered throughout the research process. Parents/guardians were asked for consent for the participation of their children and children's assent was also requested according to their ability to understand the research procedures.

3.8 Limitations and strengths of the study

(1) The preparation of the sampling frame was not exhaustive in some townships. However, effort was made to include the list of all eligible children from different sources in each township through local networks and organizations.
(2) About 5-10% of randomly selected children were replaced by other children because of various reasons such as families traveling to other place at the time of survey; parents/guardians were not available at the time of data collection.

Besides limitations, there were strengths of the study.

(1) The study is a nationwide survey covering 30 townships from 13 states and regions across the country.
(2) The list of HIV-OVC or CABA was compiled from different sources in each township ensuring no duplication.
(3) Sampling bias was very small as random sampling was applied to recruit HIV-OVC.
(4) Different study populations and different data collection methods were included and findings were triangulated in order to enhance the validity of the findings.

3.9 Dissemination of the research findings

Research findings were presented at "Dissemination Workshop on Situation Analysis on Orphans and Vulnerable Children Infected and Affected by HIV and AIDS in Myanmar" which was held in Nay Pyi Taw on 6.8.2014. Dr. Kyaw Zin Thant, Director General, Department of Medical Research (Lower Myanmar) delivered the opening remarks and responsible persons from Department of Health; National AIDS Program (NAP); Department of Medical Research (Lower Myanmar); Department of Social Welfare; UNICEF; UNFPA; national and international NGO, PLHA networks, CBO and SHG attended the meeting.

During discussion, clarifications and suggestions were made and wider dissemination research results were also discussed. Moreover, responsible persons from public sector, UN agencies and NGO/INGO have acknowledged to use the research findings in future targeted programs. Discussion points were as follows:

- Dr. Soe Lwin Nyein, Deputy Director General (Disease Control), Department of Health, acknowledged the research findings and also committed to urge National AIDS Program to include HIV-OVC/CABA as one agenda in the future strategy and program
- responsible person from NAP clarified about the findings on HIV positivity among the study group, nutritional status of infected children, and recommendation on PMCT
- suggestion on the format of recommendations
- suggestion on wider dissemination of research findings

Photos from dissemination workshop

Photos from field data collection










Photos from field data collection








Field data collection at hilly areas








4. Findings

4.1 Background characteristics of the participants

- 1,511 HIV-OVC or CABA and 1,511 control
- 46.8% of HIV-OVC or CABA are orphans
  - Paternal orphans: 28.9%
  - 3Maternal orphans: 6.0%
  - Double orphans: 11.9%
- Age distribution of HIV-OVC or CABA
  - 0 – 4 years: 18.9%
  - 5 – 9 years: 35.6%
  - 10 – 14 years: 37.0%
  - 15 years and above: 8.5%
- 77.4% of fathers and 75.9% of mothers who are currently alive are HIV positive

  35.7% of HIV-OVC or CABA stay in extended families

4.1.1 Background characteristics of children

A total of 1,511 HIV-OVC or CABA and 1,511 control-group children were included in the study. Table (1) describes the background characteristics of these children. Sex distribution was almost the same with girls representing just over 50% in both groups (50.9% and 51.4%). Mean age of the children was 8.7 ± 4.1 years for both groups with over two-third in the age range of 5 to 15 years. The majority of the children from control group (96.4%) and over 53% of HIV-OVC or CABA had both parents. The remaining 47% of HIV-OVC or CABA were orphans.

Table 1 Background characteristics of children

Characteristics	CABA (n=1511) n (%)	Control (n=1511) n (%)
Sex of children		
Male	742 (49.1)	734 (48.6)
Female	769 (50.9)	777 (51.4)
Age group (Year)		
0 – 4	286 (18.9)	293 (19.4)
5 – 9	538 (35.6)	542 (35.9)
10 – 14	559 (37.0)	543 (35.9)
≥15	128 (8.5)	133 (8.8)
Parental status		
Both parents alive	804 (53.2)	1457 (96.4)
Paternal orphan	437 (28.9)	48 (3.2)
Maternal orphan	90 (6.0)	6 (0.4)
Double orphan	180 (11.9)	-
Religion		
Buddhism	1223 (80.9)	1196 (79.2)
Christianity	253 (16.7)	277 (18.3)
Islam	29 (1.9)	31 (2.1)
Hindunism	6 (0.4)	7 (0.5)

4.1.2 Background characteristics of parents/guardians

Respondents' background characteristics are shown in Table (2). The majority of parents/guardians were female (83.3% and 89.5%). Age of respondents ranged from 14 to 89 years with the mean age of 39.0 ± 10.7 years in HIV-OVC or CABA group and 38.0 ± 9.5 years in the control group. Around one-third were primary school graduates. Many of them were dependent/unemployed and unskilled labors.

Table 2 Background characteristics of respondents

Characteristics	CABA (n=1511) n (%)	Control (n=1511) n (%)
Sex of respondent		
Male	252 (16.7)	158 (10.5)
Female	1259 (83.3)	1353 (89.5)
Age group (Year)		
≤ 20	32 (2.1)	27 (1.8)
21 – 30	264 (17.5)	321 (21.2)
31 – 40	673 (44.5)	632 (41.8)
41 – 50	360 (23.8)	382 (25.3)
51 – 60	101 (6.7)	112 (7.4)
> 60	81 (5.4)	37 (2.4)
Respondents' relationship with the child		
Father	215 (14.2)	140 (9.3)
Mother	1004 (66.4)	1189 (78.7)
Grandparents	143 (9.5)	72 (4.8)
Uncle/aunt	95 (6.3)	74 (4.9)
Brother/sister	26 (1.7)	31 (2.1)
Others [c]	28 (1.9)	5 (0.4)
Education status of respondents		
Illiterate	145 (9.6)	65 (4.3)
Read and write	348 (23.0)	214 (14.2)
Primary school passed	**503 (33.3)**	**483 (32.0)**
Middle school passed	331 (21.9)	415 (27.5)
High school passed	80 (5.3)	124 (8.2)
University/Graduate/Post-graduate	104 (6.9)	110 (13.9)
Occupation of respondents		
Dependent/unemployed	**490 (32.4)**	**627 (41.5)**
Manual/unskilled labors	**618 (40.9)**	**386 (25.5)**
Private employee	91 (9.4)	60 (4.0)
Government employee	51 (3.4)	170 (11.3)
Own business	201 (13.3)	247 (16.4)
Others	60 (3.9)	21 (1.4)

[a,b] Exclude self-respondents; [c] Others included relatives, neighbors and self respondents.

Table (3) describes the background characteristics of families. Most children from both groups stayed in nuclear family. Median monthly family income was 100,000 Kyats in HIV-OVC families and 150,000 Kyats in the control group. Mean number of family members and number of children were almost the same in both groups.

Table 3 Background characteristics of the families

Characteristics	CABA (n=1511) n (%)	Control (n=1511) n (%)
Family type		
Nuclear family	971 (64.3)	1075 (71.1)
Extended family	540 (35.7)	436 (28.9)
Monthly family income (Kyats)		
Median (IQR)	100,000 (90,000)	150,000 (100,000)
Minimum	5000	5000
Maximum	3,000,000	5,000,000
Number of family members		
Mean ± SD	5 ± 2.3	5 ± 2.3
Less than 5	660 (43.7)	516 (34.1)
5 - 10	**781 (51.7)**	**923 (61.1)**
>10	70 (4.6)	72 (4.8)
Number of children (<18 years)		
Mean ± SD	2.3 ± 1.3	2.5 ± 1.4
Less than 5	1402 (92.8)	1384 (91.6)
5 - 10	102 (6.8)	125 (8.3)
>10	7 (0.5)	2 (0.1)

4.1.3 Health condition of parents of HIV-OVC or CABA

Table 4 HIV and ART status of parents of HIV-OVC or CABA

Characteristics	Number	Percent
HIV status of fathers	(n=894)[a]	
Positive	693	77.5
Negative	126	14.1
Not tested/don't know	75	8.4
ART status of fathers	(n=693)	
On ART	526	75.9
Not on ART	155	22.4
Don't know	12	1.7
HIV status of mothers	(n=1241)[b]	
Positive	1074	86.5
Negative	144	11.6
Not tested/don't know	23	1.9
ART status of mothers	(n=1074)	
On ART	864	80.4
Not on ART	205	19.1
Don't know	5	0.5

[a,b] only for fathers and mothers who are currently alive at the time of survey

HIV and ART status of parents of HIV-OVC or CABA are described in Table (4). Among parents of HIV-OVC who were currently alive at the time of the survey, 77.4% of fathers and 75.9% of mothers were HIV positive. Among positive parents, 75.9% of fathers and 86.5% of mothers have already started ART.

4.2 Social situation of the families

- 24.4% of HIV-OVC or CABA families were displaced from their original house to another place
- 11.5% of family members of HIV-OVC were dispersed to different places
- 10% of HIV-OVC displaced from his/her family to another house/place
- 22% of 0 – 4 Years old HIV-OVC or CABA do not have birth registration
- 81.7% of over 10 years old HIV-OVC do not have national registration card
- 31.9% of HIV-OVC do not include in any household registration
- 8.6% of 10 – 14 Years old HIV-OVC and 31.2% of 15 – 17 Years old HIV-OVC are currently working

...တချို့က အဒေါ်တွေ ဦးလေးတွေနဲ့ နေကြရတယ် .. သူတို့မှာလည်း ကိုယ်ပိုင် သားသမီးတွေ ရှိတယ် .. တခါတလေကျရင် သူတို့ သားသမီးတွေကို ကူးမှာ ကြောက်နေကြတယ် .. အဲဒီ ပြဿနာလေးတွေ ရှိတယ် ...

"... Some children stay with aunts and uncles who have their own children. Sometimes there's a problem ... they worry about the risk of transmission to their children..." (Public service provider, 12 years service)

ကျွန်တော့်မှာ ကလေး (၂) ယောက်ရှိတာ၊ သားမှာပဲ ပိုးရှိတယ်၊ သမီး ကလွတ်တယ်ပေါ့နော်။ သမီးမှာ လွတ်တယ်ဆိုပေမယ့် ၂၀၀၄ လောက်ကဆို ပတ်ဝန်းကျင်ကပြောကြလို့ ကျွန်တော့်မှာ သမီးနဲ့ တောင် လူရှေ့မှာ စကား မပြောရဲဘူး။

"... I've two children... my son is infected but daughter is not infected. Although my daughter is negative, around 2004, I couldn't talk to my daughter in front of others because of environment..." (PLHA, father of two children)

4.2.1 Social condition of children and their families

Table 5 Social conditions of children and their families

Characteristics	CABA (n=1511) n (%)	Control (n=1511) n (%)	p-value
Family displacement [4]			0.0001
Yes	**[369, 24.4]**	**[41, 9.3]**	
Within the same township	232 (15.4)	88 (5.8)	
To other township	92 (6.1)	29 (1.9)	
To other State/Region	45 (3.0)	24 (1.6)	
No	1142 (7.6)	1370 (90.7)	
Family dispersion [5]			0.0001
Yes	**174 (11.5)**	**62 (4.1)**	
No	1337 (88.5)	1449 (95.9)	
Child displacement [6]			0.001
Yes	**151 (10.0)**	**49 (3.2)**	
No	1360 (90.0)	1462 (96.8)	
Have birth register (0 – 4 Years)	(n=286)	(n=291)	0.001
Yes	224 (78.0)	256 (88.0)	
No	**62 (22.0)**	**35 (12.0)**	
Have national registration card (10 – 17 Years)	(n=687)	(n=676)	0.0001
Yes	126 (18.3)	182 (26.9)	
No	**561 (81.7)**	**494 (73.1)**	
Have national registration card (15 – 17 Years)	(n=128)	(n=133)	0.003
Yes	46 (35.9)	71 (53.4)	
No	**82 (64.1)**	**62 (46.6)**	
Put child name in household registration			0.0001
Yes	1029 (68.1)	1171 (77.5)	
No	**482 (31.9)**	**340 (22.5)**	

The social situation of children and their families including family displacement, family dispersion and child displacement are described in Table (5). A significantly higher proportions of CABA families than control families had experienced adverse social consequences: more had been displaced from their homes to other places (24.4% and 9.3%, P=0.0001), family members were dispersed (11.5% and 4.1%, P=0.0001) and children were displaced from their homes to other places (10.0% and 3.2%, P=0.001).

[4] Whole family displaced from their original house to another place
[5] Dispersion of family members to different places
[6] A child displaced from his/her family to another house/place

Among 0 – 4 year old children, a smaller proportion of HIV-OVC or CABA had birth registration compared to the control group (78.3% and 88.0%, P=0.001). Of 15 to 17 year old children, 64.1% of HIV-OVC or CABA and 46.6% of control children did not have national registration cards (P=0.003). Over 30% of HIV-OVC or CABA was not included in the household registration, which was higher than that of control children (31.9% and 22.5%, P=0.0001).

Stigma and discrimination

Stigma and discrimination issues were discussed during KII and IDI although it was not measured in the quantitative assessment. In general, a majority of the respondents stated that awareness and knowledge of the community towards HIV was high and stigma and discrimination was not as significant. However, some respondents mentioned that it was still prevalent within the extended families, school and in rural areas. Few respondents indicated the presence of self-stigma among HIV affected individuals and families.

"...Stigma and discrimination က အတိုင်းအတာ တခုထိတော့ ရှိနေတုန်းဘဲ... အရင်ကထက် စာရင်တော့ အများကြီး လျော့လာပြီ အရင်လောက် မများတော့ဘူး ...ပြဿနာ အတိုင်းအတာလျော့နည်းသွားပြီလို့ ထင်တယ်..."

"Stigma and discrimination is still present to a certain extent. But it's reduced and not much as before. Magnitude of the problem is decreased." (18 years service, Public service provider)

...တချို့က အဒေါ်တွေ ဦးလေးတွေနဲ့ နေကြရတယ် .. သူတို့မှာလည်း ကိုယ်ပိုင် သားသမီးတွေ ရှိတယ် .. တခါတလေ ကျရင် သူတို့ သားသမီးတွေကို ကူးမှာ ကြောက်နေကြတယ် .. အဲဒီ ပြဿနာလေးတွေ ရှိတယ် ကျွန်တော့်ကို မေးဖူးတယ်.. အိမ်ကျဉ်းကျဉ်းလေးမှာ အတူတူနေရတယ် အိပ်ရတယ် ထမင်းအတူတူစားရတယ်... ကူးမှာလားဗျဲ...

"... Some children stay with aunts and uncles ... they also have their own children. Sometimes there's a problem ... they worry about the risk of transmission to their children. Once they asked me that whether it will be transmitted as they have to stay together in a small house, sleep together, eat together..." (Public service provider, 12 years service)

..."....."ရွာက လူတယောက်ဆို လက်ဖက်ရည်ဆိုင်သွားထိုင်တော့ ဆိုင်ကလူက သူသောက်ပြီးတဲ့ ခွက်ကိုခွဲပြီး ပစ်လိုက်တယ် တစ်နှစ်လောက် ဒီမြင်မှာ သွားနေလိုက်ရတယ် ..ဆေးစားပြီး ထူထူထောင်ထောင် ဖြစ်လာမှ ရွာကို ပြန်ဝင်လို့ ရတယ်.."

"... At tea shop, a man from "...." village drink tea and tea cup he used was destroyed. He had to stay at another place for about one year. He could go back to his village when his health condition improved after receiving ART..." (A monk, founder of CBO)

"... ခွဲခြားဆက်ဆံတာမျိုးက သိပ်မရှိတော့ပါဘူး... တချို့က self-stigma ရှိနေတာ၊ self-stigma ဆိုတာ တခြားက ခွဲခြားတာ မဟုတ်ဘူး ...သူ့ဖာသာ ခွဲခြားတာ..."

"Now, stigma and discrimination is not common. Some have self-stigma. It means they were not discriminated by others but discriminate by themselves..." (13 years service, Public service provider)

Some respondents from social organizations working for OVC pointed out a relationship between the stage of the disease, stigma and discrimination and ART provision stigma and discrimination being related to the physical appearance of the patients.

"...အများစုက အဆြေအနေလွန်မှ သိတာလေ...ပြောမယ်ဆိုရင် ပုံပျက်နေပြီလေ.. သူတို့ကိုယ်တိုင် ပတ်ဝန်းကျင်ကို တိုးမဝင်ရဲဘူး..ပတ်ဝန်းကျင်ကလည်း လက်မခံရဲဘူး.. အဲဒီကနေ ဆေးရလာပြီ အသွင်သဏ္ဌာန် ပြောင်းလာပြီဆိုတော့ သူတို့ကိုယ် သူတို့ ယုံကြည်မှု ရှိလာတယ်.. ပတ်ဝန်းကျင်ကလည်း တဖြည်းဖြည်း လက်ခံလာနိုင်တယ်..."

"...Most of them knew at late stage with poor physical condition. Then, they dare not relate with their environment and environment also dare not accept them. When they could receive medicine (ART), physical condition becomes changed. Then, they have self-confidence and eventually environment also accepts them..." (A monk, founder of CBO)

"...He was only 2 years old when we met. He looked very frightened... and he clung on me. He seemed he did not want to get off from me. We'd to take care of him since then..."

A respectful Sayadaw (monk), a founder of a Shwe-Chin-Thay CBO, retold the story of a boy who is a double orphan. The boy's parents passed away when he was about 2 years of age. At that time, he stayed with grandparents; they kept him in a small room and did not take care of him as he was HIV positive. When the Sayadaw (monk) knew about his condition, he came to their house and discussed with his grandparents. They were not willing to take care of him for long time. On that day, Sayadaw decided to take care of him as he was very frightened and clung to him. Now, the boy is 4 years old and stays together with other friends at the monastery.

"... She expired after one and half month of discontinuing ART by herself. She stopped taking the drugs because she felt very shame when her friends noticed that she had to take the drugs regularly while they are studying at tuition..."

Vice-chairman of one CBO retold a story of a girl who passed away one month ago. She was just 15 years old and stayed with her parents. As she was on ART, she had to take the drugs (ART) at regular time. And it was during her tuition class. So, her parents let teachers know about that. Then, her friends noticed about her condition, she felt very shame and did not continue taking the drugs. One month later, she felt ill and was hospitalized. About 20 days later, she was passed away.

4.2.2 Information on working children

Compared with the control group, HIV affected children were more likely to work with increasing age. Among 10 to 14 years old children, 8.6% of HIV-OVC was working for their living/income compared to 4.4% of the control group (P=0.01). The median monthly income was 30,000 Kyats among 10 – 14 years old working children in both groups and 40,000 Kyats for over 15 Years old children in both groups (data is not shown in the table). Types of work varied with the majority of children from both groups working as manual labors (65.6% and 66.7%) (Table 6).

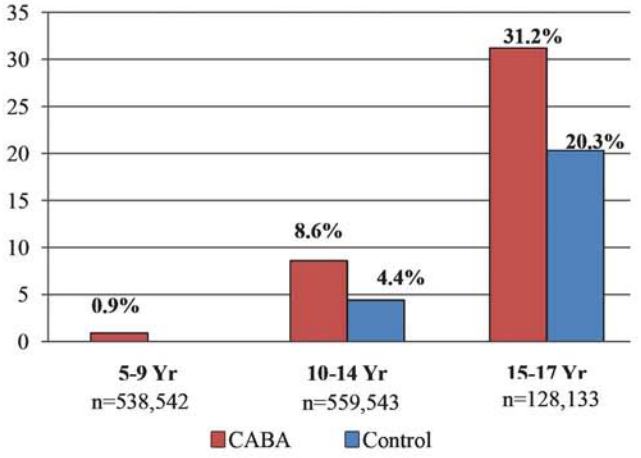


Figure 1 Proportion of working children

Table 6 Type of works children are currently doing

Type of work	CABA (n=1225) n (%)	Control (n=1219) n (%)
Odd jobs/manual labors	61 (65.6)	34 (66.7)
Tea shop/restaurant	8 (8.6)	6 (11.8)
Agriculture/factory/construction	15 (16.2)	7 (13.7)
Trainee worker	6 (6.5)	2 (3.9)
Permanent employee	3 (3.2)	2 (3.9)
Total	93 (100.0)	51 (100.0)

4.3 Basic material needs for personal care

Four items (blanket, slippers, new set of clothes each year, separate clothing for special occasion) were considered basic material needs of children. As outlined in Table (7) below fewer HIV-OVC or CABA possessed these four minimum basic material needs compared to the control group of children (34.4% and 49.5%, P=0.001). In addition, 65.6% of 5 to 17 years old HIV-OVC had unmet basic material needs.

Table 7 Basic material needs for personal care among children (5-17 years)

Basic personal material needs	CABA (n=1225) n (%)	Control (n=1219) n (%)	p-value
Do not possess any basic material need	24 (2.0)	9 (0.7)	0.001
Have one minimum basic material need	1201 (98.0)	1210 (99.3)	
Have two minimum basic material needs	1030 (84.1)	1125 (92.3)	
Have three minimum basic material needs	**763 (62.3)**	**940 (77.1)**	
Have four minimum basic material needs	**421 (34.4)**	**603 (49.5)**	

Core Indicator 1: Basic Material Needs

Ratio of orphaned and vulnerable children (OVC) versus non-OVC who have four minimum basic material needs for personal care

= Proportion (%) of OVC who have four minimum basic material needs for personal care/ Proportion (%) of non-OVC who have four minimum basic material needs for personal care

= 34.4/49.5
= **0.69**

This indicator assesses the capacity of families to provide children with a minimum standard of basic material needs. A ratio of less than "1" indicates the weakness of the social welfare systems in supplying the external support to families to provide for orphaned children.

4.4 Education condition of the children

...“၁၃” နှစ်လောက်ရှိပြီ ..မိန်းခလေး ..စာကောင်းကောင်း မတတ်သေးဘူး ..မေးကြည့်တော့ ကျောင်းတက်တော့ HIV နဲ့ ပတ်သက်ပြီး ဝိုင်းပြောတာခံရတယ် နင့်အဖေအမေတွေက AIDS နဲ့ ဆုံးတာဆိုတော့ ..ကောင်မလေးက ရှက်ပြီး ခုချိန်ထိ ကျောင်းထပ်မတက် တော့ဘူး ..

"A girl about 13 years old, still illiterate ... she left the school since she was blamed for HIV ...and others said her parents passed away from AIDS... then, she felt embarrassed and didn't try to attend the school again ..."

... ဒီကလေး ဒီရောဂါနဲ့ဆိုတာကို ပတ်ဝန်းကျင်က သိတယ် ကလေးက အခု အနာတွေကများနေတော့ လူကြီးတွေကလည်း မပြုစုဘူး ကျောင်းကလက်မခံတော့ ကျွန်တော်တို့သွားပြော တာလည်း မရဘူး ကလေးကလည်း ကျောင်းဆက်မတက်ချင်တော့ဘူး .. အခုအစိုးရကျောင်းကထွက်ပြီး ကျွန်တော်တို့ကျောင်းမှာ (ဘုန်းကြီးကျောင်း) ခေါ်ပြီး သင်ပေးတယ် ..

"... Others know the child has HIV. Now, he is not accepted from the school because of skin infections ... and guardians do not take care of him. Child himself also doesn't want to continue the school. Now, he quits from government school and we let him study at our school (non-formal education run by the monastery)..."

- 14.7% of 10-14 years old HIV-OVC or CABA are currently out of school
- School performance of 12.1% of HIV-OVC were below average
- HIV-OVC/CABA school attendance ratio was 0.9 which shows relative disadvantage in school attendance

Education related characteristics of the children are described in Table (8). Among 5 – 17 years old children, 16.3% of HIV-OVC or CABA are not currently attending school which is significantly higher than that of control children (P=0.0001). Similarly, amongst 10 – 14 year old children, nearly 15% of HIV-OVC or CABA compared to 5.7% of control children were out of school (P=0.0001). School performance of 12.1% of HIV-OVC and 5.7% of controls were indicated by the guardians as below average (P=0.0001).

Table 8 Current schooling status

Characteristics	CABA n (%)	Control n (%)	p-value
Current schooling status among 5-17 years	(n=1224)	(n=1220)	0.0001
Yes	1024 (83.7)	1109 (90.9)	
No	**200 (16.3)**	**111 (9.1)**	
Current schooling status among 10-14 Years	(n=559)	(n=543)	0.0001
Yes	477 (85.3)	512 (94.3)	
No	**82 (14.7)**	**31 (5.7)**	
School performance of children	(n=1024)	(n=1109)	0.0001
Below average	**124 (12.1)**	**52 (4.7)**	
Average	713 (69.6)	823 (74.2)	
Above average	187 (18.3)	234 (21.1)	
Involvement in activities at school	(n=1024)	(n=1109)	
Subject competition	69 (6.8)	104 (9.4)	0.01
Sports competition	255 (25.0)	336 (30.3)	0.003
Religious activities	154 (15.1)	174 (15.7)	0.36

Indicator 2: Orphan/HIV-OVC School Attendance Ratio

The ratio of orphan and vulnerable children compared to non-orphaned children aged 10–14 who are currently attending school

= Orphans' school attendance (%) / non-orphans' school attendance (%)

= 85.3 /94.3

= **0.9**

This indicator assessed progress in preventing relative disadvantage in school attendance between the two groups.

Discussions were also held with key informants regarding education. Many of them mentioned "family economy" as the main reason for children dropping out from school. Some respondents pointed out the prevalence of stigma and discrimination at school as another reasons for discontinuing school. This was more severe if the child was HIV positive.

"...Stigma ကြောင့် ကျောင်းက လက်မခံတာတော့ မကြားဖူးဘူး ... စီးပွားရေးကြောင့်ဘဲ .. ကလေးက အဖေအမေ မရှိဘူး အဒေါ်တွေ အဖွားတွေကလည်း စီးပွားရေးမကောင်းတော့ ကျောင်းလည်း မထားနိုင်ဘူး... ဒီကလေးကို Septrin လေး ရဖို့တောင် ရထားစီးပြီးတော့ လာယူ ရတယ် ဝယ်မတိုက်နိုင်ဘူး"

"...Haven't heard like that ... the child is not accepted from school because of stigma. It's mainly because of economic situation. The child can't go to school because he has no parents and economic condition of grandparents and aunts are also not good... They come here a long way by train for getting Septrin only because they can't even afford the cost of buying Septrin..." (26 years service, public service provider)

..."၁၃" နှစ်လောက်ရှိပြီ ..မိန်းခလေး ..စာကောင်းကောင်း မတတ်သေးဘူး ..မေးကြည့် တော့ ကျောင်းတက်တော့ HIV နဲ့ ပတ်သက်ပြီး ပိုင်းပြောတာခံရတယ် နင့်အဖေအမေ တွေက AIDS နဲ့ ဆုံးတာဆိုတော့ ..ကောင်မလေးက ရှက်ပြီး ခုချိန်ထိ ကျောင်းထပ် မတက် တော့ဘူး ..

"A girl about 13 years old, still illiterate ... she left the school since she was blamed for HIV ...and others said her parents passed away from AIDS... then, she felt embarrassed and didn't try to attend the school again ..." (PLHA, founder of CBO)

"ဒီကလေးတွေကို ကျောင်းမှာ ခွဲခြားခံရတာမျိုးရှိတယ်..အတူတူမဆော့ချင်တာ တတန်းထဲ တခုံထဲ မထိုင်ချင်တာမျိုး လေးတွေ နည်းနည်းတော့ရှိသေးတယ်.. ကျောင်းဆရာတွေကတော့ (ရောဂါအကြောင်း) နားလည်တယ် ... တချို့မိဘက လက်မခံနိုင်ဘူး ဖြစ်နေတယ်.."

"Children were discriminated at school... like doesn't want to play together, doesn't want to sit together... Although the school teachers understand (about the disease), some parents couldn't accept..." (13 years service, public service provider)

One of the key persons from CBO pointed out the adverse education consequences experienced by the HV positive children and guardians' perception about the intelligent level of the children who are on ART.

... ပညာရေးကို ထိခိုက်တာတော့ သူတို့သည် သာမန်လူနဲ့မတူဘဲ ကျောင်းပျက်ရက်များတယ်.. နောက်စွဲနေတဲ့ အစွဲ ရှိတယ်... အုပ်ထိန်းသူတွေက Treatment ယူရတဲ့ ကလေးတွေဆို ... သူတို့ရဲ့ဉာဏ်က သာမန်ကလေးတွေနဲ့ ယှဉ်လို့ မရတော့ဖူး ဆိုတဲ့ ခံစားချက်က ရှိနေတယ် ...

"... Adverse effect on education was that they frequently absent from the school as they are not the same as normal children. Most guardians felt that intelligent status of the child who is on treatment can't compare with the normal child..." (PLHA, father of a positive child, founder of CBO)

4.5 Economic situation of families

- 66.4% of HIV-OVC or CABA families do not possess a house
- 29.2% of their houses do not have electricity
- 17.9% use insanitary latrine
- Proportions of guardians who report inadequate finance for education related expenses
  - 46.8% mention expenses for school stationary
  - 42.1% mention expenses for school uniforms and
  - 43% mention other expenses
- Proportions of guardians who report inadequate finance for health related expenses
  - 48.4% point out expenses for general illness
  - 20.31% point out expenses for chronic illness and
  - 38.6% point out other expenses
- Proportions of guardians who report inadequate finance for food related expenses
  - 4.7% indicate expenses for daily meals
  - 30.6% indicate expenses for snacks

"... လူနာအများစု ကတော့ ရာခိုင်နှုန်းနဲ့ ပြောမယ်ဆိုရင် ၈၀% ထက်မနည်းပေါ့နော် ... စီးပွားရေး အဆင်မပြေတာ များပါတယ်..."

"... Most patients... not less than 80% ... their economic condition is not good..."
(24 years service, public service provider)

...အဖိုး အဖွားတွေက မသန်စွမ်းတဲ့ အရွယ်ရောက်နေပြီ .. မရှာနိုင်ကြတော့ဘူး ဦးလေးတွေ အဒေါ်တွေကဘဲ ရှာဖွေကျွေးမွေးနေရတော့ မိသားစုမှာ Burden ဖြစ်လာတာပေါ့ ...

"...Most grandparents are old aged and they don't have income... Aunts and uncles have to earn and take care ... and it's become burden for the family ..."
(Public service provider, 12 years service)

4.5.1 Household conditions

Household conditions were not significantly different between study and control groups as indicated in Table (9).

Table 9 Information on household conditions

Characteristics	CABA (n=1511) n (%)	Control (n=1511) n (%)	p-value
Type of house			
Thatch/Hut	639 (42.3)	416 (27.5)	
Wooden house	598 (39.6)	739 (48.9)	
Brick and wood	195 (12.9)	241 (15.9)	
Brick	30 (2.0)	81 (5.4)	
Others	49 (3.2)	34 (2.2)	
Possession of house			
Rented	252 (16.7)	222 (14.7)	
Parent's house	457 (30.2)	421 (27.9)	
Stayed free	158 (10.5)	144 (9.5)	
Owned	507 (33.6)	634 (42.0)	
Others	137 (9.1)	90 (6.0)	
Electricity			
Yes	1070 (70.8)	1241 (82.1)	
No	441 (29.2)	270 (17.9)	
Type of toilet			
Sanitary latrine	1240 (82.1)	1315 (87.0)	
Insanitary latrine	271 (17.9)	196 (13.0)	

4.5.2 Family expenses

Table 10 Non-food and food expenses of the households

Characteristics	CABA n (%)	Control n (%)	p-value
Non-food expense (Kyats)	(n=1493)	(n=1504)	
Median (IQR)	27,600 (34,250)	32,000 (36,500)	
Minimum	500	1500	
Maximum	915,000	1,395,000	
Food expense (Kyats)	(n=1495)	(n=1504)	
Median (IQR)	85,100 (59,000)	98,100 (60,000)	
Minimum	2,400	2,000	
Maximum	504,500	953,700	

Household non-food and food are described in Table (10). Non-food expenses varied widely ranging from 500 to 1,395,000 kyats. The median spent on non-food was 27,600 Kyats in the HIV-OVC group and 32,000 Kyats in the control group. Similarly food expenses also varied widely from 2,000 to 953,700 Kyats. The median amount spent on food was 85,100 Kyats in the HIV-OVC group and 98,100 Kyats in the control group.

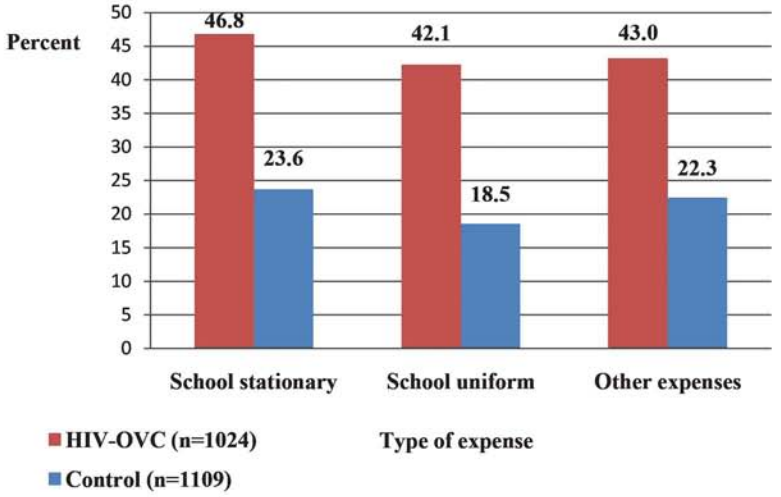


Figure 2 Proportions of guardians who report insufficient finance for education related expenses

Note: Other expenses refer to cost for tuition, donation, festivals, etc apart from school stationary and uniforms

Nearly 47% of guardians of HIV-OVC said that they were unable to cover costs of school stationary. This was considerably greater than of the control group (23.6%) (P=0.0001). Similarly, expenses for school uniforms and other school expenses were considered insufficient by 42-43% of guardians of HIV-OVC or CABA, again significantly higher than that of the control group (18 – 22%) (P=0.0001).

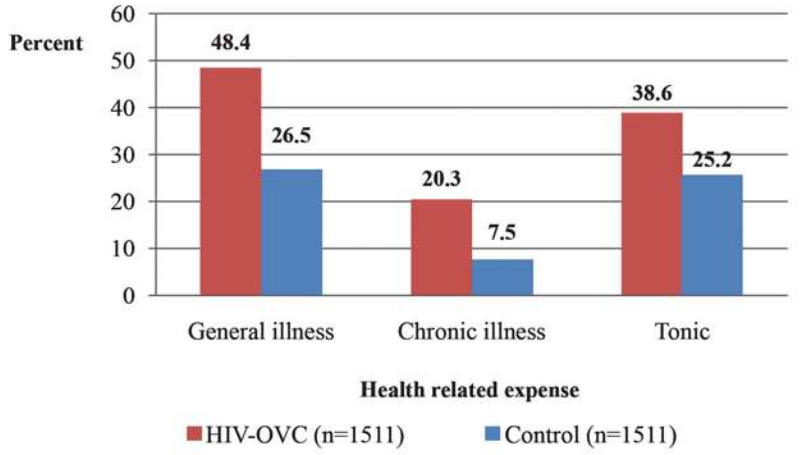


Figure 3 Proportions of guardians who report inadequate finance for health related expenses

Figure (3) shows the perceived insufficiency of funds for health related expenses as described by the parents/guardians. Over 48% of guardians of HIV-OVC or CABA compared to 26.5% of control children mentioned that expenses to treat general illnesses of their children were not sufficient (P=0.0001). Similarly, 20.3% and 7.5% of guardians responded that they had insufficient money for treatment of chronic illnesses (P=0.0001).

As outlined in Figure (4), only a few guardians stated that money for daily meals for the children was not sufficient. However, money for snacks was mentioned as not being sufficient by 30.6% of guardians of HIV-OVC or CABA compared to 13.2% in the control group (P=0.0001).

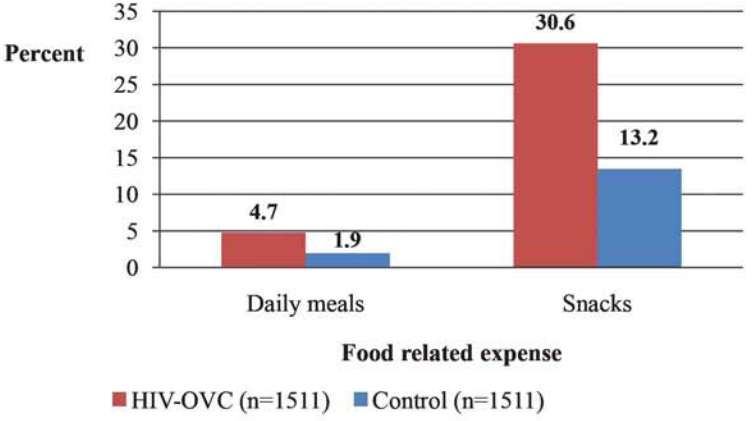


Figure 4 Proportions of guardians who report inadequate finance for food related expenses

4.6 Health and nutritional statuses of the children

- 24% of HIV-OVC are HIV positive (366 children out of 1511)
- 74.9% of them have already started ART
- HIV positivity among HIV-OVC ranged from 14% to 39% at different states and regions
- 36% of under 5 years old HIV-OVC are underweight
- 39.9% of under 5 years old HIV-OVC are stunted
- 18.2% of under 5 years old HIV-OVC shows wasting

...ကလေးကိုယ်တိုင်က ဘာရောဂါရှိမှန်း မသိသေးတာများတယ် .. အမှန်က ကလေး အရွယ်ရောက်လာရင် ရောဂါအခြေအနေ disclose လုပ်ရမှာ .. ကိုယ်တိုင်သိပြီး care လုပ်နိုင်အောင် လုပ်ရမှာပေါ့ **disclosure counseling** လုပ်ဖို့ လိုတယ် ...

... Most children do not aware that they have HIV infection ... actually, disclosure is needed as the child grows old ... let them know ... should make them to care themselves. Disclosure counseling is really needed...

(5 years service, public provider)

...ကလေးတွေက သူတို့ကျန်းမာရေးမကောင်းလို့ ခံခဲ့ရတာကိုသိတယ် ဒါပေမယ့် ဆေးသောက်လို့ ကောင်းလာတဲ့အခါကျတော့ ဒါကို ဆက်သောက်စရာ မလိုဘူးလို့ ထင်လာတယ်... တကယ်တမ်း ဒီကလေးကို **ART counseling** စဉ်ဆက်မပြတ် ဘယ်လို လုပ်ပေးမလဲ ဆိုတာအရေးကြီးတယ်...အဖိုးအဖွားတွေ ဦးကြီးဦးလေးတွေနဲ့ နေတဲ့ကလေးက လိုက်ကြည့်ရင် ဆေးမမှန်ဘူး...မိဘနဲ့နေတဲ့သူတွေတော့ မှန်တယ်...

... Children knew that they were ill because of poor health condition. But their health conditions become well after receiving the medicine (ART). Then they think that they no longer need to take the drugs. Actually, it's important that how ART counseling be provided continuously to the children. Those who stay with grandparents and uncles are not taking the drugs regularly. Only those who stay with parents take the drugs regularly... (A monk, founder of CBO)

Information included under the health and nutritional status of children were:

- HIV and ART status of HIV-OVC
- Information on general illness and history of hospitalization
- Nutritional status among under 5 years old children
- Information on behavior of children between 4 to 16 years using the Strengths and Difficulties Questionnaire (SDQ)

4.6.1 HIV and ART status of HIV-OVC or CABA

HIV status of children is shown in Figure (5). Nearly a quarter (24.2%) of children from the study group was HIV positive and 74.9% of them have already started ART. There was a significant range in HIV infection across states and regions, 14% to 39%, as shown in Table (11). The highest proportion was seen in Tanintharyi Region (39%), Sagaing Region (38.6%), Mon State (28.4%), Mandalay Region (27.9%), and Shan State (26.4%). Among HIV positive children the proportion of children receiving ART varied as described in Table (12). This ranged from 50% in Kayin State to 90.5% in Ayeyarwady Division.

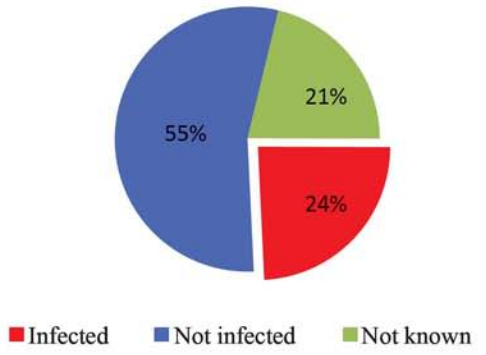


Figure 5 HIV status of HIV-OVC or CABA (n=1511)

Table 11 HIV status of HIV-OVC or CABA according to their localities

Region/State	HIV status among HIV-OVC or CABA n(%)			Total
	Infected	Not infected	Not known	
Yangon	32 (16.0)	107 (53.5)	61 (30.5)	200 (100.0)
Mandalay	**56 (27.9)**	107 (53.2)	38 (18.9)	201 (100.0)
Shan	**53 (26.4)**	126 (62.7)	22 (10.9)	201 (100.0)
Magway	24 (23.8)	45 (44.6)	32 (31.7)	101 (100.0)
Sagaing	**39 (38.6)**	44 (43.6)	18(17.8)	101 (100.0)
Chin	16 (15.7)	46 (45.1)	40 (39.2)	102 (100.0)
Ayeyarwady	21 (21.0)	46 (46.0)	33 (33.0)	100 (100.0)
Bago	22 (22.0)	63 (63.0)	15 (15.0)	100 (100.0)
Kachin	10 (19.2)	33 (63.5)	9 (17.3)	52 (100.0)
Kayah	7 (14.0)	36 (72.0)	7 (14.0)	50 (100.0)
Mon	**29 (28.4)**	61 (59.8)	12 (11.8)	102 (100.0)
Kayin	18 (17.8)	61 (60.4)	22 (21.8)	101 (100.0)
Tanintharyi	**39 (39.0)**	49 (49.0)	12 (12.0)	100 (100.0)

Table 12 ART status of positive children according to their localities

Region/State	ART status		Total
	On ART	Not on ART	
Yangon	25 (78.1)	7 (21.9)	32 (100.0)
Mandalay	45 (80.4)	11 (19.6)	56 (100.0)
Shan	44 (83.0)	9 (17.0)	53 (100.0)
Magway	17 (70.8)	7 (29.2)	24 (100.0)
Sagaing	26 (66.7)	13 (33.3)	39 (100.0)
Chin	10 (62.5)	6 (37.5)	16 (100.0)
Ayeyarwady	**19 (90.5)**	2 (9.5)	21 (100.0)
Bago	14 (63.6)	8 (36.4)	22 (100.0)
Kachin	7 (70.0)	3 (30.0)	10 (100.0)
Kayah	6 (85.7)	1 (14.3)	7 (100.0)
Mon	20 (69.0)	9 (31.0)	29 (100.0)
Kayin	**9 (50.0)**	9 (50.0)	18 (100.0)
Tanintharyi	32 (82.1)	7 (17.9)	39 (100.0)

During the qualitative assessment, some providers and CBO/SHG staff raised issues relating to HIV positive children. Disclosure of HIV status of the children was one of the important concerns indicated by the providers. It was found that most parents of HIV positive children had not told about their status by their parents. Growth retardation and lipo-atrophy were also mentioned by some respondents as an adverse consequence faced by children receiving ART.

"ကလေးကိုယ်တိုင်ကဘာရောဂါရှိမှန်း မသိသေးတာများတယ်..အမှန်က ကလေးအရွယ်ရောက်လာရင် ရောဂါ အခြေအနေ disclose လုပ်ရမှာ..ကိုယ်တိုင်သိပြီး care လုပ်နိုင်အောင်လုပ်ရမှာပေါ့ disclosure counseling လုပ်ဖို့လိုတယ်"

... Most children do not aware that they have HIV infection ... actually, disclosure is needed as the child grows old ... let them know ... should make them to care themselves. Disclosure counseling is really needed... (5 years service, public provider)

... ART အကြာကြီးသောက်ခဲ့ရတဲ့ ကလေးတွေ...ငယ်ငယ်လေးနဲ့ အဆီတွေ အများကြီး ရွှေ့နေပြီး ပါးတွေချိုင့်နေတဲ့ ခလေးတွေ ရုပ်ပိုင်းဆိုင်ရာအရဆိုရင် ကြည့်လိုက်တာနဲ့ မပြောဘဲ သိနေတယ်...

"...Those children who are on ART for long time have a problem of lipid distribution. Others can know them easily by seeing their physical appearance..." (PLHA, founder of CBO)

"...positive ကလေးတွေမှာ failure to thrive ရတယ် ... ကိုယ်အား ဖွံ့ဖြိုးမှု မရှိဘူး..."

"...Positive children have failure to thrive ... they were physically not developed..." (12 years service, public service provider)

ART counseling

Some respondents expressed their concerns about ART adherence among the children. Absent of actual care takers for taking ART in some children was stated as the reason for adherence problem. It was mentioned that children seemed to have little knowledge of the nature of HIV and, in particular, lacked understanding of the need of life-long treatment. Continuous ART counseling for infected children was suggested as an important measure to ensure adherence.

...ကလေးတယောက် ရှိသေးတယ် အဖွားနဲ့နေတာ အဖွားက အသက် ၉၀ နားနီးနေပြီ အခု အဖွားက မကျန်းမာဘူး ကလေးကဆေးတွေ လွတ်နေပြီ.. ဟိုတလောက ဆေးတွေစစ်ကြည့်တော့ မမှန်ဘူး ..ဒီကလေးက သတိကြီးတာကို သိတယ် သူကို သေချာမေးကြည့်တော့ မင်းက ပျောက်ပြီလို့ထင်တာလားဆိုတော့ ဟုတ်တယ်တဲ့ ဒီဆေးက ရောဂါကို ထိန်းထားတာ ဆေးသောက်လို့ကောင်းနေတာ ရပ်လိုက်ရင်ပြန်ဖြစ်မယ်ဆိုတာ သေသေချာချာ ရှင်းပြရတယ် ...

"...There's a child staying with grandma who is about 90 years old. Now grandma is ill and that child missed to take some drug doses. When we checked the drugs, it's not correct. Actually, he is not a careless child. We asked them whether he thought that disease is cured, he said "yes". We've to explain that the drugs just control the disease, he feel well because he takes the drugs and will ill again if he stops the drugs..." (A monk, founder of CBO)

... ကလေးတွေအတွက် ဆေးရုံဖက်က အစီအစဉ်တခု ချပြီး ART counseling ကို စဉ်ဆက်မပြတ် လုပ်သင့်တယ် counseling က မပေးခင်သာ လုပ်လိုက်ကြတာ လုပ်တဲ့အခါမှာလည်း ကလေးကို target မထားဘူးလေ အုပ်ထိန်းသူကိုသာ target ထားလုပ်တာ.. တကယ်တမ်းကျ အုပ်ထိန်းသူက သူ့အလုပ်နဲ့သူ ရှိတယ် လိုက်လာတာလဲ အုပ်ထိန်းသူအစစ် မဟုတ်ဘူး မိဘတွေကလည်း သေသွားကြပြီ.. အခုက ထူထူထောင်ထောင်ဖြစ်ရင် ဆေးကို အာရုံ မစိုက်ချင်ကြဘူး တကယ်သုံးနေတဲ့ကလေးတွေ ဒါကို ဘယ်လောက်နားလည်လည်း ကြည့်ရမယ် (ART အကြောင်း)...

"...From the hospital side, a plan should be developed and ART counseling should be provided continuously for the children. Counseling is done only at the start of ART and it is targeted to the guardians. Actually, guardians have their own jobs to do. Guardians who accompany the children are not actual guardians and parents are also passed away. Now if they feel better, they would not care in taking the drugs. Should see which extent the child understands (about ART) ..." (A monk, founder of CBO)

4.6.2 General illness and history of hospitalization among the children

As outlined inTable (13), incidence of general illness within 6 months and hospitalization within one year showed little variation between the two groups.

Table 13 General illness and history of hospitalization among the children

Characteristics	CABA (n=1511) n (%)	Control (n=1511) n (%)	p-value
General illness within 6 months			0.34
Yes	590 (39.0)	578 (38.3)	
No	921 (61.0)	933 (61.7)	
Hospitalization within one year			0.01
Yes	79 (5.2)	52 (3.4)	
No	1432 (94.8)	1459 (96.6)	

4.6.3 Nutritional status among under 5 years old children

Weight for height, weight for age and height/length for age were calculated to gain a better understanding of the nutritional status of children under 5 years old. Significant differences were detected between the two groups for all three measurements. A higher proportion of HIV-OVC were wasted, underweight and stunted in comparing to control children as shown in Table (14). For example, by calculating weight for height and weight for age, 18.2% and 36% of HIV-OVC or CABA were underweight significantly greater than that of the control group (P=0.0001). Moreover, 39.9% of HIV-OVC or CABA showed evidence of stunted growth, again considerably higher than that of the control group (13.7%) (P=0.0001).

Table 14 Nutritional status among under 5 year old children

Characteristics	CABA (n=286) n (%)	Control (n=293) n (%)	p-value
Weight for height			0.0001
Underweight (wasting)	**52 (18.2)**	**17 (5.8)**	
Normal	214 (74.8)	253 (86.3)	
Overweight	20(7.0)	23 (7.8)	
Weight for age			0.0001
Underweight	**103 (36.0)**	**32 (10.9)**	
Normal	178 (62.2)	258 (88.1)	
Overweight	5 (1.7)	3 (1.0)	
Height for age			0.0001
Stunted growth	**114 (39.9)**	**40 (13.7)**	
Normal growth	172 (60.1)	253 (86.4)	

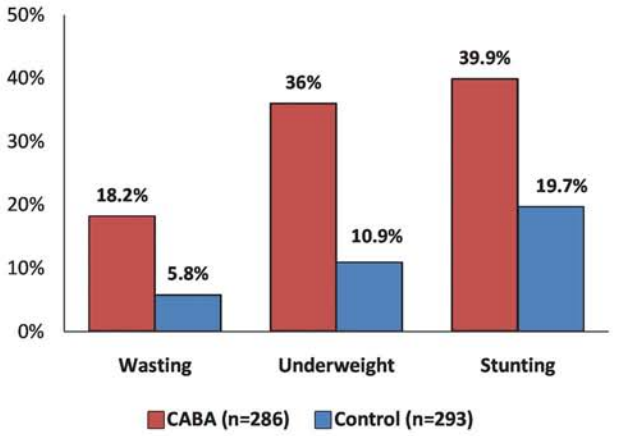


Figure 6 Proportions of wasting, underweight and stunting among under 5 year old children

Table (15) shows the proportions of wasting, underweight and stunted growth among the study and control children showing higher proportions of malnutrition among both infected and affected children than control group.

Table 15 Nutritional status among under 5 year old HIV positive children

Characteristics	CABA (n=286) n (%)		Control (n=293) n (%)	p-value
	Infected (n=59)	Affected (n=227)		
Weight for height				0.0001
Underweight (wasting)	**7 (11.9)**	**45 (19.8)**	**17 (5.8)**	
Normal	48 (81.4)	166 (73.1)	253 (86.3)	
Overweight	4 (6.8)	16 (7.0)	23 (7.8)	
Weight for age				0.0001
Underweight	**27 (45.8)**	**76 (33.5)**	**32 (10.9)**	
Normal	32 (54.2)	146 (64.3)	258 (88.1)	
Overweight	-	5 (2.2)	3 (1.0)	
Height for age				0.0001
Stunted growth	**36 (61.0)**	**78 (34.4)**	**40 (13.7)**	
Normal growth	23 (39.0)	149 (65.7)	253 (86.4)	

During key informant interviews, some respondents pointed out certain nutritional problems among HIV positive children.

"...ရောဂါကြောင့် ကိုယ်ခံအားလည်းကျတယ်.. ကလေးလည်း ဖြစ်တယ် ... တဖက်က nutrition ပြဿနာတွေ ဖြစ်လာရင် ရောဂါ အခြေအနေ ဆိုးသွားတာ တော်တော်မြန်တယ်..."

"... Reduce immunity due to disease ... and as they are children ... if there're nutrition problems, then disease condition become deteriorates very quickly..." (12 years service, public service provider)

"...ART ကြောင့် growth retardation ရတော့ ကလေးတွေက ပုပုသေးသေးလေးတွေ ဖြစ်နေတယ်... အသက်က ၉-နှစ် သာ ရောက်နေတယ် ကြည့်လိုက်ရင် ၄-နှစ်သားလေးလိုဘဲ..."

"... As the children have growth retardation because of ART, they are very short and small. "9" years old child looks like "4" years old ..." (26 years service, public service provider)

4.6.4 Behavior of children between 4 to 16 years old (Strengths and difficulties questions)

A total of 25 items constituted the standard behavioral questionnaire SDQ. These items were categorized into 5 areas: emotional, conduct problems, hyperactivity/ inattention, peer relationship problems and pro-social behavior. Each of the 25 items is scored on a 3 point scale ("0" = "not true", "1" = "somewhat true" and "2" = "certainly true"), with higher scores indicating more significant problems apart from pro-social behavior which scored in reverse. A total difficulties score was calculated by adding emotional, conduct, hyperactivity and peer relationship problem scores. Higher total scores indicate risk of behavioral problems (abnormal behavior). Total scores were categorized as "normal", "borderline" and "abnormal" behavior. Standard scoring and categorizing method is shown in Annex (3).

The mean total difficulties score was significantly higher among HIV-OVC in comparison to control group children (P=0.0001). An abnormal total difficulties score was seen in 13.4% of HIV-OVC and 9.1% of control children. Significant differences were detected between the

two groups except in peer relationship and pro-social behavior categories. The proportion of children with abnormal scores ranged from 4.4% to 39.5% in HIV-OVC and 2.9% to 36.5% in control children.

Table 16 Information on behavior of children between 4 to 16 years old

Characteristics		CABA (n=1288) n(%)	Control (n=1279) n(%)	P-value
Total difficulties score	Normal	892 (69.3)	991 (77.5)	0.0001
	Borderline	224 (17.4)	172 (13.4)	
	Abnormal	**172 (13.4)**	**116 (9.1)**	
	Mean ± SD	11.6 ± 4.4	10.8 ± 4.0	0.0001
Total emotional score	Normal	825 (64.1)	881 (68.9)	0.005
	Borderline	162 (12.6)	166 (13.0)	
	Abnormal	**301 (23.4)**	**232 (18.1)**	
	Mean ± SD	2.9 ± 2.1	2.6 ± 2.0	0.001
Total conduct problem score	Normal	875 (67.9)	895 (70.0)	0.01
	Borderline	216 (16.8)	239 (18.7)	
	Abnormal	**197 (15.3)**	**145 (11.3)**	
	Mean ± SD	2.0 ± 1.5	1.9 ± 1.3	0.04
Total hyperactivity/ or inattention score	Normal	1097 (85.2)	1139 (89.1)	0.01
	Borderline	134 (10.4)	103 (8.1)	
	Abnormal	**57 (4.4)**	**37 (2.9)**	
	Mean ± SD	3.5 ± 1.7	3.3 ± 1.7	0.003
Total peer relationship score	Normal	472 (36.6)	511 (40.0)	0.18
	Borderline	307 (23.8)	301 (23.5)	
	Abnormal	509 (39.5)	467 (36.5)	
	Mean ± SD	3.2 ± 1.6	2.9 ± 1.5	0.005
Total pro-social behavior score	Normal	787 (61.1)	791 (61.8)	0.40
	Borderline	225 (17.5)	239 (18.7)	
	Abnormal	276 (21.4)	249 (19.5)	
	Mean ± SD	6.3 ± 2.1	6.3 ± 2.0	

Key informants pointed out the psychological consequences among the OVC children. Many respondents expressed that most children have psychological trauma and it is more severe in positive children. One concern highlighted by few respondents was issues of positive adolescents who felt hopeless about their future life.

"...HIV/AIDS ဆိုတဲ့ အရိပ်အမည်းက အမြဲတမ်း သူတို့အပေါ်မှာ အမှောင်ဖုံးသလို ဖြစ်နေတော့ ဒီကလေးတွေကို ကျွန်တော်တို့က တတ်နိုင်သမျှ အလင်းလေးပေးနိုင်မှ သူတို့ မျှော်လင့်ချက်လေး ကောင်းမယ်လို့ ထင်ပါတယ်..."
"... As the dark shadow of HIV/AIDS fall on the life of the children ... we should light up their way as much as we can ... for them to keep good hope ..." (13 years service, public service provider)

"...အပျိုပေါက်အရွယ်ရောက်နေတဲ့ကလေးတွေ ရှိတယ်...သူတို့ကျတော့ ပတ်ဝန်းကျင်နဲ့ သဟဇာတဖြစ်ဖို့ အားနည်းတယ်... သူတို့မှာစိတ်ဒဏ်ရာရှိတယ် ...မိဘတွေကို အပြစ်တင်တာမျိုး...ပတ်ဝန်းကျင်မှာမဝင်ဆံ့တာမျိုး ...မကျေနပ်တာမျိုး... အမူအကျင့်လေးတွေ ထူးထူးခြားခြားဖြစ်နေတဲ့ ကလေးလေးတွေရှိတယ်..."
"...There are children who become puberty ... they have weakness in relationship with their environment. They have psychological trauma. They have some particular behaviors like blaming their parents... failing relationship or unsatisfied with their environment..." (Vice chairman of CBO)

"... HIV ရှိတဲ့ကလေးတွေ ဆယ်ကျော်သက်အရွယ်ရောက်လာတဲ့အချိန်မှာ အခက်အခဲ ဖြစ်လာကြတယ် ..သူတို့ကိုယ်သူတို့ လက်ခံနိုင်ဖို့ တော်တော်ခဲယဉ်းတယ်... ငါတို့ရှေ့ဆက်စရာမရှိတော့ဘူးလို့ မြင်ကြတယ်... ဥပမာ ဆေးသောက်ဖို့ဆို သေသွားလဲ အေးတာဘဲ ဘာလို့သောက်ရမှာလဲ ရှင်နေတော့ရော ဘာလုပ်မှာလဲပေါ့ သူတို့မှာ မျှော်လင့်ချက်ပျောက်နေသလိုဘဲ..."
"...When HIV positive children become adolescents, they have faced difficulties. It's difficult to accept themselves. They thought they have no way to continue. For example, they felt as it's better to die...why do we need to take the drugs... what would happen if we alive. It seems that they have lost their hopes..." (A monk, founder of CBO)

"... OVC ကလေးတွေ မှာ depression ကတော့ အနည်းနဲ့အများ ရှိကြတယ်... ကျန်းမာရေးအရကောင်းနေတောင်ကြည့်လိုက်ရင် နည်းနည်းတော့ ညှိုးတယ်..."
"... OVC children have depression ... mild or moderate. Even their health condition is good, they seem depressing..." (24 years service, public service provider)

4.7 Accessibility to health care services

Accessibility was looked at only in terms of distance from a given health service. A high percentage of respondents (65.3% and 69.3%) indicated that private health centers were most accessible followed by government health centers (26.6% and 25.5%). Over half stated that the services were accessible on foot with the median time to the nearest health center being 10 minutes. Around half of the respondents had experience of seeking health care for their children. Private health centers were commonly utilized. Motorcycles were also used to

access health centres, with a median time of between 14 to 15 minutes taken to reach the closest centre.

4.8 Support received by HIV-OVC or CABA families within one year

The kinds of support received by HIV-OVC families over a one year period are described in Table (17). Common types of support mentioned were health care (80.9%) and nutrition (50%). Education support was mentioned by only 18.8% of the respondents and very few children (0.8%) had received vocational training.

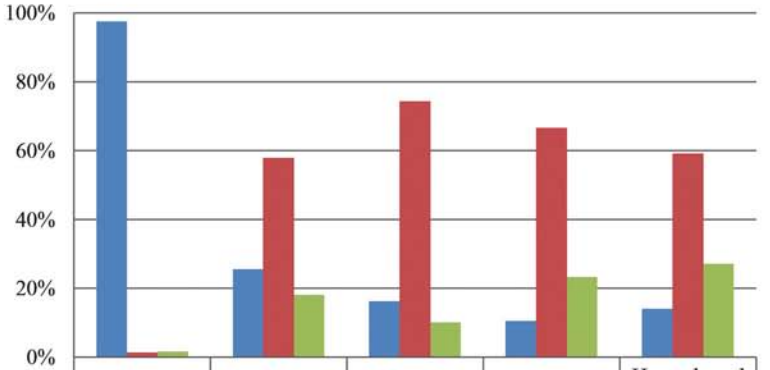
Table 17 Support received by HIV-OVC or CABA families within one year

Characteristics	Number (n=1511)	Percent
Receive any support within one year		
Yes	1325	87.7
No	186	12.3
Type of support		
Education support	284	18.8
Nutrition support	**755**	**50.0**
Health care support	**1222**	**80.9**
Economic related support	86	5.7
Support for living	20	1.3
Home-based care	259	17.1
Vocational training	**12**	**0.8**

Frequency of support given to HIV affected families was varied according to the type of support program [data not shown in table]. About half of the school children (48.9%, 139/284) received annual education support. Among the respondents who received nutritional support, 68.2% (515/755) received it monthly. Similarly, health care support was provided monthly to 60.0% (733/1222) of HIV-OVC or CABA families. On the other hand, home-based care and economic related support were received irregularly by 56.0% (145/259) and 41.9% (36/86) of the families.

Proportions of different target groups according to different types of support are shown in Figure (7). The majority of support was targeted to adults with the exception of education support. Specifically, 24.8%, 15.9%, 10.5% and 13.9% of the children received nutrition, health care, economic and home-based care support.

Figure (8) describes the types of support according to organizations providing it. Nearly half (48.6%) of the education support was provided by CBO/SHG/Network. About 44% of nutrition support was from UN/INGO. For health care related support, 41.7% was provided by government services. Nearly 48% of economic related and 32.4% of home-based care support originated from CBO/SHG/Network.



	Education	Nutrition	Health care	Economic	Home-based care
Children	97.50%	24.80%	15.90%	10.50%	13.90%
Adults	1.10%	57.50%	74.10%	66.30%	59.10%
Both	1.40%	17.70%	10.10%	23.30%	27.00%

Figure 7 Proportions of different target groups according to different types of support

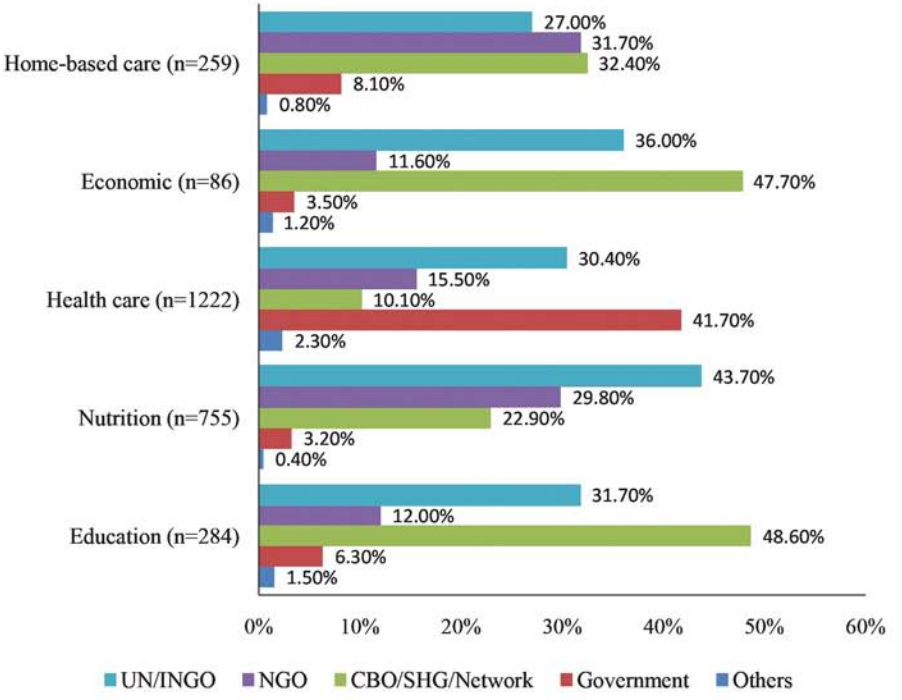


Figure 8 Types of support according to types of organizations

According to key informants, there are no OVC specific programs in a majority of townships. Most care and support programs targeted both infected adults and children. About half of the townships had small scale programs initiated by local organizations (CBOs, SHGs, religious groups etc). Individual donors supporting nutrition and education of children were found in some townships.

"လူကြီးတွေအတွက် လုပ်နေရင်းကဘဲ ကလေး အတွက် လုပ်ပေးတာဘဲ ရှိတယ်... သတ်သတ်လုပ်ပေးတာမရှိဘူး... Care and support ခေါင်းစဉ်အောက်မှာဘဲ လူကြီးလည်း ပါမယ် ကလေးလည်းပါမယ်..."

"...There's no separate program for the children ... it goes together with adults. Under care and support, both adults and children are included..." (10 years service, Public service provider)

"မြန်မာနိုင်ငံ ဆရာဝန်အသင်း ပဲခူးမြို့က ဆရာဝန်ကြီးတွေပေါ့နော် ... သူတို့ရဲ့ ပံ့ပိုးမှုနဲ့ ကလေးတွေကို တလကို ဆန် ၄-ပြည် နဲ့ ကြက်ဥ ၁၀-လုံး ထောက်ပံ့တဲ့ အစီအစဉ်ရှိတယ်...ဆေးရုံတက်ရရင်လည်း ထောက်ပံ့တယ်..."

"...With the support of doctors from Myanmar Medical Association-Bago, there's a program which provide 4-Pyis (1-Pyi=2 Kg) of rice and 10-eggs for the children. Also they support for the hospitalization of the children ..." (12 years service, Public service provider)

There was mixed opinions amongst providers as to the efficacy of different types of support. Some was considered necessary, particularly where the entire community was poor; some mentioned the importance of income generation activities as a more long term solution to economic needs.

"... ဒီမှာက ဒေသအခြေအနေက စီးပွားရေး သိပ်မကောင်းတော့ ကလေးတွေ nutrition က မပြည့်ဝဘူး nutrition ကိုတော့ ထောက်ပံ့စေချင်တယ်..."

"...Here, at this place, nutritional status of the children is poor as their economic situation is poor... So, nutritional support should be provided..." (13 years service, public service provider)

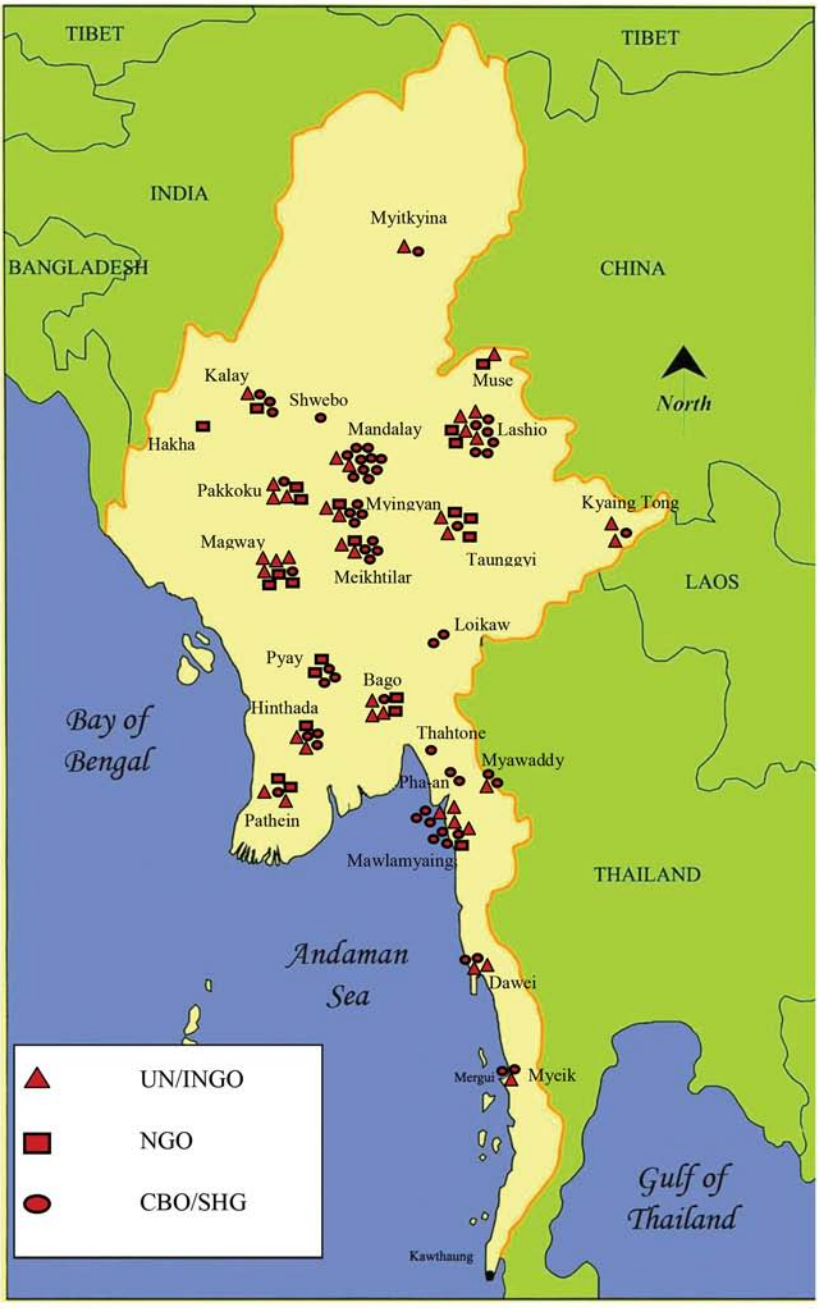
"...ဒီကနေ WFP (World Food Program) ထွက်သွားရင် problem ဘာဖြစ်လာမလဲလို့ စဉ်းစားနေရတယ် လူနာတွေ ပံ့မှန်စားဝတ်နေရေးကို ရပ်တည်နိုင်ပါဦးမလားဆိုတာ၊ ဖြစ်စေချင်တာကတော့ WFP သည် လူနာတွေ income generation ကောင်းကောင်းလုပ်နိုင်တဲ့ အခြေအနေ ရောက်ရင်တော့ ထွက်သွားသင့်တယ်လို့ ထင်ပါတယ်..."

"...I wonder what problem would happen when WFP exit from here... Can patients stand by themselves for their living? I think WFP program should exit if the patients can do income generation well ...." (24 years service, public service provider)

"... ကလေးတွေကို nutrition သွားပေးတာထက်စာရင် ... ဟင်းစားပေးတာထက်စာရင် ကွန်ချက်ပြသင့်တယ် ..."

"... Instead of providing nutrition support for the children ... like the saying ... "instead of giving fish, should teach them how to catch fish"..." (13 years service, public service provider)

4.9 INGO, NGO, CBO and SHG working for HIV/AIDS at the study townships



Detail list of organizations were shown in Annex (4).

4.10 Opinions and suggestions of key informants

KIIs and IDIs were carried out with key informants from the public sector, INGO/NGO and CBO/SHG/Network. All respondents were interviewed only after providing informed consent. A total of (20) public service providers, (9) staff from NGO/CBO/Networks and (3) PLHA participated.

Establishment of long term programs for HIV-OVC or CABA

There were different opinions about the best way to develop long term support programs for children affected by HIV although, in general, long term support was considered more effective and beneficial than short term initiatives. It was suggested that foundations led by community leaders from their respective township could be established. Income generation programs were also considered a viable long term response for affected families.

သူတို့အတွက် ခဏလေး သဘောမျိုးမစဉ်းစားဘဲ ရေရှည် support ဘာလုပ်နိုင်မလဲ ဆိုတဲ့ project မျိုးဘဲ လုပ်သင့်တယ် သူတို့ဖါသာ သူတို့ရပ်တည်နိုင်အောင် mature ဖြစ်လာအောင် လုပ်ပေးတာက အဆင်ပြေမှာပေါ့ ... အခုဖြစ်နေတဲ့ ဘဝမှာ ရပ်တည်တတ်အောင်လို့ အရေးကြီးတယ်...

"... Instead of doing short-term plans, should aim for long term project to support the children. It should plan for the children ... train them to become mature and able to stand by themselves. It's important that they should be prepared for their current life and situation..." (5 years service, public provider)

"...ကိုယ့်မြို့နယ်က ရပ်မိရပ်ဖတွေ စုစည်းပြီးတော့ တခြား Foundation တွေလို ကိုယ်ထူကိုယ်ထ funding လေးနဲ့ ကလေးတွေအတွက် လုပ်မယ်ဆိုရင်တော့ ရေရှည်အတွက် ပိုပြီးတော့ ကောင်းမှာပေါ့..."

"...If community leaders from the township develop a foundation with own funding, then it would be beneficial for long term..." (13 years service, public service provider)

Priority needs for HIV-OVC or CABA

During key informant interviews, many respondents discussed priority needs for HIV-OVC. Most often they highlighted health care support, psychosocial support, education support, empowerment and support for income generation for their families. A majority of respondents mentioned health care support as one of the top priorities for positive children. More than half indicated psychological support as a priority.

"...ကျွန်တော့်အမြင်အရ နံပါတ်(၁) Health support သူတို့တွေ ART တို့ OI treatment တို့ တောက်လျှောက် လိုမယ်... နံပါတ်(၂) ကတော့ ဒီ ကလေးလေးတွေကို psychological rehabilitation လုပ်ပေးနိုင်မယ့် နည်းလမ်းလေးတွေ စဉ်းစားသင့်တယ် သူတို့စိတ်ဓါတ်ရေးရာ ပြည်လည်ထူထောင်ဖို့ အရမ်းအရေးကြီးပါတယ် ဘဝကို ဘယ်လို

ရှင်သန်သင့်လဲ ဘယ်လိုရှန်းကန်သင့်လဲ သူတို့အတွက် ခွန်အားဖြစ်စေမယ့် training လေးတွေ ပေးနိုင်တဲ့ လေ့ကျင့်ရေး center လေးတွေ ရှိရင်တော့ ကောင်းမယ်..."

"... According to my view, No (1) is health support. They (OVC children) need ART and OI treatment for long term. No (2) is we should think of the ways and means for the psychological rehabilitation of the children. It's very important to rehabilitate mentally. It would be better if there's a training center...to educate them how should they survive their lives...how should they struggle" (24 years service, public service provider)

... သူတို့ဘဝ ရှေ့ဆက်မယ့်ခရီးမှာ သူတို့ဘဝကို သူတို့ လျှောက်လှမ်းနိုင်ဖို့က main ဘဲ .. အနည်းဆုံး စာတတ်တဲ့ အဆင့်သည် အဆင်ပြေမယ်... ပြီးရင် လက်မှုပညာ သင်တန်းကျောင်းလေးတွေ .. လုပ်ငန်းခွင်ထဲ ဝင်မယ့်ခလေးဆို computer နဲ့ English skill တွေ ရှိအောင်.. လုပ်ငန်းခွင်ထဲ အသုံးတည့်တာပေါ့ ...

"...Main thing is that the children should be able to stand on their own feet along their future path. At least, it would be good to be literate... Then, arts and craft training school...computer and English skill for those who are going to start working. These would help for their work..." (PLHA, father of a positive child, founder of CBO)

"...အဓိက ကလေးတွေအတွက် လိုအပ်မယ်ထင်တဲ့ဟာကတော့ နံပါတ် (၁) က empowerment ပဲ။ ကလေးတွေကို empower လုပ်ပေးမယ့် အစီအစဉ် တွေလိုမယ်။ နောက်တခုက သူတို့မိသားစုတွေရဲ့လူမှုစီးပွားအခြေအနေကို မြှင့်တင် ပေးမယ့် နည်းလမ်းတွေ ။ ဥပမာ အားဖြင့် micro-finance တို့ income generation တို့... လူမှုရေး နဲ့ စီးပွားရေးကို မြှင့်တင်ပေးလိုက်ရင် ကျန်တာတွေက တော်တော်လေး ကျွံကျူး ရေပါ ဖြစ်လာမယ်ထင်တယ်..."

"... Main needs for the children are ... empowerment is No (1). We need program for empowerment of the children. Next is to find the ways to promote socio-economic condition of their families ... for example- micro-finance, income generation. Promoting their socio-economic situation would lead to the fulfillment of other needs as well like Myanmar saying "kywe koo yay par" "water will follow when the buffalo swims"..." (18 years service, public service provider)

...စာမတတ်တဲ့ကလေးတွေကို စာတတ်အောင်ခေါ်သင်ပေးမယ်..ကလေးတွေက သူဆေးခန်းသွားမယ့် appointment ကို သူ့ ဘိုးဘွား ဖတ်တတ်တဲ့သူ ရှိနေရင်ပြဿနာ မရှိဘူး ... သူတို့မရှိတော့ဘူးဆိုရင် ကိုယ့်ကျန်းမာရေးအတွက် ဘယ်သွားမယ် ဘာလုပ်မယ် စာမတတ်ရင် အရမ်း ဒုက္ခဖြစ်မယ် ...

"... We would like to educate illiterate children to become literate. There was no problem for seeking care at the clinic as appointment till they have guardians who can read. But, they would be in trouble if they passed away..." (PLHA, father of a positive child)

Suggestions for adolescent OVC

For adolescent HIV-OVC counseling and job creation were considered to be the most important priorities. Additionally, creation of job opportunities and training needs for out of school adolescents were also highlighted.

"... အရေးကြီးတဲ့ အပိုင်းကတော့ adolescent ပိုင်းတွေပေါ့ ... အရွယ်ရောက်လာတဲ့ ခလေးတွေကျတော့ နည်းနည်း သိလာတော့ counseling ပိုင်း များများလိုလာမယ်လို့ ထင်တယ် ... မိဘအပေါ် အထင်အမြင် ပြောင်းမသွားဖို့ ၊ မိဘတွေရဲ့ ရောဂါ အနေအထားကြောင့် သူတို့ ဘဝမှာ သိမ်ငယ်စရာ ရှက်စရာ မဖြစ်အောင် နားလည်အောင်ရှင်းပြဖို့ ပိုလိုမယ် ..."

"... Important portion is for adolescents. As they become grown-up, they will need more counseling ... not to blame their parents, not to feel shame because of their parents' disease condition ... should explain them..." (10 years service, public service provider)

"...ART သောက်နေတဲ့ ၁၃-၁၄-၁၅ နှစ် အပျိုလူပျို အရွယ် ကျောင်းမနေတော့တဲ့ ကလေးတွေအတွက် သူတို့ဘဝ ရပ်တည်ဖို့အပိုင်း လုပ်ငန်းခွင်သွင်းပေးဖို့အပိုင်းတွေ လုပ်ပေးဖို့လိုတယ် ရှေ့ပိုင်းက ကလေးတွေ တော်တော် များများက စာမသင်စာမတတ်ဘဲ ကျန်ခဲ့တာများတယ် လက်မှုပညာရပ်တခုခုကို ကျွမ်းကျင်အောင် သင်ပေးဖို့လိုတယ် ကျွန်တော်တို့အဖွဲ့ကလည်း လက်ရှိ မလုပ်ပေးနိုင်သေးဘူး..."

"... For out of school adolescents about 13-14-15 years who are on ART ... arrangements should be made for job placement and in order for them to be able to stand on their own feet. Most children from early period were left uneducated and out of school. They should be trained for arts and crafts. At the moment, our group also could not provide them as such ..." (PLHA, father of a positive child, founder of CBO)

General opinions and suggestions for HIV-OVC or CABA

Some key informants from CBO pointed out the role of environment in development of the children. Awareness promotion to the community was indicated as essential factor in creating supporting environment for them. It was also mentioned that some children were out of reach of the programs. Some parents living with HIV also expressed their hope for the future of the children.

... OVC နဲ့ ပတ်သက်ပြီး အသိဉာဏ်ပွင့်လင်းဖို့ဆိုရင် ပတ်ဝန်းကျင်ကို အများကြီး awareness ပေးဖို့ လိုတယ် .. ခလေးတယောက် ရေရှည်ဖွံ့ဖြိုးရှင်သန်ဖို့ဆိုတာ ပတ်ဝန်းကျင်အများကြီးလိုအပ်တယ် ...ကျောင်းနေချိန်မှာ ကျောင်းကို ပို့ဖို့ ...ကျောင်းမနေနိုင်ဘူး ဆိုလဲ ကိုယ့်ဘဝကိုယ် ရပ်တည်နိုင်ဖို့အတွက် လက်မှုပညာ ဖြစ်ဖြစ် ရှိဖို့လိုတယ်...

"...We need to promote awareness raising to the community if we would like them to aware and know more about OVC. Environment is essential in long term development and survival of the children. Should arrange for schooling if the child is school going age... if they can't go to school, should arrange for learning arts and crafts to be able to stand on their own feet..." (Volunteer, CBO)

တခြားလက်လှမ်းမမှီသေးတဲ့ ကလေးတွေကို community ထဲက ဆွဲထုတ်နိုင်အောင် လုပ်ဖို့လိုပါတယ်.. ရှိလဲရှိနေသေးတယ်ပေါ့နော်

"There are children in the community who are out of reach of the programs ... we should try to reach them..." (Nun, in-charge of CBO)

"...ကျွန်မသမီးကို သက်တမ်းစေ့ နေစေချင်တယ် .. ကျန်းကျန်းမာမာနဲ့ သူ့ကို ပညာပြီးဆုံးပြီး အိမ်ထောင်လေးပြု ကလေး ၁-ယောက် လောက်ရပြီး မျိုးဆက်လေးကျန်စေချင်တယ်..."

"...I wish my daughter to stay life long as others... wish for her to be healthy, educated and get married, have one child...leave our generation..." (PLHA, mother of a positive child)

"...Annual report လုပ်တယ် ...အမြဲတမ်းမေးတယ်... ဘာလုပ်ချင်လဲတဲ့..OVC care and support လုပ်ချင်တယ်လို့ အမြဲတမ်းရေးတယ် နှစ်တိုင်း ၁၀ နှစ်လောက်ရှိပြီ .. ကျွန်တော်တို့ မြို့နယ်ရဲ့ လိုအပ်ချက်ပေါ့... ဒါပေမဲ့ တခါမှ မရဘူး"

"...At annual review, we were asked what we would like to do. Every year, since last 10 years till now, we usually write the comment as "we would like to do OVC care and support". But, we didn't get and it never happens ..." (26 years service, public service provider)

PLHA network and income generation

Almost all study townships had PLHA networks one-third of which were well established . Key informants discussed the condition of PLHA networks in their respective township, many suggesting the need for further improvement of network activities. In some areas, although the income generation activities were established, these were not sustained after certain period of time. In particular they spoke about the importance of income generation as can be seen in the following:

"PLHA network တွေအနေနဲ့ ဒီထက်ပိုပြီး develop ဖြစ်သင့်တယ်လို့ ထင်ပါတယ် ... income generation ကိစ္စတွေ social welfare ကိစ္စတွေ..."

"PLHA network should be developed more ... regarding income generation, social welfare ..." (24 years service, public service provider)

... တခြားနိုင်ငံတွေမှာ PLHA network တွေနဲ့ ပတ်သက်လို့ income generation ဆိုတာ well established ဖြစ်နေပြီ လူနာတိုင်းလူနာတိုင်းသည် ကိုယ့်မိသားစု ကိုယ့်ဝင်ငွေလေးနဲ့ ကိုယ့်ကျန်းမာရေးကို စောင့်ရှောက်နိုင်တဲ့ အနေအထား ဖြစ်နေပြီ.. ကျွန်တော်တို့နိုင်ငံမှာ ခုချိန်ထိ လုပ်ထားတာ သိပ်မတွေ့ရဘူး စံပြလောက်အောင် ကောင်းတယ်ဆိုတာ သိပ်မတွေ့ဖေးဘူး...

"...In other countries, PLHA networks have well established income generation. Every patient could take care of one's own health with own family and own income. In our country, we can't see much like that... can't see such an ideal..." (24 years service, public service provider)

"...Income generation အတွက် အရင် တချို့NGO လေးတွေက ဝက်မွေးပေးတာမျိုး ရှိပါတယ်။ Local NGO ပေါ့ Catholic church ကနေပြီးတော့ မွေးပေးတယ် မွေးခိုင်းလိုက်တော့ ဘယ်လိုဖြစ်သလဲဆိုတော့... ပထမ ၂-လ ခု-လ လောက်တော့ ဝက်ကရှိသေးတယ် ၄၅၆-လဆိုရင် ဝက်ကမရှိတော့ဘူး။ ဘာဖြစ်လို့လည်းဆိုတော့ ဝက်စာဖိုး မတတ်နိုင်လို့ ဒီဝက်ကို ပြန်ရောင်းစားပစ်လိုက်တယ် နောက် လောလောဆယ် candle production ဖယောင်းတိုင် ထုတ်ပြီး ရောင်းကြတယ်။ အဲ့ဒီ အမြတ်အစွန်းကို ခွဲပေးတာပေါ့..."

"...Some local NGO like Catholic Church arrange for income generation like breeding pigs. Then, 2-3 months later, pigs were still present. But after 4-5-6 months, no pigs were left. They sold the pigs as they can afford food for the pigs. Currently, they produce and sell the candles and benefits are shared..."

Overall opinions and suggestions about the HIV situation in Myanmar

Many key informants provided opinions of a more general nature. They noted the importance of quality counseling as a key component of HIV prevention, care and treatment and in reducing stigma. Another concern expressed by a few respondents was the need to raise the importance of HIV prevention at a national level.

"...counseling က quality counseling ပေးနိုင်တယ်ဆိုရင် HIV ပိုးနဲ့ အသက်ရှင်နေတဲ့သူတွေအတွက် လူမှု့ပါတ်ဝန်းကျင်နဲ့ နီးစပ်ရာအသိုင်းအဝိုင်းက လက်ခံနိုင်မယ်လို့ မြင်ပါတယ်။ HIV prevention ရော treatment ရော counseling က အရေးကြီးတဲ့ အခန်းကဏ္ဍတစ်ခုကနေ ပါနေပါတယ်။ treatment အတွက်တင် counseling က အရေးပါတာ မဟုတ်ပါဘူး။ PLHA တွေအတွက် social environment မှာ အဆင်ပြေဖို့ အတွက်၊ stigma နဲ့ discrimination လျော့နည်းနိုင်သမျှ လျော့ဖို့အတွက်က counseling ကို tool တစ်ခုအနေနဲ့ သုံးလို့ရပါတယ်..."

"...If quality counseling could be provided, people who live with HIV will be well accepted by their immediate social environment. Counseling is acting as one important role for both HIV prevention and treatment...not only for treatment. Counseling can be used as a tool for PLHA and their social environment, to reduce stigma and discrimination..." (18 years service, public service provider)

"...Awareness promotion ပိုင်းကို ဒီအတိုင်းတော့ ထားလို့ မရဘူး HIV prevention ကို တနိုင်ငံလုံး အတိုင်းအတာအရ ပြန်ပြီးတော့ တိုးမြှင့်သင့်တယ်လို့ ထင်ပါတယ်..." (24 years service, public service provider)

"...Awareness promotion should not be kept as before. HIV prevention should be promoted nationally..." (24 years service, public service provider)

5. Discussion

Demographic characteristics

The study was conducted in 30 townships from 13 states and regions. A total of 1,511 HIV-OVC or CABA and 1511 control children were included. Sex distribution of the children was almost the same and the mean age was 8.7 ± 4.1 years for both groups. Over half (53.2%) of HIV affected children had both parents alive while 11.9% of were double orphans, 28.9% were paternal orphans and 11.9% were maternal orphans. Over one-third (37%) of the children were 10 to 14 years old. In a previous situation analysis study on HIV-OVC or CABA in Myanmar, the proportion of orphans was 56.7%, slightly more than the proportion in the current study (46.8%).[18] This difference may be due to increased availability of ART among adult PLHA leading to reduced mortality and reduced orphaning.

Different demographic patterns were found in two studies done in China among children affected by HIV where 70% and 81% of children were 10 – 14 years old and 29% were double orphans.[22,23] Another study in China conducted among 225 HIV affected households also reported that 52.3% were 10 – 14 years old and 11% lost both parents.[24]

Social situation

Since the UN General Assembly Special Session on AIDS (UNGASS 2001) Myanmar has made significant progress in preventing HIV and addressing the social consequences of the HIV epidemic. This study suggests that, for affected children and their families, that there is still more to be done to address the adverse social and economic consequences of HIV. Children and their parents had experience a range of negative outcomes that have affected their lives in significant ways: about a quarter (24.4%) of families had been displaced from their homes; 11.5% of HIV affected households reported family members being dispersed; 10.0% of children were displaced from their homes. These figures are slightly better than those of a previous pilot study showed 27% of family displacement, 20.3% of family dispersion and 20% of child displacement among HIV affected families[18] however, this discrepancy might be due to the difference in time of the study, the larger study area covered and the larger sample size of the current study.

According to the Convention on the Rights of the Child, every child has the right to a name and nationality and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. This study showed that 78.3% of under-five HIV-OVC have been registered at birth. The remaining 21.7% can face significant disadvantage in accessing school and a variety of services and, as they grow older, access to employment, housing and the ability to participate in society in general. These findings are similar to those reported in the MICS 2011 which reported that 72.4% of under-five children have been registered at birth.[25] Data for HIV affected children over the age of 10 showed a slight increase in registration to 81.7% with 31.9% of affected children not included in the household registration. Working status of HIV affected children was also of concern with 8.6% of 10 – 14 year olds and 31.2% of 15 – 17 year olds currently working.

These statistics have considerable implications for child protection. The study covered 30 townships across the country and, therefore, can be regarded as reflecting the circumstances prevalent throughout Myanmar. In addition to implications around lack of registration, stigma and discrimination, support for education and the greater likelihood of HIV affected children to have to work are serious consequences of the HIV epidemic that cannot be ignored by policy makers and programming alike.

Basic material needs for personal care

Children's right to survival and development are also seen to be at risk. Over one-third (34.4%) of HIV-OVC or CABA possessed the four minimum basic material needs as described in the survey. In other words, 65.6% of HIV-OVC or CABA have unmet basic material. Indicator of basic material need was calculated as ratio of HV-OVC versus control children who have four minimum basic material needs for personal care and it was 0.69. A ratio of less than "1" indicates the weakness of the social welfare systems in supplying the external support to families to provide for orphaned children.[26]

Access to Education

Over 16% of 5 to 17 years old HIV-OVC or CABA and 14.7% of 10 to 14 years old HIV-OVC or CABA were out of school, a significantly higher percentage than that of children from the control group (P=0.0001). HIV-OVC school attendance ratio was 0.9 which shows relative disadvantage in school attendance between HIV-OVC and control children.[26] This situation was reflected in the previous study in Myanmar which documented that 19.4% of 5 to 17 year old HIV-OVC out of school.[18] Similar finding was seen in a Tanzania study where orphans were significantly less likely to be currently attending school.[14]

Health and nutritional status

Among 1,511 HIV-OVC or CABA surveyed, 366 children (24%) were HIV positive out of which 74.9% had already begun ART. The previous HIV-OVC study in three townships of Myanmar conducted in 2010-2011 identified prevalence of HIV among 300 HIV-OVC as 13%[18] indicating higher prevalence of infection amongst affected households than previously found. This suggests a need for increased focus on prevention of mother to child transmission (PMCT) activities which were begun in Myanmar in 2001 and cover most townships. There were many debatable issues underlying the situation including accessibility of pregnant mothers to existing PMCT services, issue of loss to follow up and family displacement after knowing HIV result of pregnant mothers, issue of women who did not receive antenatal care and weakness in identifying the pitfalls of current PMCT strategy and services.

Of further concern was the nutritional status of under-5 year old children. The MICS 2011 revealed that underweight prevalence was 22.6% for moderate underweight and 5.6% for severe underweight; stunting prevalence as 35.1% for moderate stunting and 12.7% for severe stunting; wasting prevalence as 7.9% for moderate wasting and 2.1% for severe wasting.[25] By contrast the prevalence of malnutrition was significantly higher amongst the study group children than children in the control group. Over one-third (36%) of HIV-OVC

or CABA were found to be underweight showing evidence of acute malnutrition. About 40% of HIV-OVC were stunted showing chronic malnutrition and 18.2% of HIV-OVC showed wasting. Proportions of underweight, stunted growth and wasting among HIV positive under 5 year old children were 45.8%, 61% and 11.9% respectively. These indicators call for the urgent attention.

The study showed that 50% of HIV affected families (755/1511) received nutritional support. Among them, 68.2% (515/755) received this on a monthly basis. Despite this, malnutrition was very high among under 5 year old children. Related factors underlying the situation were possibly the prevalence of general poverty and economic hardship among the community. Another factor is that nutritional support provided for children and/or adults was shared among all family members.

Studies from other countries also reported the prevalence of malnutrition among the children. A study in China reported that stunting prevalence among 8 to 15 years old orphan children was 6.4%; underweight prevalence was 4.3%; and wasting prevalence was 11.8%.[12] In a Uganda study, among 98 AIDS orphans, 14% were underweight, 29% were stunted and 3% were wasted.[27] Malnutrition prevalence from our study was much higher than studies from other countries.

Role of people and organizations who care and support HIV affected children

Numerous suggestions were made by the various groups and individuals that supported children affected by HIV. Long term programs were seen as a priority. Community-based organizations and people living with HIV networks play an important role in providing care and support to HIV affected families including their infected and affected children. Among the study group, nearly half of the education support and economic related support, and about one-third of home-based care support within one year were offered by CBO/SHG/Networks. Taking a lead in addressing the needs of affected families by community led organizations is a good sign for the sustainability of support programs in the study townships. Some providers also suggested establishing foundations with the involvement of community leaders. A review of studies done in sub-Saharan Africa had also documented the importance of engaging community members and stakeholders at each step of program development and implementation.[28] The review also indicated that future program priorities include the development of functional linkages between OVC care and support interventions and other key services for young people such as HIV prevention and life-skill education; health services, including access to ART; and livelihood.

6. Conclusion

This nationwide study highlighted the situation of HIV-OVC or CABA particularly focusing on their social, education, health and nutritional situation. Adverse socio-economic and nutritional consequences were detected among HIV-OVC or CABA in comparing them with children from a control group. Importantly, lack of birth registration and national registration among children warrants the attention of authorities responsible for child protection issues in Myanmar. About two-third of HIV-OVC or CABA have unmet basic material needs for personal care. The school attendance ratio of HIV-OVC was 0.9 which shows this group to be relatively disadvantaged compared to non-affected children. About one-fourth of HIV-OVC or CABA are HIV positive which draws attention to further strengthening of PMCT coverage and its activities. An alarming situation of malnutrition prevalence among HIV-OVC calls for urgent attention. There were many HIV-OVC or CABA who do not have OVC specific support programs and this could also be reviewed to ascertain the most effective kinds of support for these children. Community-based organizations and PLHA networks play an important role in providing care and support to HIV affected families including their infected and affected children. Community led organizations taking a lead in addressing the needs of affected families is a positive for longer term sustainability of support programs in the study townships.

7. Recommendations

The study resulted in the following recommendations:

Health sector related recommendations

(1) Establishment of long term strategies is suggested for improving the nutritional status of HIV-OVC as prevalence of both acute and chronic malnutrition were very high
(2) Strengthening of disclosure counseling and adherence counseling should be done for positive children
(3) Reassessment of PMCT services is recommended to identify completeness in receiving cascade of PMCT services since 20% of less than 5 years old children from study group were HIV positive

Social protection related recommendations

(4) Fostering income generation activities of HIV affected families is recommended to improve the socio-economic situation which could enhance the overall development of children and their families
(5) The needs of out of school and positive adolescents should be partially addressed through psychosocial support, livelihood development initiatives and job placement

Education related recommendations

(6) The ongoing education reform processes should include training for teachers to enable them to be catalysts for greater acceptance and understanding of children affected by HIV

In general, strategic plans should be drawn up for long term programs addressing the overall development of HIV-OVC including education, nutrition and health.

References

1. UNAIDS (2010). Global Report: UNAIDS report on the global AIDS epidemic 2010.
2. Joint United Nations Programme on HIV/AIDS, *UNAIDS Outlook Report,* UNAIDS, Geneva, July 2010, p. 7.
3. UNAIDS (2008). Global Report: UNAIDS report on the global AIDS epidemic 2008.
4. UNICEF/UNAIDS (2010). Children and AIDS: Fifth Stocktaking Report
5. UNICEF (2006). Africa's orphaned and vulnerable generations: Children affected by AIDS.
6. Atwine B, Cantor-Graae E and Banjunirwe F. Psychological distress among AIDS orphans in rural Uganda, *Social Science & Medicine* 2005, 61:555-564.
7. Monasch and J. Ties Boerma. Orphanhood and childcare patterns in Sub-Saharan Africa: an analysis of national surveys from 40 countries, AIDS 18 (suppl. 2) 2004: S55-S65.
8. Akwara, P. et al. Who is the vulnerable child? Using data to identify children at risk in the era of HIV and AIDS. *AIDS Care* 2010, 22(9):1066-1085.
9. Carol Coombe. *Mitigating the Impact of HIV/AIDS on Education Supply, Demand and Quality*. A chapter from "AIDS, Public Policy and Child Well-Being" edited by Giovanni Andrea Cornia. UNICEF Innocenti Research Center, Second edition, 2007.
10. Giovanni Andrea Cornia, Mahesh Patel and Fabio Zagonari. "The Impact of HIV/AIDS on the Health System and Child Health". A chapter from "AIDS, Public Policy and Child Well-Being" edited by Giovanni Andrea Cornia. UNICEF Innocenti Research Center, Second edition, 2007.
11. International HIV/AIDS Alliance, Building Blocks: Asia. Briefing notes for communities working with orphans and vulnerable children, www.aidsalliance.org.
12. Zhonghu He and Chengye Ji. Nutritional status, psychological well-being and the quality of life of AIDS orphans in rural Henan Province, China. *Tropical Medicine and International Health* 2007 Oct: volume 12 no 10 pp 1180–1190.
13. Zhao G, Li X, Fang X, Zhao J, Yang H, and Stanton B. Care arrangement, grief, and psychological problems among children orphaned by AIDS in China. *AIDS Care* 2007 October; 19(9): 1075–1082.
14. Makame V, Ani C, Grantham-McGregor S. Psychological well-being of orphans in Dar El Salaam, Tanzania. *Acta Paediatr* 2002; 91(4):459–65.
15. National AIDS Program (2011). HIV estimates and projections, Myanmar 2010-2015. Naypyidaw, Department of Health, Myanmar
16. Myo Myo Mon, Saw Saw, Yin Thet Nu Oo, San Hone, San San Aye, Pyone Thuzar Nge & Tin Zar Aung. Socio-economic and health consequences among HIV/AIDS afffeted families and orphans in Hlinethaya Township. *Myanmar Health Sciences Research Journal*. 2011, Vol 23. No 2. 65-71.
17. Myo Myo Mon, Saw Saw, Khin Ohnmar San, Yin thet Nu Oo, San Shwe. Estimation of Orphans and Vulnerable Children in Selected Areas of Myanmar. A paper presented at *"The 10th International Congress on AIDS in Asia and the Pacific"*. Busan, Korea. 26-30 August, 2011.
18. Myo-Myo-Mon, Saw-Saw, Yin-Thet-Nu-Oo, Khin-Ohnmar-San, Wai-Wai-Myint, San-San-Aye, Pyone-Thuzr-Nge. Threat of HIV/AIDS in children: social, education and health consequences among HIV orphans and vulnerable children in Myanmar. WHO South-East Asia Journal of Public Health 2013;2:41-6.
19. Nyamukapa CA, Gregson S, Lopman B, Saito S, Watts HJ, Monasch R, Jukes MC. HIV-associated orphanhood and children's psychosocial distress: theoretical framework tested with data from Zimbabwe. American Journal of Public Health. 2008 Jan; 98(1):133-41. Epub 2007 Nov 29.

20. Goodman R: The Strengths and Difficulties Questionnaire: A research note. Journal of Child Psychology and Psychiatry and Allied Disciplines 1997, 38(5):581-586.
21. Department of Medical Research (Lower Myanmar), National AIDS Program and UNICEF (2011). Situation analysis of orphans and vulnerable children due to HIV/AIDS in selected townships.
22. China National Commission of Next Generation [CNCNG]. A survey of AIDS orphans in seven counties. 2003 [Accessed March 25 2005]. Available http://news.xinhuanet.com/newscenter/2003-12/01/content_1206049.htm
23. Xu W, Wang Y, Ji C, He J. Social-psycho problem assessment of children aged 6 to 14 orphaned by AIDS in 5 counties of China. China J AIDS/STD 2006; 12(3):210–211.
24. Wang, Y. Survey of AIDS orphans in two villages in Henan Province. In: Wang, Y., editor. Children/orphans and HIV/AIDS in China. Beijing: Aizhixin Institute of Health Education; 2003a. p. 29-34.
25. Ministry of National Planning and Economic Development and Ministry of Health, Myanmar 2011. Myanmar Indicator Cluster Survey 2009-2010 Final report. Nay Pyi Taw, Myanmar.
26. UNICEF (2005). Guide to monitoring and evaluation of the national response for children orphaned and made vulnerable by HIV/AIDS.
27. Malabika Sarker, Christina Neckermann and Olaf Mu¨ ller. Assessing the health status of young AIDS and other orphans in Kampala, Uganda. Tropical Medicine and International Health. volume 10 no 3 pp 210–215 march 2005
28. Katie D. Schenk, Annie Michaelis, Tobey Nelson Sapiano, Lisanne Brown, Ellen Weiss. Improving the Lives of Vulnerable Children: Implications of Horizons Research Among Orphans and Other Children Affected by AIDS. Public Health Reports / March–April 2010 / Volume 125, 325-336

Annexes

Annex (1) Study townships

No	State/Region	No	Township
1.	Kachin	1.	Myitkyina
2.	Kayah	2.	Loikaw
3.	Ayeyarwady	3.	Hinthada
		4.	Pathein
4.	Bago	5.	Pyay
		6.	Bago
5.	Chin	7.	Tedim
		8.	Ha-kha
6.	Kayin	9.	Myawady
		10.	Pha-an
7.	Magway	11.	Pakkoku
		12.	Magway
8.	Mon	13.	Mawlamyaing
		14.	Thatone
9.	Sagaing	15.	Shwebo
		16.	Kalay
10.	Tanintharyi	17.	Dawei
		18.	Myeik
11.	Mandalay	19.	Chan Mya Tharzi
		20.	Aung Myay Thar Zan
		21.	Meikhtilar
		22.	Myingyan
12.	Shan	23.	Kyaingtong
		24.	Lashio
		25.	Muse
		26.	Taunggyi
13.	Yangon	27.	Kyeemyindine
		28.	South Dagon
		29.	Dala
		30.	Innsein

Annex (2) Questionnaire

Questionnaire for guardian/care giver

Township	_____	
Family ID		
Respondent ID		
Type of child	(1) Study group (2) Control group	
Place where the child live (If the response is from 2 to 5, go to Q 1.14)	(1) Household (2) Orphanage/Institution (3) At work place	

Section 1 Background characteristics

1.1	Type of the family interviewed	(1) Nuclear family (2) Extended family	
1.2	Age of respondent in completed year	_____ Yrs	
1.3	Sex of the respondent	(1) Male (2) Female	
1.4	What is the relationship of the respondent with the child?	(1) Father (2) Mother (3) Grandparent (4) Aunt/uncle (5) Brother/sister (6) Other relatives (7) Adopted parents (no blood relationship) (8) No blood relationship	
1.5	Religion of the respondent	(1) Buddhist (2) Christian (3) Muslim (4) Hindu (5) Others (specify) _____	
1.6	Marital status of the respondent	(1) Single (2) Married (3) Divorced/ separated (4) Widowed (5) Others (specify) _____	
1.7	Occupation of the respondent	(1) Unemployed (2) Manual/unskilled labour (3) Private employee (4) Government employee (5) Farmer/Fisherman/ (6) Small own business	

		(7) Large own business (8) Student (9) Others (specify) _____	
1.8	Education level of the respondent	(1) Illiterate (2) Read and write (3) Primary school passed (4) Middle school passed (5) High school passed (6) University/Graduate (7) Post graduate	|__|
1.9	Are you the head of the household?	(1) Yes (Go to Q 1.14) (2) No	|__|
1.10	Age of the head of household	_____ Yrs	|__|__|
1.11	Sex of the head of household	(1) Male (2) Female	|__|
1.12	Occupation of the head of household	(1) Unemployed (2) Manual/unskilled labour (3) Private employee (4) Government employee (5) Own business (6) Others (specify) _____	|__|
1.13	Education level of the head of household	(1) Illiterate (2) Read and write (3) Primary school passed (4) Middle school passed (5) High school passed (6) University/Graduate (7) Post graduate	|__|
1.14	How many members are there in the house/orphanage?	_____	|__|__|
1.15	How many children (under 18 years) are there in the house/orphanage?	_____	|__|__|
1.16	How many family members contribute to monthly family income?	_____	|__|__|
1.17	Monthly total income of the family?	_____ Kyats/month	|__|__|__|__|__|__|
1.18	Condition of child's parents (For study group only) (5) and (6) refers to chronic diseases and conditions	(1) Both parents alive (2) Father passed away (3) Mother passed away (4) Both passed away (5) One of them is ill (6) Both are ill (7) Others (specify) _____	

1.19	Health condition of parents if they are alive		
	Father (1) Very good (2) Good (3) Just normal (4) Bad (5) Very bad	Mother (1) Very good (2) Good (3) Just normal (4) Bad (5) Very bad	F ___ M ___
1.20	HIV status of father if he is alive (1) Positive (2) Negative (3) Don't know (4) Not tested	HIV status of mother (if alive) (1) Positive (2) Negative (3) Don't know (4) Not tested	F ___ M ___
1.21	ART status of father (1) Yes, on ART (2) No (3) Not relevant (not alive/negative)	ART status of mother (1) Yes, on ART (2) No (1) Not relevant (not alive/ negative)	F ___ M ___

Section 2 Social and education related information

Social related information

2.1	Did the child family displace from original home to another place after his/her parents ill or pass away?	(1) Not displace (2) Yes, displace to another house in the same township (3) Yes, displace to different township (4) Yes, displace to different region/ state (8) Don't know	___
2.2	Is there any family dispersion?	(1) Yes (2) No (8) Don't know	___
2.3	How many siblings does the child have?	_____ (88 - Don't know)	___ ___
2.4	Had the child or his/her sibling been relocated from the original family?	(1) Yes (2) No	___
2.5	Does the child have birth registration?	(1) Yes (2) No (8) Don't know	___
2.6	If the child is over 10 years old, does he have a national registration card?	(1) Yes (2) No (3) Still in the process (8) Don't know	___

2.7	Does the child include as a family member in a household registration?	(1) Yes (2) No (3) Still in the process (8) Don't know	

Education related information

2.8	Has the child ever attended any type of school? (Fill as "not relevant" if the child is <5 Yrs)	(1) Yes (2) No (Go to Q 3.1) (9) Not relevant	
2.9	If yes, what type of school is it? (If more than one place, please take the place which a child attended for longest duration)	(1) Formal government school (2) Non-formal school (3) Monastic education (4) Others _____	
2.10	If yes, years of schooling of the child	_____ years	
2.11	If no, why the child couldn't attend the school?	(1) Can't afford (2) Parent's illness (3) Child's illness (4) Work to earn money (5) Take care of family member (6) badly treated by teachers/ friends (7) Others _____	
2.12	Does the child currently attend any school?	(1) Yes (2) No (Go to Q 3.1)	
2.13	If yes, what type of school is it?	(1) Formal government school (2) Non-formal school (3) Monastic education (4) Others _____	
2.14	If yes, which grade are you in?	_____	
2.15	In this school year, has the child ever absent from the school?	(1) Yes (2) No (Go to Q 2.18)	
2.16	If yes, how many days of absenteeism within 3 months?	_____ days (88 - Don't know)	
2.17	What is/are the cause(s) of school absenteeism?	(1) Child's illness (2) Parent's illness (3) Take care of family member (4) Work to earn money (5) Others _____	
2.18	What do you think of your/your child's school performance?	(1) Below average (2) Average (3) Above average	

Section 3 Household economy related information

Condition of a household and family possession

3.1	Type of current house/orphanage	(1) Room house (2) Thatch/Hut (3) Wooden house (4) Brick + Wood (5) Brick (6) Others _____	☐
3.2	Current house is _____	(1) Rented (2) Parents' house (3) Self-owned (4) Others _____	☐
3.3	Bathing facility of the current house	(1) Separate (2) Shared (3) Public (4) Others _____	☐
3.4	Toilet facility of the current house	(1) Separate (2) Shared (3) Public (4) Others _____	☐
3.5	Type of toilet	(1) Flush to septic tank (2) Covered pit latrine (3) Uncovered pit latrine (4) Others _____	☐
3.6	Is there electricity in your house?	(1) Yes (2) No	☐
3.7	Which kind of household items/ possession does the child's family have? (Can choose more than one answer)	(1) Chicken/Duck (2) Pig/Goat/Cow/Buffalo (3) Radio/Tape recorder (4) Electric fan (5) TV/VCD/DVD (6) Refrigerator (7) Washing machine (8) Air condition (9) Telephone (10) Bicycle (11) Gold (12) Motorcycle/trishaw (13) Car (14) Land (15) House (16) Others (specify)_____	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Household expenditure

3.8	Cost for following items (last month) (1) Electricity (2) Water (3) Education (4) Health (5) General cost	 (1) ---------- Kyats (2) ---------- Kyats (3) ---------- Kyats (4) ---------- Kyats (5) ---------- Kyats	 |__| |__| |__| |__| |__|
3.9	What is the average cost for non-food expenditure? (Calculate from Q 3.8)	_____ Kyats/month	|__|__|__|__| |__|__|
3.10	Cost for following items (last month) (1) Rice (2) Meat/Fish/Egg/Milk (3) Oil (4) Vegetables (5) Peas/beans (6) Snacks	 (1) ---------- Kyats (2) ---------- Kyats (3) ---------- Kyats (4) ---------- Kyats (5) ---------- Kyats (6) ---------- Kyats	 |__| |__| |__| |__| |__| |__|
3.11	What is the average cost for foodstuffs? (Calculate from Q 3.10)	_____ Kyats/month	|__|__|__|__| |__|__|

Section 4 Health and nutrition related information

For all children (Q 4.1 and Q 4.2 are only for the study group)

4.1	HIV status of the child (for study group only)	(1) Positive (2) Negative (Go to Q 4.3) (3) Not tested (Go to Q 4.3) (8) Don't know (Go to Q 4.3)	|__|
4.2	If the child is HIV positive, is he/she on ART?	(1) Yes (2) No (8) Don't know	|__|
4.3	Did you/your child get ill in last 6 months?	(1) Yes (2) No (Go to Q 5.1) (8) Don't know (Go to Q 5.1)	|__|
4.4	If yes, has the child experienced any of the following illnesses?	(1) Cough and cold (2) Pneumonia (3) TB (4) Diarrhea/ dysentery (5) Skin infection (6) Worm infestation (7) Malnutrition (8) Others _____	|__| |__| |__| |__| |__| |__| |__| |__|
4.5	Did you seek care from any health center (clinic/hospital) for the last illness?	(1) Yes (2) No (Go to Q 4.7) (8) Don't know (Go to Q 4.7)	|__|

4.6	If no, why?	(1) Relieve after home treatment (2) Not seriously ill (3) No money to go there (4) Far from home (5) Don't believe in western medicine (6) Others _____	☐ ☐ ☐ ☐ ☐ ☐
4.7	Was there any history of hospitalization within 1 year?	(1) Yes (2) No (Go to Q 5.1) (8) Don't know (Go to Q 5.1)	☐
4.8	If yes, how many times?	_____	☐
4.9	Duration of stay for the last time?	_____ days	☐☐
4.10	In which hospital was the child admitted?	(1) Government hospital (2) Private hospital (3) INGO/NGO clinic (4) Others _____ (8) Don't know	☐

Section 5 Accessibility to social and health care services

5.1	What is the nearest health center?	(1) Public health center (2) NGO/INGO clinics (3) Clinic from social organizations (4) Private clinic/hospital (5) Others _____	☐
5.2	What kind of transportation do you usually use to go there?	(1) On foot (2) Bicycle/Trishaw (3) Motorcycle (4) Boat (5) Car (6) Others _____	☐
5.3	How long does it take to go there (by usual route)?	_____ minutes	
5.4	Have you ever gone to any health care center for the child?	(1) Yes (2) No (Go to Q 5.6) (8) Don't know (Go to Q 5.6)	☐
5.5	If yes, which places?	(1) Public health center (2) NGO/INGO clinics (3) Clinic from social organizations (4) Private clinic/hospital (5) Others _____	☐
5.6	What kind of transportation do you usually use to go there?	(1) On foot (2) Bicycle/Trishaw (3) Motorcycle	☐

		(4) Boat (5) Car (6) Others _____	
5.7	How long does it take to go there (by usual route)?	_____ minutes	
5.8	Have you ever gone to any social welfare center for the child?	(1) Yes (2) No (Go to Q 5.8) (8) Don't know (Go to Q 5.8)	⌊__⌋
5.9	If yes, which places?	(1) Public center (2) NGO/INGO (3) Social organizations (4) Others _____	⌊__⌋
5.10	Did you/your family receive any kind of support within the past 1 year?	(1) Yes (2) No (Go to child questionnaire) (8) Don't know (Go to child questionnaire)	⌊__⌋

(If any support was received, fill in this table)

	Type of support	Target	Frequency	Name of organization
5.9	Education/schooling			
5.10	Nutrition/food			
5.11	Health care			
5.12	Financial			
5.13	Living arrangement			
5.14	Home care			

Target of support: (1) Under-five children (2) School-age children (3) All children (4) All adults (5) All family members (6) Others (specify) _____

Frequency of support: (1) Per-each service (2) Once a month (3) Once in 3 months (4) Once in 6months (5) Once a year (6) Not regular

	Please answer whether the expenses for the children on followings were sufficient or not				
		Sufficient	Insufficient	Not relevant/ don't need	
5.17	Education				
	1. School stationary (Books, Ball pen, Pencils, etc) 2. School uniforms 3. Other school expense (e.g- tuition fees)				
5.18	Health 1. General illness 2. For receiving treatment for chronic illness 3. For buying tonic				
5.19	Food 1. Regular meals 2. Snacks				

Section 6 Psychological status (Strengths and Difficulties Questionnaire)

For 4-16 years old children

	Not true	Somewhat true	Certainly true
Considerate of other people's feeling	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complaints of head-ache, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils, etc)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, or other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Questionnaire for the children

Township	_____	
Family ID		
Respondent ID		
Type of child	(1) Study group (2) Control group	
Place where the child live	(1) Household (2) Orphanage/Institution (3) At work place	

Section 1 Background characteristics of the child

1.1	Age of the child (in completed year)	_____ Years	
1.2	Sex of the child	(1) Male (2) Female	
1.3	Religion of the orphan	(1) Buddhist (2) Christian (3) Muslim (4) Hindu (5) Others (specify) _____	
1.4	Duration of stay with current family or orphanage	_____ months (Fill as "999" if not relevant)	

Section 2 Social and education related information

2.1	Do you have an own slipper? (If the child is under 1 years old, take as "not relevant")	(1) Yes (2) No (3) Don't answer (9) Not relevant	
2.2	Do you have a separate blanket?	(1) Yes, have a separate one (2) Use together with others (3) No blanket at all (4) Don't answer	
2.3	Do you receive a new cloth this year?	(1) Yes (2) No (3) Don't answer	
2.4	Do you have a separate cloth to wear when going out to the ceremonies?	(1) Yes (2) No (3) Don't answer	
2.5	Do you need to work to earn money?	(1) Yes (2) No (Go to Q 2.8) (3) Don't answer (Go to Q 2.8) (9) Not relevant (Go to Q 2.8)	
2.6	If yes, what type of work do you do?	(1) Odd jobs (2) Work at tea shop/restaurant (3) Home helper (4) Agricultural work (5) Work at factory (6) Work at construction site (7) Beggar (8) Others (specify) _____	
2.7	Monthly income	_____ Kyats	

Q 2.8 to Q 2.14 are only for the children who are currently attending the school If the child is out of school (or) less than 5 years old, go to Q 3.1			
2.8	Do you have sufficient school supplies? (Bag, books, pen, pencils, etc)	(1) More than sufficient (2) Sufficient (3) Insufficient (9) Not relevant	
2.9	Do you have a complete set of compulsory text books?	(1) Yes (2) No	
2.10	Is there anyone who helps you to do school lessons at home?	(1) Yes (2) No (Go to Q 2.12)	
2.11	If yes, who helps you with your school work? (please ask only one main person)	(1) Parents (2) Grand parents (3) Uncle/aunty (4) Brother/sister (5) Friend (6) Neighbor/NGO volunteer (7) School teacher (8) Tuition (9) Others (specify) _____	
2.12	Do you have a close friend at school?	(1) Yes (2) No (3) Don't answer	
2.13	Do you have good relationship with your classmates?	(1) Yes (2) No (3) Don't answer	
2.14	Do you participate in following school activities during last year?	(1) School contest (2) Sports contest (3) Religious festivals (4) Others (specify) _____	

Section 3 Health and nutrition related information

For the children less than 5 years old

3.1	Weight of the child	_____ Kg	
3.2	Height of the child	_____ cm	
3.3	Weight for height	_____	

For all children

3.5	How many meals do you have in a day?		
3.6	During last week, did you experience of skipping a meal?	(1) Yes (2) No (Go to Q 3.8) (3) Don't answer (Go to Q 3.8)	
3.7	If yes, what is the reason?	(1) Parent/guardian were busy (2) Parent/guardian haven't come back from work (3) As I was playing (4) As I ate other snacks (5) Parent/guardian didn't have money	

		(6) Do not answer (7) Others (specify) _____	
3.8	How many times have you had meat/fish/egg in last week?		☐☐
3.9	Did you feel hungry during last week?	(1) Yes (2) No (End) (3) Don't answer (End)	☐
3.10	If yes, what is the reason?	(1) Parent/guardian were busy (2) Parent/guardian haven't come back from work (3) As I was playing (4) As I ate other snacks (5) Parent/guardian didn't have money (6) Do not answer (7) Others (specify) _____	☐

Annex (3) Strengths and difficulties questionnaire (SDQ)

Scoring the Informant-Rated Strengths and Difficulties Questionnaire

The 25 items in the SDQ comprise 5 scales of 5 items each. It is usually easiest to score all 5 scales first before working out the total difficulties score. Somewhat True is always scored as 1, but the scoring of Not True and Certainly True varies with the item, as shown below scale by scale. For each of the 5 scales the score can range from 0 to 10 if all 5 items were completed. Scale score can be prorated if at least 3 items were completed.

Emotional Symptoms Scale	Not True	Somewhat True	Certainly True
Often complains of headaches, stomach-aches ...	0	1	2
Many worries, often seems worried	0	1	2
Often unhappy, downhearted or tearful	0	1	2
Nervous or clingy in new situations ...	0	1	2
Many fears, easily scared	0	1	2

Conduct Problems Scale	Not True	Somewhat True	Certainly True
Often has temper tantrums or hot tempers	0	1	2
Generally obedient, usually does what ...	2	1	0
Often fights with other children or bullies them	0	1	2
Often lies or cheats	0	1	2
Steals from home, school or elsewhere	0	1	2

Hyperactivity Scale	Not True	Somewhat True	Certainly True
Restless, overactive, cannot stay still for long	0	1	2
Constantly fidgeting or squirming	0	1	2
Easily distracted, concentration wanders	0	1	2
Thinks things out before acting	2	1	0
Sees tasks through to the end, good attention span	2	1	0

Peer Problems Scale	Not True	Somewhat True	Certainly True
Rather solitary, tends to play alone	0	1	2
Has at least one good friend	2	1	0
Generally liked by other children	2	1	0
Picked on or bullied by other children	0	1	2
Gets on better with adults than with other children	0	1	2

Prosocial Scale	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	0	1	2
Shares readily with other children	0	1	2
Helpful if someone is hurt, upset of feeling ill	0	1	2
Kind to younger children	0	1	2
Often volunteers to help others	0	1	2

The Total Difficulties Score:

is generated by summing the scores from all the scales except the prosocial scale. The resultant score can range from 0 to 40 (and is counted as missing if one of the component scores is missing).

Interpreting Symptom Scores and Defining "Caseness" from Symptom Scores

Although SDQ scores can often be used as continuous variables, it is sometimes convenient to classify scores as normal, borderline and abnormal. Using the bandings shown below, an abnormal score on one or both of the total difficulties scores can be used to identify likely "cases" with mental health disorders. This is clearly only a rough-and ready method for detecting disorders – combining information from SDQ symptom and impact scores from multiple informants is better, but still far from perfect. Approximately 10% of a community sample scores in the abnormal band on any given score, with a further 10% scoring in the borderline band. The exact proportions vary according to country, age and gender – normative SDQ data are available from the web site. You may want to adjust banding and caseness criteria for these characteristics, setting the threshold higher when avoiding false positives is of paramount importance, and setting the threshold lower when avoiding false negatives is more important.

	Normal	Borderline	Abnormal
Parent Completed			
Total Difficulties Score	0 - 13	14 - 16	17 - 40
Emotional Symptoms Score	0 - 3	4	5 - 10
Conduct Problems Score	0 - 2	3	4 - 10
Hyperactivity Score	0 - 5	6	7 - 10
Peer Problems Score	0 - 2	3	4 - 10
Prosocial Behaviour Score	6 - 10	5	0 - 4
Teacher Completed			
Total Difficulties Score	0 - 11	12 - 15	16 - 40
Emotional Symptoms Score	0 - 4	5	6 - 10
Conduct Problems Score	0 - 2	3	4 - 10
Hyperactivity Score	0 - 5	6	7 - 10
Peer Problems Score	0 - 3	4	5 - 10
Prosocial Behaviour Score	6 - 10	5	0 - 4

Annex (4) List of organizations from study townships

Township	Organizations		
	UN/INGO	NGO	CBO/SHG/Network
Aung-Myay-Tharzan (Mandalay)	- Save the Children	-	- New Way - New Star - လမင်းအိမ် - ဖောင်တော်ဦး - ကောင်းကင်ပြာ
Chan-Mya-Tharzi	- MSI		- မေတ္တာရတနာ - ပစ်တိုင်းထောင် - Tri-star - ကြယ်စင်သစ် - ကန်သာယာစေတနာ
Myingyan	- CARE - Union	- Pyi Gyi Khin	- ရွှေခြံအားမာန် - စည်းလုံးခြင်းအင်အား - မေတ္တာရေကြည် - Mr. Lady
Meikhtilar	- PSI - Union	- MCWA	- ရောင်ခြည်ဦး - မေတ္တာရေကြည် - မြတ်နိုးပီတိ လူမှုကူညီရေးအသင်း - ပန်းပျိုးသူ
Taunggyi	- WFP - Union	- Red Cross - MNMA - Ratana Metta	- နေခြည်ဖူး
Lashio	- UNICEF - MSF - PSI - World Concern	- MNMA - MBCA	- Alpha - Rainbow - MSM network - Infinity - Omega - တော်ဝင်သဇင်
Muse	- Save the Children	- MNMA	

Township	Organizations		
	UN/INGO	NGO	CBO/SHG/Network
Kyaing Tong	- World Vision - Malteser		- ရှင်သန်ခြင်း
Loikaw			- ကွန်ရာရဝတီနှင်းဆီ - မေတ္တာဖြိုးဝေ
Myitkyina	- MDM		- အားမာန်သစ်
Pha-an			- ဇွဲကပင်အလင်း - နှင်းဆီဖြူ
Myawadi	- World Vision - IOM		- ရှင်သန်ရှိုင်းပင်းခြင်း
Tedim			
Hakha		- YMCA	
Thatone			- ဆုံဆည်းရာ
Mawlamyaing	- UNICEF - CARE - World Vision - AFXB	- MNMA	- Myanmar Positive Women Network - နွေးထွေးသောရင်ခွင် - မေတ္တာဆုံဆည်း - မေတ္တာရှင် - နောင်ကြိုးမဲ့ - အရုဏ်ဦး - မဟာသီ
Magway	- PC Myanmar - PSI - Save the Children - MSI	- MNMA - MANA - MRCS	- PLHA network
Pakkoku	- Save the Children - ADRA Myanmar - WFP	- MNMA - MBCA	- Hope alive
Shwebo	-		- ရွှေခြေသဲ့
Kalay	- MSI	- MWCA	- သက်တန့်ရောင်ပြန် - သာစည်ပရဟိတကျောင်း - Gospal

Township	Organizations		
	UN/INGO	NGO	CBO/SHG/Network
Bago	- PSI - MSI - World Vision	- MNMA - Network	- PLHA network
Pyay		- MNMA - Ratana Metta	- ဘဝသစ်ရှေ့သို့ - ကရုဏာ - ကောင်းကင်သစ်
Pathein	- MSI - PSI	- MNMA - Pyi Gyi Khin	- PLHA Network
Hinthada	- PSI - Union	- MNMA	- PLHA network - တူညီမေတ္တာ - နေခြည်ဖြိုး
Myeik	- World Vision		- PLHA network - မေတ္တာရေစင်
Dawei	- World Vision - MSF		- Future Light - အနာဂါတ်အလင်းရောင်

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