



Lafiyan Yara

Paediatric HIV project in
Taraba State, Nigeria
Baseline Assessment

October 2019



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COLOFON

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Baseline assessment

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For more information about the Lafiyan Yara project visit:

<https://aidsfonds.org/work/lafiyan-yara>

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal care
ART	Anti-retroviral therapy
EACHEM	Enhancing Access of Children to HIV Services Using Existing Community Mechanisms
EID	Early infant diagnosis
FLHE	Family Life and HIV Education
HCT	HIV counselling and testing
HIV	Human Immunodeficiency Virus
HTS	HIV testing services
IDP	Internally displaced persons
IPH	Institute of Public Health
LGA	Local Government Area
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission
PPMV	Patent and proprietary medicine vendors
SFH	Society for Family Health
TBA	Traditional birth attendant
VHW	Village health worker

Executive Summary

BACKGROUND

Numerous interventions have shown that existing community mechanisms/lay community members are able to provide some health services ordinarily provided in formal healthcare settings/facilities. This was amply demonstrated in the use of community members as health workers in the highly success community directed treatment with Ivermectin (CDTI) intervention for the control of onchocerciasis. Following this, community-based health workers have been used successfully in the delivery of various health interventions including for malaria and diarrhoea diseases control using the integrated Community Case Management (iCCM) as well as for maternal health services. Successes recorded in these applications have prompted further implementation research into how existing community structures can be used to deliver numerous health services within communities. It is thus important to explore how existing lay members of community and structures already existing within communities can be used in the treatment and prevention of HIV.

In late 2018, Aidsfonds called for proposal for improving treatment and care for children living with HIV in Mozambique, Nigeria and/or South Africa. The aim of the call was to support successful civil society organizations to develop, implement and monitor an intervention model to find children exposed to HIV who are missed by the conventional health system approach. The approach to be adopted should find more children living with HIV that do not know their status yet and as early as possible, with a strong focus on prevention of mother-to-child transmission (PMTCT) and the prevention of HIV in children. The approach is also to have both research and service delivery component.

In this regard, the Enhancing Access of Children to HIV services using Existing Community Mechanisms (EACHEM) now known as Lafiyan Yara project is a context-specific community participatory approach that guarantees the rapid identification and linkages of children less than 15 years of age living with HIV in eight LGAs in Taraba State to underutilized HIV testing services (HTS) and prevention of mother-to-child transmission (PMTCT) services in State government-owned facilities. The approach is to help find more children living with HIV that do not know their status yet and as early as possible, with a strong focus on PMTCT and the prevention of HIV in children. The strategy will leverage on the acceptance of community and informal health structures to bridge the gap between households and health facilities for HTS. Lafiyan Yara will use patent and proprietary medicine vendors (PPMV), traditional birth attendants (TBA) and village health workers (VHW) to identify, refer, link and track beneficiary populations to public health facilities where Provider Initiated Testing and Counselling (PITC) would be delivered by trained and supervised health providers.

METHODOLOGY

Although the overall study design of the Lafiyan Yara project is quasi-experimental, this current report is that of the baseline assessment that used a cross-sectional descriptive design. The broad objective of this baseline assessment was to assess exposure to community-based referral for and uptake of HTS services among women who completed term pregnancy in the past year and children under 15 years in intervention and control LGAs. Also, although intervention in the Lafiyan Yara project is to be carried out in eight LGAs, the baseline assessment was conducted in four intervention LGAs (Jalingo, Zing, Bali, Gashaka) and a control LGA (Lau LGAs). The study participants were women who have delivered of a child in past 12 months preceding study at baseline assessment. For each study LGA a minimum sample size of 430 was estimated. A multi-

stage sampling technique was employed, with random sampling at political ward, street/community and household levels, to recruit eligible participants. Study instrument was designed and pretested in line with the study objectives while data collection was by interview administered questionnaire using CAPI (computer assisted personal interview). Data collection was done in October 2019. The study outcomes were analysed and presented with tables and charts. Ethical clearance for this study was obtained from the Institute of Public Health (IPH) Health Research Ethics Committee. Also, permission to conduct the study was obtained from the Taraba State Ministry of Health.



KEY FINDINGS

Reproductive History and Pregnancy Intention: Fifty-six respondents (2.6%) were pregnant during the survey while 32.2% reported that they would like to be pregnant in the year; 68.0% of the respondents had 1 – 4 pregnancies in the past and 77.8% had 1 – 4 deliveries. One in 6 of the respondents had lost a child in the past while 31.8% of these had lost more than one child and most of the deaths (68%) occurred before the child was a year old.

Antenatal Care Utilisation and Choice of Place of Delivery: One thousand eight hundred and thirty-six (84.8%) of the respondents utilised ANC during the last pregnancy and the nurse-midwife was the most frequently seen health care provider. ANC attendance was at the primary or secondary facility except in Jalingo where the most frequently reported facility for ANC was the Federal Medical Centre. Although most of respondents (67.0%) started ANC in the second or third trimester, notwithstanding 69.7% had four or more ANC visits. While the preferred place of delivery if pregnant again is for 58.1% of respondents was on of a general hospital or a primary health facility, 24.2% still prefer to deliver at home.

Knowledge, Opinions and Attitudes and Self-risk Perception about HIV/AIDS: Almost all the respondents (94.5%) had heard about HIV/AIDS and the most frequent sources of the information were health workers, family members and friends/peers. About half of these (49.1%) reported knowing someone living with HIV/AIDS and 50.2% reported knowing someone who died of the disease. Correct knowledge of the routes of transmission was high although myths and incorrect

knowledge was also commonly expressed. Such myths include transmission by mosquitoes and bed bugs, sharing toilets, kissing, witchcraft and sharing eating utensils. Similarly, a high percentage of the respondents knew the correct ways to avoid or prevent HIV/AIDS although several myths and incorrect ways of preventing this disease was also expressed. The percentage of respondents who had correct knowledge of mother-to-child transmission of HIV was least compared with other routes of HIV transmission. However, for HIV transmission from mother to child, respondents were most familiar with transmission of the HIV through breastfeeding (88.9%), during delivery (75%) and during pregnancy (60%). Two-thirds (67.2%) of the respondents knew of drugs to reduce the risk of infection while 75.9% knew of drugs that can prolong the lives of PLWHA. Half of the respondents (57.5%) perceived their risk of HIV as low.

Exposure to Community-based HTS and Uptake of HIV Testing: Three hundred and fifty-eight (17.5%) of the respondents were exposed to community-based referral for HIV test during the last pregnancy; VHW, PMVs, TBAs referred 31 (8.7%), 15 (4.2%) and 14 (3.9%) of those referred respectively. Also, 27% were told to go for the test by their husbands while 11.5% were told by other relatives including, mothers/mothers-in-law, fathers, sisters and aunties. Of the 358 respondents referred, 331 (92.5%) went for the test. The major challenges for not accessing the test after referral were cost of the test" (10, 37.0%), distance or lack of transportation (5, 18.5%) and objection from husband or family members (3, 11%). More than half (56.2%) of those referred were also assisted to access test. For children 0 – 14 years, 255 (4.1%) were referred in the last one year. Referral was made by VHW for 18, (7.1%), PMV for 16 (6.2%) and TBA for 1 (0.4%). However, 36.1% were referred for test by the father of the child while 10.6% were referred told by other relatives including the grandmother, grandfather and aunties. Two hundred and thirty-three (91.4%) of the children were taken for test; the major challenges reported by those who did not attend include fear of possible outcome, "cost" and distance/lack of transportation. Again, the parents received assistance to access the test for 66.5% of the children.

Furthermore, 1651 (80.7%) of all the mothers had ever had an HIV test. Major reasons for not doing the test were "not considered necessary" 66.1%, "cost too much" 18.2%, "fear of outcome" and "husband/family objected" 9.4% each, challenge with transportation 8.6% and for religious reasons 1.0%. Other characteristics of testing include that 82.1% of the respondents had pre-test counselling, 92.1% received the results of test and 85.8% received counselling before disclosure of results. Twelve (0.9%) of the respondents reported that they tested positive but only 11 of these reported they were commenced on treatment to prevent mother-to-child transmission of HIV. One hundred and thirty (8.9%) of last children of the respondents were ever tested but only one was positive, and the child was on treatment. Of the 12 respondents who reported their HIV status as positive, only eight of them had their child from their last pregnancy received early infant diagnosis (EID).

CONCLUSIONS AND RECOMMENDATIONS

A large proportion of the respondents were knowledgeable about HIV/AIDS but the knowledge of mother-to-child transmission of HIV was least known among the routes of HIV transmission. There were on-going community-based activities in the LGAs to refer women and their children for HTS. VHW, PPMVs and TBAs participated in referring pregnant women and their children although the number of such referrals were few. The following are recommended:

1. The knowledge gap in mother-to-child transmission of HIV presents a viable opportunity for health promotion on PMTCT and this should be pursued.
2. This study shows that PPMV, TBA and VHW are underused resources in HIV interventions therefore their roles should be strengthened in identifying and referring pregnant women and children for HIV services.

3. In spite of the widespread knowledge of HIV, there are still people who find it unnecessary to take test therefore activities to address knowledge gaps as well as focusing on behaviour change should continue to be implemented. In addition, efforts should be made to remove other barriers to testing identified by respondents including cost of testing, distance/transport and stigma through economic strengthening of families, more outreach testing/services closer to the people, advocacy for lowering out of pocket costs for testing and dialogues to address stigma/gender inequality.
4. It is recommended that post-test counselling in HTS should be strengthened in Taraba state in order to reduce the number of persons who do not receive test result following testing.



1 Introduction

1.1 Background

Taraba state has a HIV prevalence of 2.9% which is the highest in the Northeast geopolitical zone and the fourth highest in the country after Akwa Ibom, Benue and Rivers States. Antenatal care attendance is 44.5%, lower than the average for the north east geopolitical zone of 62.4%. The estimated proportion of population that are pregnant women and children below 15 years old in the state are 5% and 41% respectively. Drivers of the HIV epidemic include norms that promote multiple concurrent sexual partnerships, low risk perceptions, low awareness of HIV and poor literacy rates. Also, the Family Life and Health Education (FLHE) impact evaluation study showed that the sexual debut for girls in the state is 12 years, this attributes to the high rate of teenage pregnancy in the state. Likewise, there is a low awareness of mother-to-child transmission of HIV

In recent times, the Northeast geopolitical zone has been ravaged by crisis. Consequently, the state has had to host a significant number of internally displaced persons (IDPs) from crisis ridden states because of its relatively stable security situation. There are also limited, or no donor funded HIV interventions happening in Taraba leaving a gap in the continuum of care for HIV. The last intensive intervention for HIV was the Sure-P funds for scaling up the treatment of HIV/AIDS which ended in 2017. There is consequently a large number of undiagnosed people living with HIV (PLHIV) including children and pregnant women. In addition, a common maternal behaviour pattern in northern Nigeria is that women are likely to visit traditional birth attendants (TBA) than orthodox health facilities for antenatal and postnatal care which hinders HIV counselling and testing (HCT) access. Gaps therefore exist in early infant diagnosis (EID) at the facility level because women do not visit health facilities for ANC. Furthermore, EID results take a long time to generate because only few people access the services which requires many samples to run.

Numerous interventions have shown that existing community mechanisms/lay community members are able to provide some health services ordinarily provided in formal healthcare settings/facilities. This was amply demonstrated in the use of community members as health workers in the highly successful community directed treatment with Ivermectin (CDTI) intervention for the control of onchocerciasis¹. Following this, community-based health workers have been used successfully in the delivery of various health interventions including for malaria and diarrhoea diseases control using the integrated Community Case Management (iCCM)² as well as for maternal health services³. Successes recorded in these applications have prompted further implementation research into how existing community structures can be used to deliver numerous health services within communities. It is thus important to explore how existing lay members of community and structures already existing within communities can be used in the treatment and prevention of HIV.

In late 2018, Aidsfonds called for proposal for improving treatment and care for children living with HIV in Mozambique, Nigeria and/or South Africa. The aim of the call was to support successful civil society organizations to develop, implement and monitor an intervention model to find children

¹ Homeida, M., et al. "APOC's strategy of community-directed treatment with ivermectin (CDTI) and its potential for providing additional health services to the poorest populations." *Annals of Tropical Medicine & Parasitology* 96.sup1 (2002): S93-S104.

² Marsh, David R., et al. "Introduction to a special supplement: evidence for the implementation, effects, and impact of the integrated community case management strategy to treat childhood infection." *The American journal of tropical medicine and hygiene* 87.5_Suppl (2012): 2-5.

³ Gilmore, Brynne, and Eilish McAuliffe. "Effectiveness of community health workers delivering preventive interventions for maternal and child health in low-and middle-income countries: a systematic review." *BMC public health* 13.1 (2013): 847.

exposed to HIV who are missed by the conventional health system approach. The approach to be adopted should find more children living with HIV that do not know their status yet and as early as possible, with a strong focus on prevention of mother-to-child transmission (PMTCT) and the prevention of HIV in children. The approach is also to have both research and service delivery component. The specific objectives of the call are:

1. To seek novel approaches in communicating to women most at risk for HIV and their children, incentivizing them to know their HIV status and prevent mother-to-children transmission of HIV
2. To identify children living with HIV as early as possible and link them to care effectively and sustainably.
3. To develop and implement effective testing strategies to reach women and children most at risk for HIV (including but not limited to outreach services, home-based testing, community-intervention models, self-testing, routine testing in new settings, etc.). Strategies should include strong linkages to treatment, care and support, and can also include prevention interventions.
4. To advocate for community based high-quality treatment and care for children living with HIV
5. To stimulate partnerships between knowledge institutes, civil society organizations and governments, including innovate ways to integrate research into community outreach and services.



In response to the Aidsfonds call and following successful bidding, the Society for Family Health (SFH) a civil society organisation and the Institute of Public Health (IPH) of the Obafemi Awolowo University, Ile-Ife, Nigeria in a consortium will use a context-specific community participatory approach that guarantees the rapid identification and linkage of children less than 15 years of age living with HIV in eight LGAs in Taraba State to HIV testing services (HTS) and PMTCT services in state government-owned facilities. The strategy will leverage on the acceptance of community and informal health structures to bridge the gap between households and health facilities for HTS. In the approach, referred to here as **Enhancing Access of Children to HIV Services Using Existing Community Mechanisms (EACHEM)**, patent and proprietary medicine vendors (PPMVVs), traditional birth attendants (TBAs), and village health workers (VHWs) will be trained to identify,

refer, link and track beneficiary populations to public health facilities where provider initiated testing and counselling (PITC) would be delivered by trained and supervised health providers. SFH will also promote voluntary health seeking behaviours at community level as IPH tests the effectiveness of variations of health promotion models. This project is a three-year project from 2019 to 2022 and this is the report of the baseline assessment.



1.2 Theory of Change

The Lafiyan Yara theory of change is grounded on the premise that early detection for HIV has the propensity to reduce infant, child and maternal mortality. To facilitate early detection of HIV, we note that increased access to antenatal care (ANC) services by pregnant women and quality delivery services by health workers will enhance exposure to HCT and PMTCT services which consequently eliminates new infections in babies. Similarly, improved linkages between informal and formal health structures in Taraba state will amplify finding of new HIV positive cases, increase antiretroviral uptake, increase the number of virally suppressed women and children living positively invariably reducing mortality among target groups.

A second outcome anticipates better health seeking behaviours among direct and indirect beneficiaries when people are informed, motivated, equipped and have opportunities to voluntarily seek HCT services as a result of recognised benefits such as decreased mortality. While it is understood that the changes in behavioural practices rarely occur through linear mechanisms but are influenced by a range of other factors such as education, knowledge and wealth status, the programme anticipates that contact between caregiver, direct beneficiaries and health worker can lead to an increase in knowledge and motivation to adopt positive behaviours. When reinforced by influencers within the community or the home, beneficiaries and caregivers become increasingly motivated to adopt what they now see as socially acceptable HIV prevention and treatment practices.

Likewise, a third outcome presumes that improving the capacity of health providers to deliver better quality, confidential and non-stigmatising HIV prevention and treatment services will significantly motivate health facility attendance by beneficiaries and contribute to improving health outcomes.

The fourth outcome anticipates that learnings from the research arm of the project will better inform HIV programming in Taraba State and Nigeria where it concerns children less than 15 years of age and pregnant women.



1.3 Lafiyan Yara Project Goal and Objectives

1.3.1 Program Goal

The Lafiyan Yara project goal is to increase access and uptake of HIV services among children (0-14 years) in Taraba State by 2022 and to reduce HIV transmission from mother to child in Taraba State by 2022.

1.3.2 Program Objectives

Primary

- Improved case-finding of HIV positive children (0-14 years).
- Improved case-finding of HIV positive pregnant women.
- Improved uptake of PMTCT services by pregnant women.

Secondary

- Improved linkage of HIV positive children (0 – 14 years) to ART services in Taraba State.
- Improved Linkage of HIV exposed infants (HEI) to EID and HTC services in Taraba State.

1.3.3 Scope of research component of EACHEM program

The research component of the project aims to test the effectiveness of variations and combinations of different PMTCT and HCT promotion models, and to conduct a cost-effectiveness analysis of models tested.

1.3.4 Expected Final Outcomes

- Increased number of children less than 15 years of age and pregnant women receiving ARTs and achieving viral suppression in the project LGAs in Taraba State between 2019 and 2022.
- Fewer births of HIV positive children in project LGAs in Taraba State between 2019 and 2022.
- Greater demand for HCT, ART, PMTCT services by the general population, especially the project target population in Taraba State between 2019 and 2022.
- Evidence-informed policies that improve the HIV case-finding and treatment uptake for children under 15 years of age in Taraba State and Nigeria.



1.4 Baseline assesment objective

1.4.1 Broad objective

The broad objective of this baseline assessment is to assess exposure to community-based referral for and uptake of HTS services among women who completed term pregnancy in the past year and children under 15 years in selected intervention and control LGAs.

1.4.2 Specific objectives

The specific objectives are to

- Assess exposure to community-based referral for HTS services during pregnancy among women who completed term pregnancy in the last one year in intervention and control LGAs.
- Assess exposure to community-based referral for HTS services among children less than 15 in households that have women who completed term pregnancy in the last one year in intervention and control LGAs.

- Assess uptake of HTS during pregnancy among women who completed term pregnancy in the last one year in intervention and control LGAs.
- Assess uptake of PMTCT services among women who completed term pregnancy in the last one year in intervention and control LGAs.
- Assess the uptake of HTS among children below 15 years in households that have women who completed term pregnancy in the last one year in intervention and control LGAs.

1.4.3 Some operational definitions

- Patent and proprietary medicine vendors (PPMVs): These are persons registered with appropriate government agency to sell off-the-counter drugs and medications within their communities.
- Traditional birth attendants (TBAs): These are women living within communities, who have no formal health training but provide midwifery services to pregnant women.
- Village health workers (VHWs): These are individuals living within communities, usually having up to secondary level education but no formal health training, who volunteer, and are trained to provide specified community health services to members of their communities
- Household: A household is defined as any person or group of people living together under the same roof and sharing the same resources, utensils, food sources, and materials. Single persons living in different flats or rooms and not eating from the same pot constitute different households, even though they live in the same building, even though such households may just consist of 1 person.



2 Methodology

2.1 Overall study design

The research component of the Lafiyan Yara project was designed to use a mix of methods that will include a quasi-experimental study, cost analysis, and a qualitative process evaluation. The performance of the selected community structures (PPMV, TBA or VHW) in identifying, referring, linking and tracking beneficiary populations to public health facilities will be assessed using a quasi-experimental study design at a baseline, mid-line and end-line. Cost analysis is to be conducted to document the direct and indirect cost of achieving program objective at the end of each 12 months period of the intervention life cycle. A process evaluation will be conducted to assess fidelity of intervention and adherence to program logic; to assess effectiveness of interventions and document the evidence on its uptake, whether they have achieved their intended outcomes as well as assess the level of participation of target population. However, this report covers only the baseline assessment in which a cross-sectional descriptive study design was used.

2.2 Intervention location

This Lafiyan Yara is to be carried out in eight selected LGAs across the three senatorial districts in the state namely:

- Taraba North senatorial district: Jalingo Zing & Karim Lamido LGA.
- Taraba South senatorial district: Wukari.
- Taraba Central senatorial districts: Gassol, Bali, Gashaka & Sardauna LGAs.

However, the quasi-experimental study will only be conducted in four of the intervention LGAs (Bali, Gashaka, Jalingo and Zing LGAs) and another LGA outside of the eight intervention LGA selected as control (Lau LGA in the northern senatorial district). Hence, this baseline assessment was conducted in five LGAs.



2.3 Study population

The study population in this study were mothers who have delivered of a child in past 12 months in the study LGAs. Each study participant was asked questions about their exposure to and uptake of HTS services as well as about exposure and uptake of HTS services by children under 15 years living in their households.

2.3.1 Inclusion criteria

Women aged 15 – 50 years, who have delivered of a child in past 12 months preceding study, regardless of the current status of the child in the study LGAs.

2.3.2 Exclusion criteria

Eligible women who have not lived in the community for at least one year preceding each survey.

2.4 Sample size determination

To detect a programmatically significant increase in uptake of HTS by at least nine percentage points, sample size calculation for this study is based on 80% power, assuming a type I error of 5%, adjusting for potential clustering using a design effect of 1.2, and a non-response rate of 10% among respondents. The NARHS 2012 survey estimated that the proportion of women in reproductive age group who have ever done an HIV test in Northeast geopolitical zone was 17.6%, consequently a sample size of 430 households was determined for each study LGA making a total of 2150 households to be interviewed at each round of household survey. An eligible household was one that has a woman who completed term pregnancy in the past 12 months regardless of the current status of the child.

2.4.1 Sampling technique

A multi-stage sampling technique was employed. For each study LGA, the list of political wards and the estimated population was acquired and five of these were selected per LGA by simple random sampling. In each selected ward, ten streets/communities were selected by simple random sampling. Starting from a randomly selected building in each selected street/community, an eligible household was interviewed in every alternate building till the proportionate sample size assigned to that street/community was exhausted. In selected buildings with more than one eligible respondent, the research assistant selected who to interview by balloting.

2.4.2 Study instruments

The instrument for baseline household survey was adapted from various research instruments that have been used and validated in the country. The instrument has the following sections:

Section 0: Household Roster

Section 1: Background characteristics

Section 2: Pregnancy History

Section 3: Antenatal Care Services Utilisation

Section 4: Knowledge, opinions, and attitudes about HIV and AIDS

Section 5: Perceptions about HIV

Section 6: Exposure to Community based referral for HTS

Section 7: Uptake of HIV services

2.4.3 Pre-test

The instrument for the household survey was pre-tested at a location within Jalingo LGA that was not included in the data collection. The outcome of the pre-test was used to refine the tools and adapt to the realities of the target population without losing context.

2.4.4 Method of data collection

Data from the household was collected with the aid of computer assisted personal interview (CAPI) device.

2.4.5 Measurement of outcome variables

The outcomes of interest in this study include the following.

For mothers:

- Exposure to HTS
- Uptake of HTS
- Received PMTCT
- Linked to HIV care (i.e. drug (anti-retroviral therapy (ART) treatment)
- Child had EID

For children under 15 years:

- Exposure to HTS
- Uptake of HTS
- Linked to HIV Care (i.e. drug (ART) treatment)

2.4.6 Data Analysis

All variables on which data will be collected, especially the outcome measures and their frequencies, were presented with tables and charts.



2.5 Field administration/management

1. Recruitment of researchers: Research assistants were recruited from among eligible person who normally lived in Taraba state and are proficient with the local languages as well as English language.
2. Community Entry: Community entry and recruitment of participants for this research was facilitated through existing relationships and engagement of actors at the State, LGA and Community levels
3. Quality assurance: Training was conducted for researchers at a central location. The training covered all issues related to the formative research. The training ensured familiarity with the instruments and techniques to be used, conduct of the discussion and role-play. This was followed by the pre-test of the methodology and instruments. To ensure high quality data collection, quality control mechanisms were instituted at every stage of the exercise. Recruitment of the researchers followed a standard procedure to ensure the selection of highly qualified and experienced persons. The principal researcher monitored the evaluation throughout the process.

2.6 Ethical Clearance and informed consent

Ethical clearance for this study was obtained from the Institute of Public Health (IPH) Health Research Ethics Committee. Also, permission to conduct the study was obtained from the Taraba State Ministry of Health. Currently, there is no Health Research and Ethics Committee (HREC) resident with Taraba State. Written informed consent was obtained from all participants after the study has been properly explained to them. Participants who are unable to write or sign after consenting to participate in the study were requested to thumb-print on the consent form. Also, verbal consent was obtained from community leaders in every community where the survey was conducted. Confidentiality was assured by ensuring that there are no personal identifiers on any data instrument, and only key research personnel have access to the data.



3 Results

3.1 Background Characteristics of the Households

Two thousand one hundred and sixty-six households were visited in the five local government areas studied. The total number of persons identified by roaster in the households visited were 11,800 of which 51.8% (range 50.5% in Lau to 53% in Bali) were males and 55.6% (range 53% in Zing to 58.8% in Gashaka) were aged 0 – 14 years (Fig. 1a & 1b). Most of the households, 59.2% (range 51% in Zing to 67.7% in Bali), had from 2 to 5 household members, 37.1% (range 30.7% in Bali to 42.2 in Zing) had between 6 and 10 members and 70% of the households were in the low or middle income wealth index (Fig. 2 & 3). Over 50% of the household members (52.2% in Zing to 61.5% in Gashaka) were biological children of the heads of household (Annex: Table 1).

Fig. 1a: Sex composition of the households

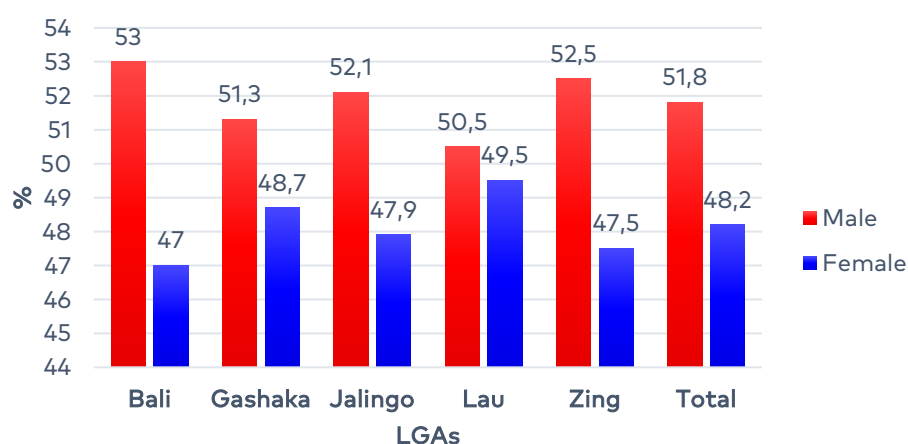
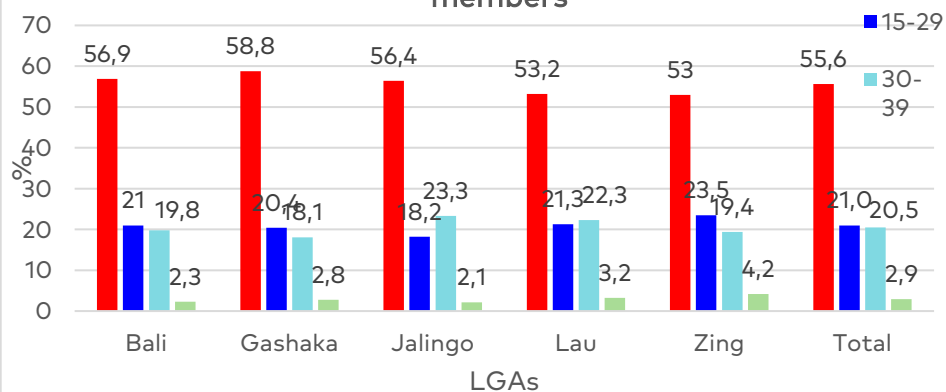
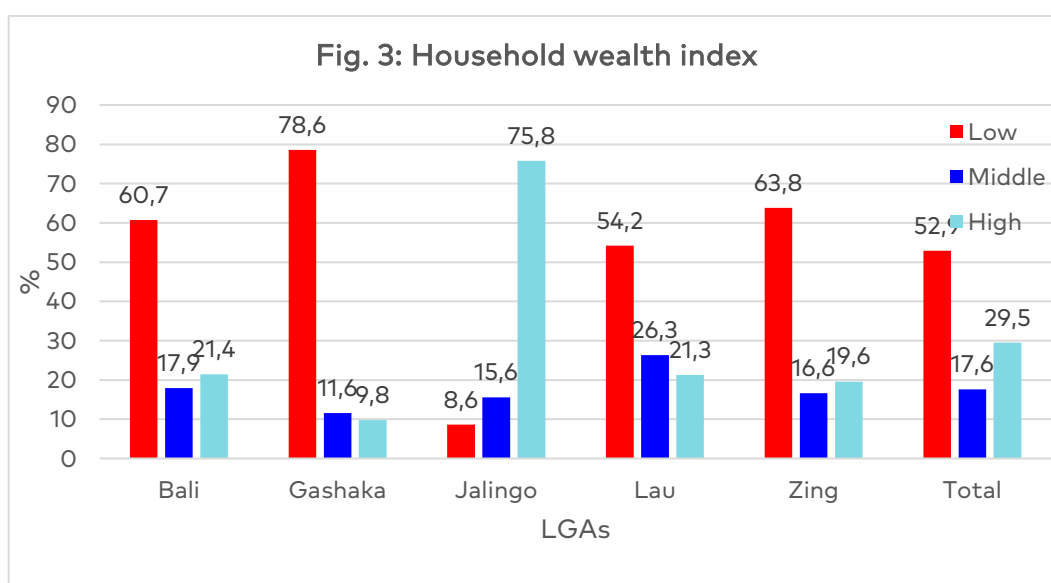
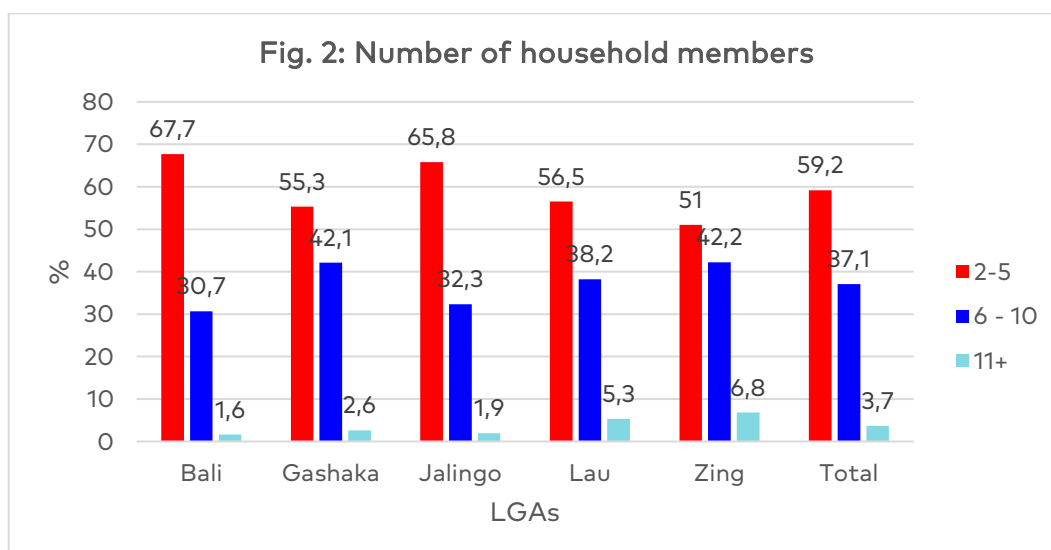


Fig. 1b: Age (years) composition of household members





3.2 Socio-demographic of Enrolled Women

Of the two thousand, one hundred and sixty-six women recruited for interview in the sampled households, 66.4% were below 29 years (range 60.5% in Jalingo to 74% in Gashaka) (Fig.4.). The women mostly worked as full-time house-wives (from 17.1% in Zing to 52.2% in Lau) while the other prominent occupations of the women were trading (from 16.5% in Lau to 27.6% in Zing); and farming or other agricultural work (from 0.0% in Jalingo to 39.4% in Zing) (see Annex Table 2). A sizeable percentage of the respondents had formal education, that is, primary, secondary or tertiary (from 49.5% in Bali to 72.5% in Zing) (Fig. 5). More than 9 out of ten of the women were married (from 89.5% in Lau to 96% in Bali) but 79 (3.6%) of all the women were never married (lowest in Jalingo at 1.6% and highest in Lau at 8.0%) (Annex 1; Table 2). A higher percentage of the respondents were Muslims in Bali (65.1%), Gashaka (61.9%) and Jalingo (72.1) but Christians in Lau (52.1%) and Zing (80.2%) (Fig. 6). Possession of household electronic and other items and sources of water for drinking and household chores are provided in the Annex (Tables 3 and 4).

Fig. 4. Age distribution of women recruited

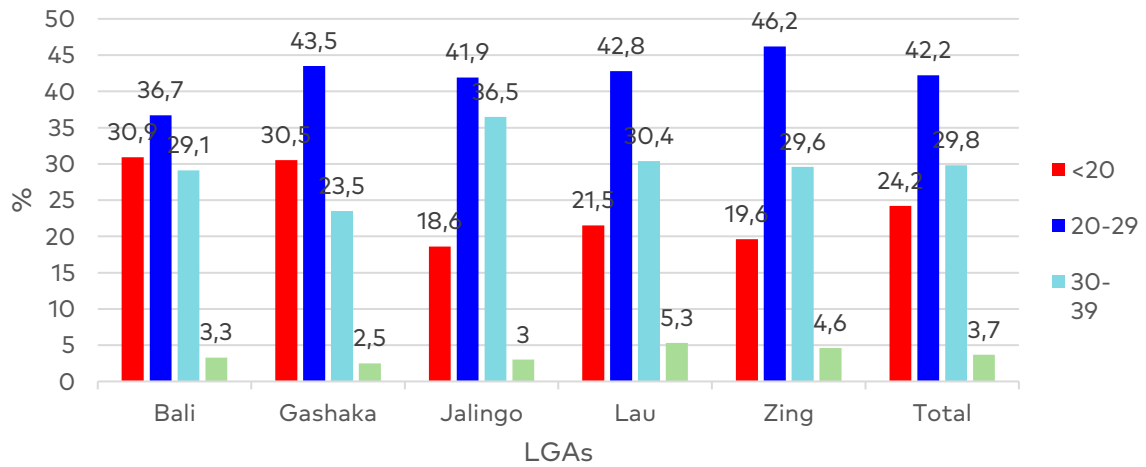


Fig. 5. Level of Education of the women

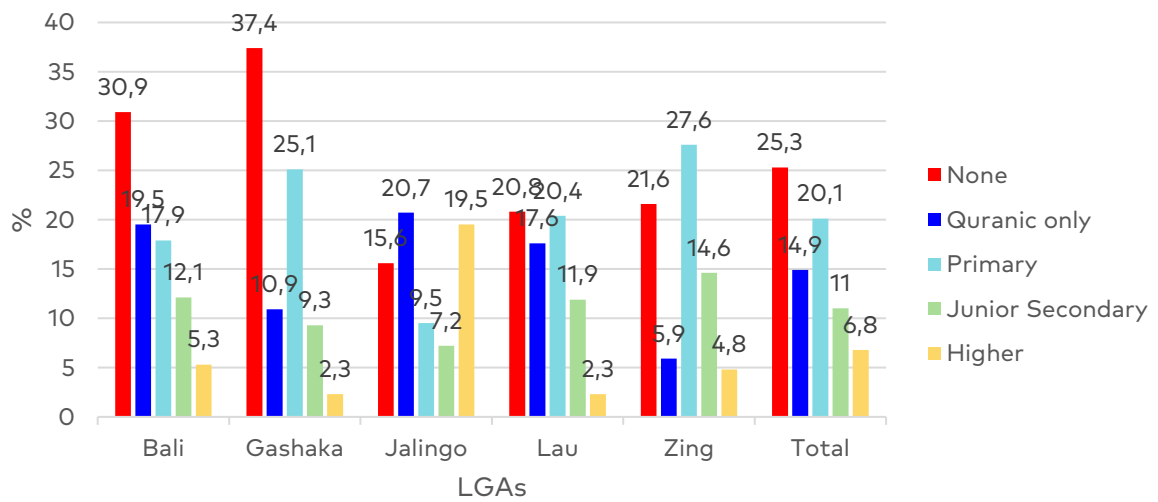
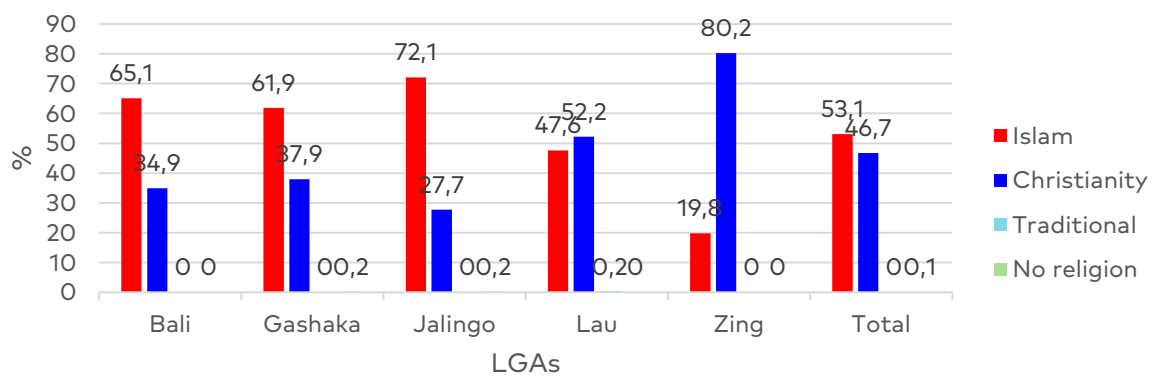


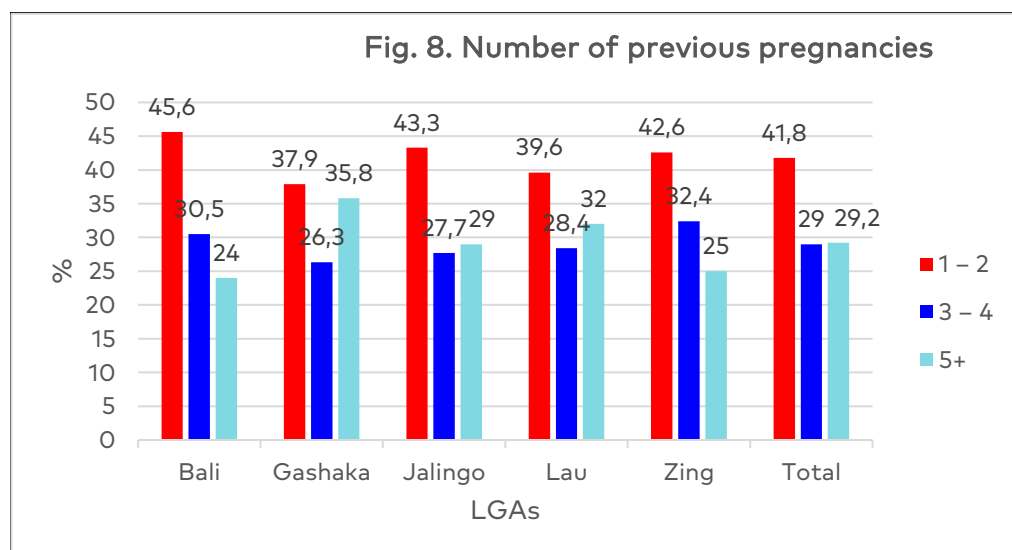
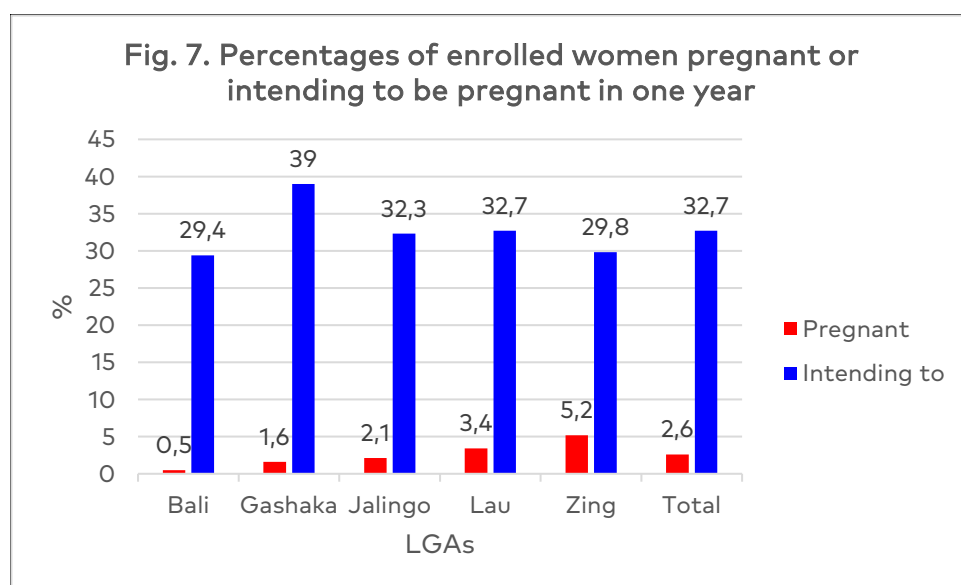
Fig. 6. Distribution of eligible women by religion

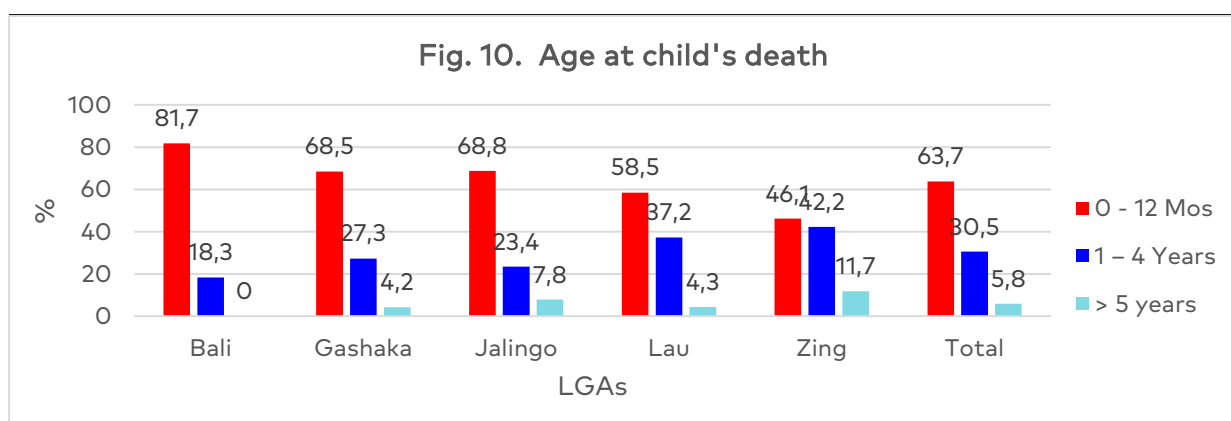
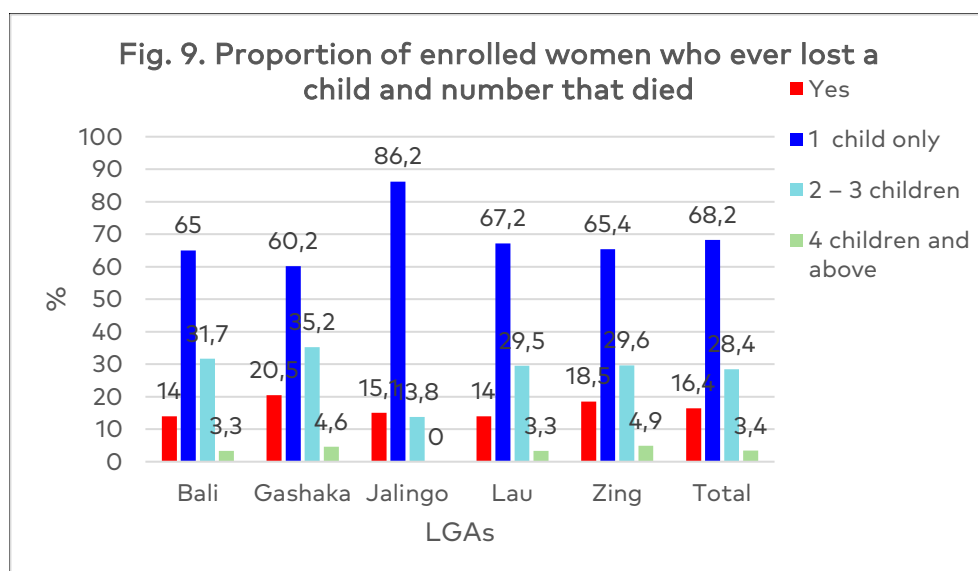


3.3 Reproductive History of Enrolled Women

In this study, only 56 (2.6%) were pregnant during the survey (range 0.5% in Bali to 5.2% in Zing) while up to 32.2% (29.4% in Bali to 39% in Gashaka) are intending to get pregnant within one year from the day of survey (Fig. 7). Seven of ten respondents have had from 1 – 4 pregnancies (68% in Lau to 76.1 in Bali) while the rest have had 5 or more children; similarly, 74.5% (66.5 in Gashaka and 77.8% in Zing) have had 1 – 4 deliveries (Fig. 8). One in six of the women had lost at least a child (least in Bali and Lua at 14% and highest in Gashaka at 20.5%, Fig. 9) while 68.2% of those who had lost children lost one child only (range 60.2% in Gashaka to 86.2% in Jalingo).

Most of the deaths (68%) occurred before the age of one year (range 46.1% in Zing to 81.7% in Bali); there were very few deaths (3.4%) at five years or above. Please see Annex (Table 5) for full details of the respondents' reproductive history.





3.4 Antenatal Care Utilisation and Choice of Place of Delivery

Antenatal care utilisation for the last pregnancy was high (84.8%) among the respondents (range 80.5% in Lau to 89.3% in Jalingo); a nurse/midwife was the most frequently seen health care provider for ANC while Community Health Extension Workers (11.3%) and traditional birth attendants (TBA) (0.4%) were less frequently seen. No respondent saw a patent medicine vendor for antenatal care consultation (Fig. 11). For those who utilised antenatal care, first visit was most frequently in the second trimester (58%, range 51.8% in Gashaka to 72.1% in Jalingo); notwithstanding, many (69.7%) still had for 4 or more visits before delivery (56.5% in Zing to 85.7% in Jalingo).

Almost half (46.3%) of the deliveries took place at home (27.9% in Jalingo to 67.9% in Zing). Incidentally, home remains a popular preferred place for future delivery (24.2%; range 14% in Gashaka and 44% in Zing) (Table 1).

Fig. 11. Respondents (%) who had antenatal care and provider seen for last pregnancy

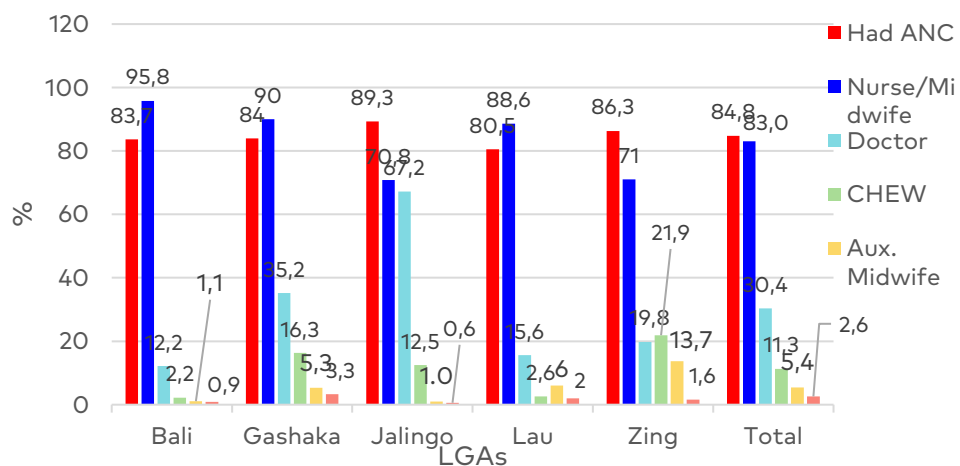


Fig. 12. Trimester of pregnancy when antenatal care commenced.

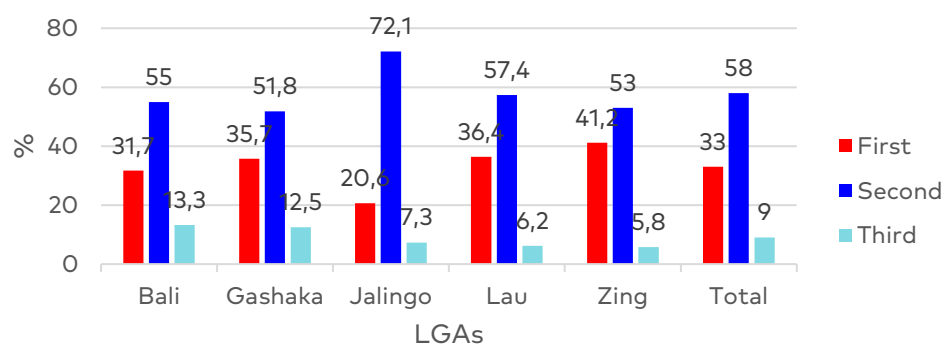
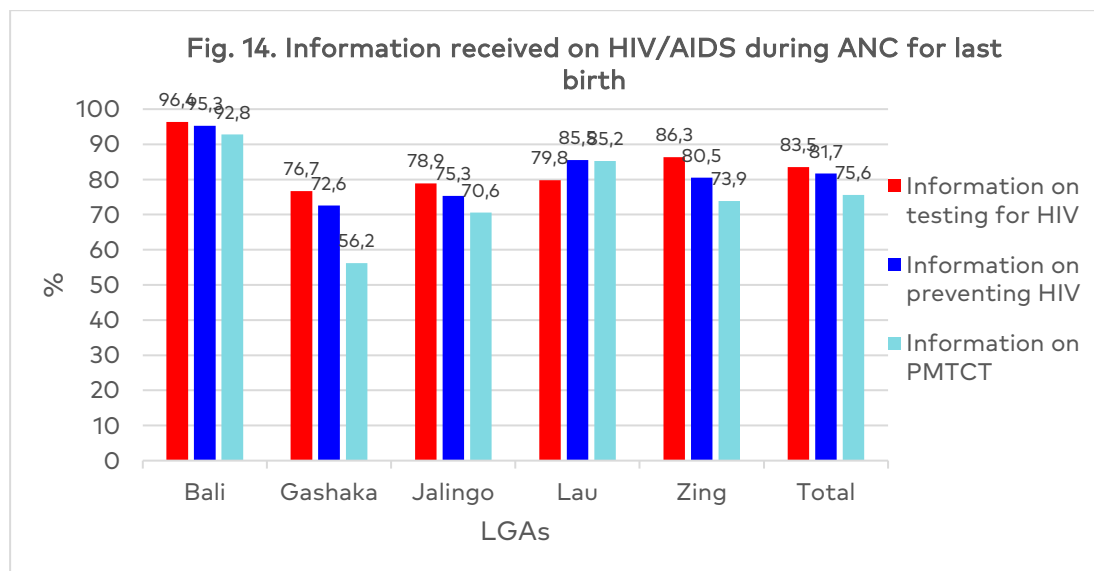
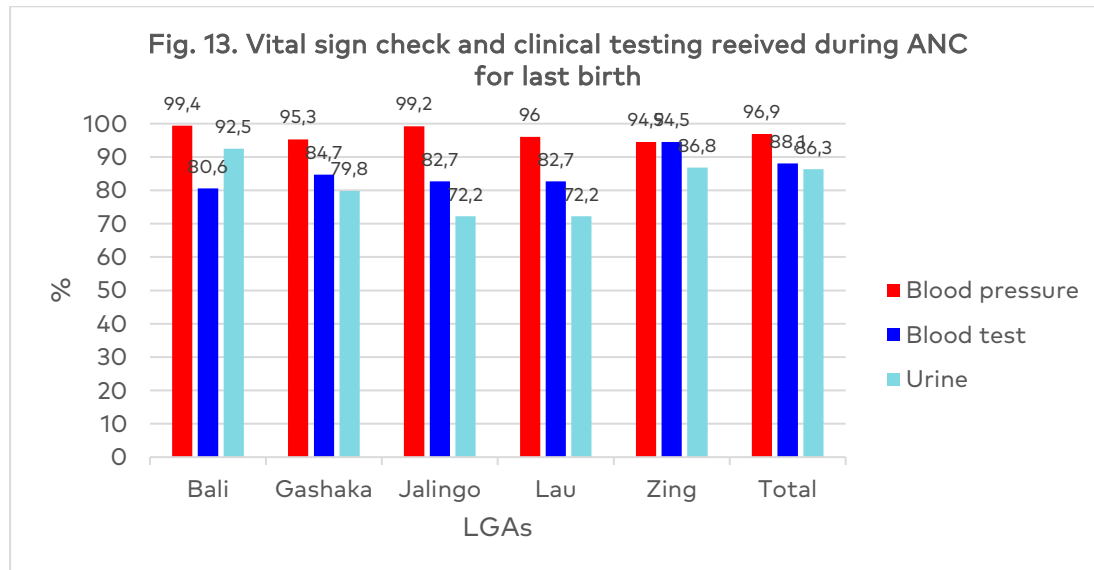


Table 1: Place of last delivery and preferred place for future deliveries

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
Place of birth of the last baby	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Home	193 (44.9)	152 (35.3)	120 (27.9)	240 (54.9)	298 (67.9)	1003 (46.3)
Primary Health Centre	57 (13.3)	111 (25.8)	65 (15.1)	83 (19.0)	22 (5.0)	338 (15.6)
General Hospital	142 (33.0)	74 (17.2)	55 (12.8)	14 (3.2)	43 (9.8)	328 (15.1)
Primary Health Clinic	10 (2.3)	26 (6.0)	65 (15.1)	36 (8.2)	40 (9.1)	177 (8.2)
Private hospital/Clinic	16 (3.7)	7 (1.6)	33 (7.7)	6 (1.4)	10 (2.3)	72 (3.3)
Federal Medical Centre	3 (0.7)	1 (0.2)	61 (14.2)	5 (1.1)	0 (0.0)	70 (3.2)
Traditional Birth Attendants	0 (0.0)	1 (0.2)	13 (3.0)	42 (9.6)	1 (0.2)	57 (2.6)
Health post	6 (1.4)	13 (3.0)	9 (2.1)	7 (1.6)	12 (2.7)	47 (2.2)
Mission House	1 (0.2)	32 (7.4)	0 (0.0)	0 (0.0)	8 (1.8)	41 (1.9)
Other public sector facility	1 (0.2)	8 (1.9)	4 (0.9)	2 (0.5)	0 (0.0)	15 (0.7)
Others (specify)	1 (0.2)	5 (1.2)	5 (1.2)	2 (0.5)	5 (1.1)	18 (0.8)
Preferred place of future delivery						
General Hospital	219 (50.9)	117 (27.2)	78 (18.1)	26 (5.9)	92 (21.0)	532 (24.6)
Home	71 (16.5)	60 (14.0)	78 (18.1)	123 (28.1)	193 (44.0)	525 (24.2)
Primary Health Centre	97 (22.6)	149 (34.7)	64 (14.9)	116 (26.5)	47 (10.7)	473 (21.8)
Primary Health Clinic	14 (3.3)	32 (7.4)	67 (15.6)	94 (21.5)	46 (10.5)	253 (11.7)
Federal Medical Centre	5 (1.2)	1 (0.2)	89 (20.7)	5 (1.1)	1 (0.2)	101 (4.7)
Traditional Birth Attendants	0 (0.0)	1 (0.2)	9 (2.1)	53 (12.1)	0 (0.0)	63 (2.9)
Private hospital/Clinic	9 (2.1)	5 (1.2)	30 (7.0)	4 (0.9)	10 (2.3)	58 (2.7)
Health post	13 (3.0)	15 (3.5)	7 (1.6)	10 (2.3)	8 (1.8)	53 (2.4)
Mission House	1 (0.2)	34 (7.9)	1 (0.2)	0 (0.0)	12 (2.7)	48 (2.2)
Others (specify)	1 (0.2)	6 (1.4)	3 (0.7)	5 (1.1)	30 (6.8)	45 (2.1)
Other public sector facility	0 (0.0)	10 (2.3)	4 (0.9)	1 (0.2)	0 (0.0)	15 (0.7)

3.5 Care functions and HIV information provided during ANC for last pregnancy

As shown in Fig. 13, majority of respondents who received ante-natal care during their last pregnancy had their blood pressure measured at least once (96.9%), had a blood test done (88.1%) and had a urine test done (86.3%) at the ANC care service. Similarly, as shown in Fig. 14, majority of respondent who received ante-natal care during their last pregnancy reported that they received information on testing for HIV (83.5%), information on preventing HIV (81.7%), and information on PMTCT (75.6%) at the ANC service.



3.6 Knowledge, Opinions and Attitudes about HIV and AIDS

Almost all the respondents were aware of HIV/AIDS (94.5%, ranging from 90% in Jalingo to 98.8% in Bali); the most common sources of information on HIV/AIDS was the health care

provider in health facility (67.6%; 56.5% in Gashaka to 78% in Zing), family members and relations (42.1% in Bali and 68.6% in Gashaka) and, friends and peers, 28.9% in Gashaka and 71.2% in Lau. In addition, the electronic media (radio and television) was a prominent source of information in Jalingo (46.8%) (Table 2). Concerning knowledge/opinion about the availability of a cure for the HIV virus or AIDS, 1331 (65%; range 45.3% in Zing to 74.0% in Lau) were certain that there is no cure while the rest either did not know or felt there is a cure. Almost half (49.1%) of the respondents (34.9% in Gashaka to 59.3% in Lau) knew someone who is infected or who has AIDS while 50.2% (41.5% in Gashaka to 58.8% in Zing) knew someone who had died of AIDS (Fig. 15). Respondents' knowledge about the route of transmission of AIDS is shown in Figure 16 while their knowledge about myths or misconception on transmission of HIV are shown in Fig. 17. Respondents were generally knowledgeable about the main routes of HIV transmission except perhaps mother-to-child route. Myths and misconception were also prevalent.

Table 3 shows respondents' knowledge about ways to avoid acquiring HIV. Similar to observation with routes of transmission, respondents were knowledgeable about the important ways to avoid getting infected but again, myths such as "going for regular check-up", praying to God, use of antibiotics were commonly expressed.

Table 2. Awareness of and source of information about HIV and AIDS

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Ever heard of AIDS or HIV						
Yes	425 (98.8)	398 (92.6)	387 (90.0)	423 (96.8)	413 (94.1)	2,046 (94.5)
Source of information about HIV/AIDS						
Health workers in the health facility	319 (75.1)	225 (56.5)	255 (65.9)	261 (61.7)	322 (78.0)	1382 (67.6)
Family members/Relatives	179 (42.1)	273 (68.6)	174 (45.0)	244 (57.7)	209 (50.6)	1079 (52.7)
Friends/Peers	190 (44.7)	115 (28.9)	201 (51.9)	301 (71.2)	214 (51.8)	1021 (49.9)
Community Health Worker	104 (24.5)	50 (12.7)	30 (7.8)	111 (26.2)	25 (6.1)	320 (15.6)
Electronic media (Television/Radio)	8 (1.9)	9 (2.3)	181 (46.8)	14 (3.3)	75 (18.2)	287 (14.0)
NGOs/CBOs	31 (7.3)	9 (2.3)	10 (2.6)	5 (1.2)	1 (0.2)	56 (2.7)
Others	3 (0.7)	7 (1.8)	3 (0.8)	4 (1.0)	37 (9.0)	54 (2.6)
Print media (newspapers and magazines)	9 (2.1)	5 (1.3)	22 (5.7)	2 (0.5)	10 (2.4)	48 (2.4)
Social media (WhatsApp, Facebook, Twitter, Websites, etc)	5 (1.2)	4 (1.0)	26 (6.7)	2 (0.5)	3 (0.7)	40 (2.0)
Seminars/Workshops	18 (4.2)	1 (0.3)	9 (2.3)	1 (0.2)	4 (1.0)	33 (1.6)

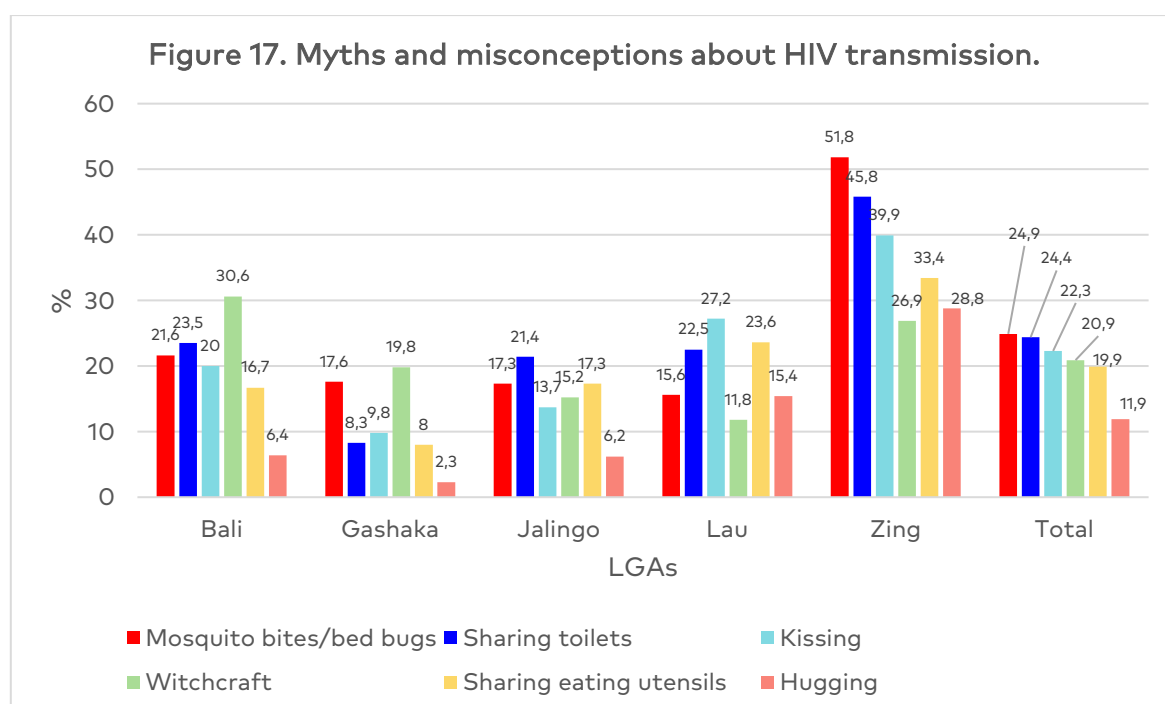
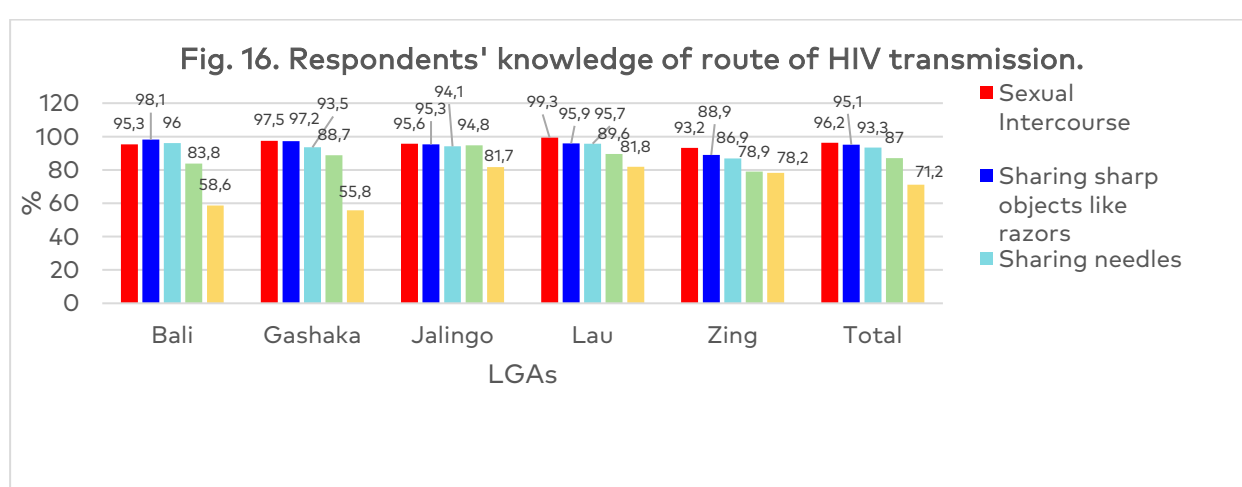
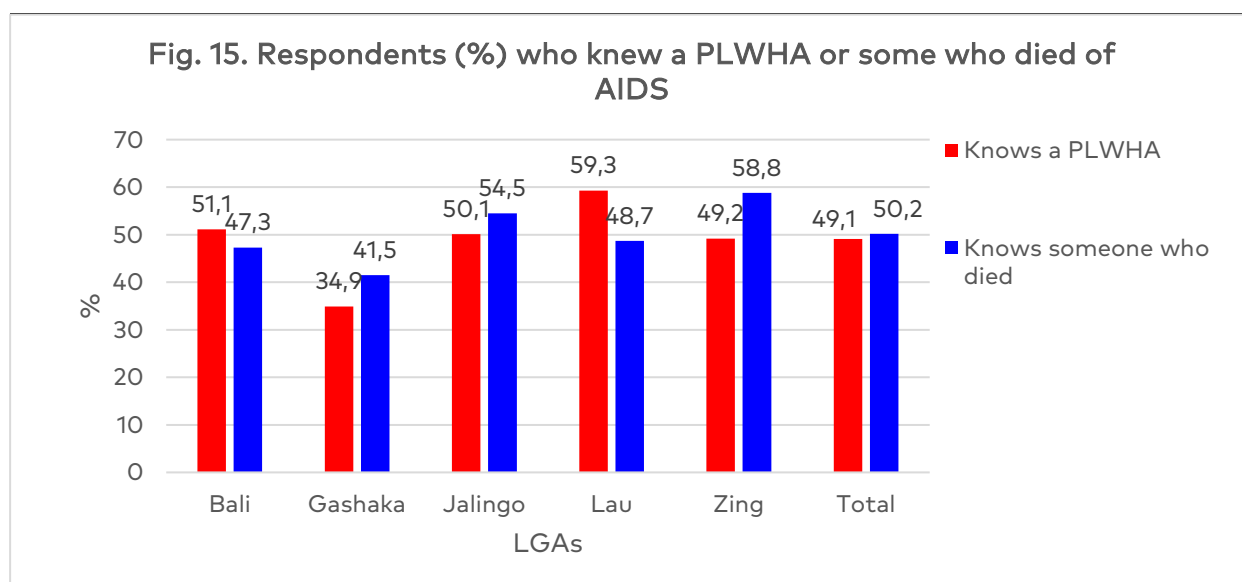


Table 3. Respondents' knowledge on ways to avoid getting HIV

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	425 (%)	398 (%)	387 (%)	423 (%)	413 (%)	
Avoid sharing of sharp objects like needles, razors	417 (98.1)	355 (89.2)	376 (97.2)	409 (96.9)	381 (92.3)	1938 (94.7)
Staying with one faithful uninfected partner	412 (96.9)	358 (89.9)	369 (95.3)	412 (97.4)	365 (88.4)	1916 (93.6)
Avoiding sex with commercial sex workers	398 (93.6)	314 (78.9)	336 (86.8)	405 (95.7)	341 (82.6)	1794 (87.7)
Avoiding sex with people who have many sexual partners	365 (85.9)	319 (80.2)	353 (91.2)	413 (97.6)	329 (79.7)	1779 (86.9)
Abstaining from sex	377 (88.7)	271 (68.1)	297 (76.7)	397 (93.9)	357 (86.4)	1699 (83.0)
Reducing number of sexual partners	336 (79.1)	300 (75.4)	332 (85.8)	407 (96.2)	319 (77.2)	1694 (82.8)
Using condoms every time	405 (95.3)	323 (81.2)	334 (86.3)	329 (77.8)	291 (70.5)	1682 (82.2)
Going for check-ups	341 (80.2)	248 (62.3)	230 (59.4)	274 (64.8)	394 (71.2)	1387 (67.8)
Praying to God	254 (57.7)	255 (64.1)	261 (67.4)	271 (64.1)	308 (74.6)	1340 (65.5)
Delaying the onset of sexual intercourse	268 (63.1)	176 (44.2)	209 (54.0)	356 (84.2)	311 (75.3)	1320 (64.5)
Using antibiotics	135 (31.8)	144 (36.2)	126 (32.6)	135 (31.9)	151 (36.6)	691 (33.8)
Seek protection from a traditional healer	64 (15.1)	41 (10.3)	80 (20.7)	69 (16.3)	74 (17.9)	328 (16.0)
Nothing	9 (2.1)	13 (3.3)	50 (12.9)	27 (6.4)	28 (6.8)	127 (6.2)

Respondents' knowledge of risk of HIV transmission including self-perceived risk is shown in table 4. Almost three-quarters (73.7%) of the respondents knew that chances of HIV transmission during sexual intercourse or from mother to child decreases when an infected person is on treatment (58.9% in Jalingo to 83.8% in Lau). Furthermore, 57.5% (range 54.1% in Lau to 63.9% in Zing) perceived their self-risk to be low while 4.1% (0.7% in Bali and 9.6% in Jalingo) perceived their risk as high. The more commonly given reasons for low risk perception include having only one partner (55.4%, range 33.1% in Jalingo to 73.5% in Zing); trust of one partner (40.3%, range 24.7% in Bali to 56.6% in Gashaka) and protection from God/not one's destiny (24.4%, range 9.5% in Bali to 35.2% in Jalingo). Other respondents felt they had risk of acquiring the HIV because their spouse/partner had other partners (63.9%, n= 53; range 50.0%, n=4 in Lau to 77.8%, n=7 in Zing); or because they had had blood transfusion (63.9%, range 50.0%, n=4 in Lau to 77.8% n=9 in Zing). Relatively more respondents had had blood transfusion in Jalingo (24) and Gashaka (18).

3.7 Knowledge Concerning Mother-to-Child Transmission

Knowledge of HIV transmission during pregnancy, delivery and breastfeeding is shown in Fig. 18. Respondents were most knowledgeable on HIV transmission during breastfeeding (88.9%, range 80.2% in Gashaka to 93.9% in Bali) followed by during delivery (75%, range 55.5% in Gashaka to 88.5% in Zing) and during pregnancy (60% range 49.6 in Bali to 81.5% in Lau. Furthermore, 67.2% of the respondents (range 54% in Gashaka to 82.5% in Lau) knew that there were drugs to reduce

the risk of HIV transmission from mother to child while 75.9% (66.8% in Gashaka and 78.8% in Bali) knew of drugs to prolong the life of persons infected with HIV (Fig. 19).

Table 4. Respondents' knowledge of risk of HIV transmission including self-perception.

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
What is the risk of transmission of HIV from mother-to-child or during sexual intercourse when a HIV positive person is on treatment?						
Increase	5 (1.5)	5 (1.9)	26 (9.5)	25 (6.8)	19 (6.2)	80 (5.2)
Decrease	224 (67.1)	194 (72.9)	162 (58.9)	309 (83.7)	255 (82.8)	1144 (73.7)
Does not change	8 (2.4)	38 (14.3)	39 (14.2)	25 (6.8)	2 (0.6)	112 (7.2)
Don't know	97 (29.0)	29 (10.9)	48 (17.4)	10 (2.7)	32 (10.4)	216 (13.9)
Self-perception of getting AIDS						
Low	235 (55.3)	238 (59.8)	211 (54.5)	229 (54.1)	264 (63.9)	1177 (57.5)
No risk at all	61 (14.4)	71 (17.8)	79 (20.4)	186 (44.0)	114 (27.6)	511 (25.0)
No response	125 (29.4)	58 (14.6)	60 (15.5)	1 (0.2)	25 (6.1)	269 (13.1)
High	3 (0.7)	30 (7.5)	37 (9.6)	4 (1.0)	9 (2.2)	83 (4.1)
Already have HIV/AIDS	1 (0.2)	1 (0.3)	0 (0.0)	3 (0.7)	1 (0.2)	6 (0.3)
Why do you think you have a high chance of getting HIV/AIDS?						
My Spouse/partners has other partners	2 (66.7)	18 (60.0)	24 (64.9)	2 (50.0)	7 (77.8)	53 (63.9)
Had blood transfusions	2 (66.7)	18 (60.0)	24 (64.9)	2 (50.0)	7 (77.8)	53 (63.9)
Do not use condoms	0 (0.0)	23 (76.7)	19 (51.4)	3 (75.0)	2 (22.2)	47 (56.6)
Share sharp objects	1 (33.3)	3 (10.0)	6 (16.2)	2 (50.0)	4 (44.4)	16 (19.3)
I have more than one sex partner	1 (33.3)	6 (20.0)	2 (5.4)	3 (75.0)	0 (0.0)	12 (14.5)
Others	0 (0.0)	0 (0.0)	3 (8.1)	0 (0.0)	5 (55.6)	8 (9.6)
Have had injections	0 (0.0)	2 (6.7)	1 (2.7)	1 (25.0)	1 (11.1)	5 (6.0)
Sex with sex workers	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Why do you think you have a low chance or no chance at all of getting HIV/AIDS?						
I have only one sex partner	184 (62.2)	155 (50.2)	96 (33.10)	222 (53.5)	278 (73.5)	935 (55.4)
I trust my partner	73 (24.7)	175 (56.6)	133 (45.9)	200 (48.2)	99 (26.2)	680 (40.3)

God will protect me/It is not my destiny	28 (9.5)	82 (26.5)	102 (35.2)	103 (24.8)	96 (25.4)	411 (24.4)
I use condoms	79 (26.7)	114 (36.9)	8 (2.8)	27 (6.5)	6 (1.6)	234 (13.9)
I ensure injection with sterile needle	57 (19.3)	29 (9.4)	74 (25.5)	28 (6.8)	15 (4.0)	203 (12.0)
Spouse/partners has no other partner	29 (9.8)	14 (4.5)	41 (14.1)	65 (15.7)	48 (12.7)	197 (11.7)
I abstain from sex	24 (8.1)	100 (32.4)	8 (2.8)	18 (4.3)	31 (8.2)	181 (10.7)
I ensure safe blood transfusion	57 (19.3)	16 (5.2)	54 (18.6)	47 (11.3)	4 (1.1)	178 (10.6)
I have a limited number of sex partners	8 (2.7)	33 (10.7)	5 (1.7)	28 (6.8)	13 (3.4)	87 (5.2)
I avoid sex with sex workers	27 (9.1)	2 (0.7)	11 (3.8)	14 (3.4)	3 (0.8)	57 (3.4)
I seek protection from a traditional healer	5 (1.7)	1 (0.3)	4 (1.4)	15 (3.6)	2 (0.5)	27 (1.6)
Others	0 (0.0)	0 (0.0)	2 (0.7)	6 (1.5)	12 (3.2)	20 (1.2)

Fig. 18. Respondents' knowledge of mother-to-child transmission of HIV virus

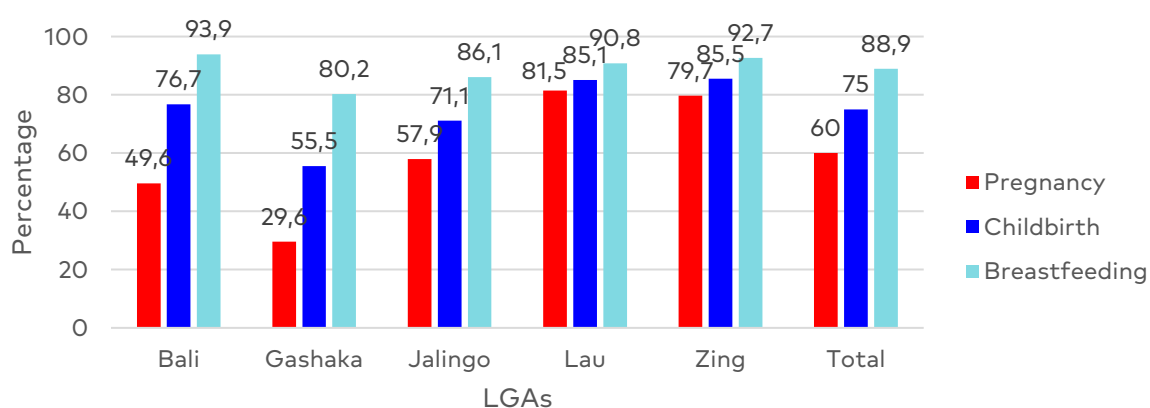
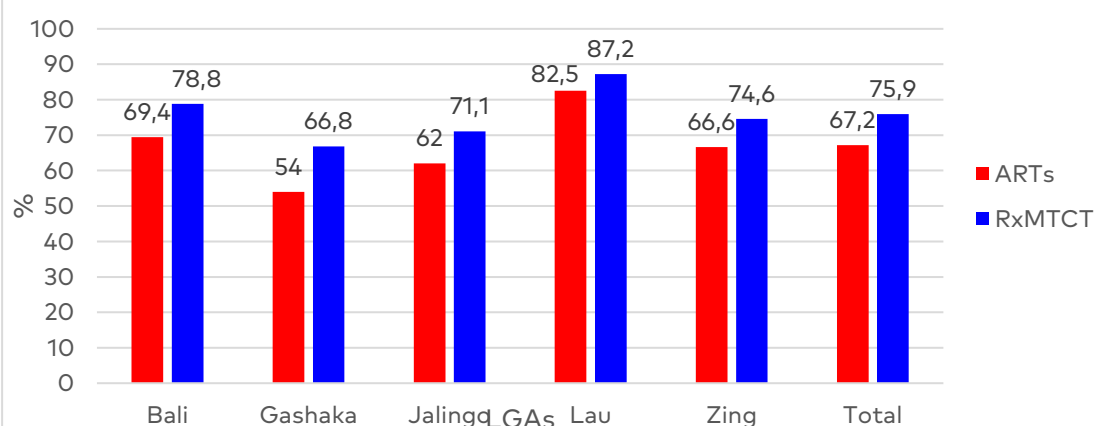


Fig. 19. Respondents' knowledge about drugs to reduce HIV transmission and prolong lives of persons living with HIV.



3.8 Knowledge of HIV testing Sites and Exposure to Community-Based Referral for HTS

Table 5 shows respondents' knowledge about HIV testing sites. More than nine of ten respondents knew a HIV testing site. The more frequently identified sites in all the LGAs were General Hospital, Primary Health Centre and Primary Health Clinics. For Jalingo, the Federal Medical Centre was the most frequently mentioned site. Traditional birth attendants were mentioned by few respondents (16) while none of the respondents mentioned the PPMVs.

Three hundred and fifty-eight (17.5%) of the respondents were counselled or referred by someone in the community for HIV testing (community-based referral) during the last pregnancy. Although most of the respondents were referred by a facility health worker (34.1%), few were referred by PPMVs – 15 (4.2%) and TBAs – 14 (3.9%). However, 27.7% were told to go for test by their husbands while 11.5% were told to go by another relative. Moreover, 331 (92.5%) of those referred went for the test. The reasons provided by those who failed to go for the test include "not necessary" 13 (48.2%), "cost" 10 (37.0%) and "distance/transportation challenge" 5 (18.5%). For the 6,205 children 0 – 14 years identified during the survey, respondents were counselled or referred to take only 255 (4.1%) for HIV testing. Of those 12 respondents who reported their HIV status as positive, only 3 reported that they were counselled or referred by anyone in their community to take any of their child/ward for HIV testing. The counselling/referral was provided by a facility-based health worker (27.1%), a village health worker (7.1%), religious leader (6.7%), PPMV (6.2%) and TBA (0.4%). The majority of those respondents or children (56.5% and 66.6% respectively) who were referred received assistance to access the test (Tables 6 & 7). However, 36.1% were referred for test by the father of the child while 10.6% were referred told by other relatives including the grandmother, grandfather and aunties.

Table 5. Knowledge of HIV testing sites

Do you know a place where people can go to get tested for HIV?						
Yes	410 (96.5)	349 (87.7)	333 (86.1)	389 (92.0)	383 (92.7)	1864 (91.1)
No	15 (3.5)	49 (12.3)	54 (14.0)	34 (8.0)	30 (7.3)	182 (8.9)
Place to get tested for HIV						
General Hospital	293 (71.5)	210 (60.2)	219 (65.8)	111 (28.5)	300 (78.3)	1133 (60.8)
Primary Health Centre	207 (50.5)	186 (53.3)	190 (57.1)	229 (58.9)	119 (31.1)	931 (49.9)
Primary Health Clinic	87 (21.2)	56 (16.0)	148 (44.4)	168 (43.2)	106 (27.7)	565 (30.3)
Federal Medical Centre	20 (4.9)	6 (1.7)	256 (76.9)	73 (18.8)	33 (8.6)	388 (20.8)
Private hospital/Clinic	113 (27.6)	10 (2.9)	74 (22.2)	52 (13.4)	30 (7.8)	279 (15.0)
Health post	64 (15.6)	19 (5.4)	23 (6.9)	36 (9.3)	32 (8.4)	174 (9.3)
Mission House	30 (7.3)	50 (14.3)	2 (0.6)	10 (2.6)	24 (6.3)	116 (6.2)
Field Worker	45 (11.0)	0 (0.0)	2 (0.6)	5 (1.3)	9 (2.3)	61 (3.3)
Outreach /Mobile Clinic	27 (6.6)	0 (0.0)	13 (3.9)	7 (1.8)	6 (1.6)	53 (2.8)
Other public sector facility	11 (2.7)	27 (7.7)	7 (2.1)	3 (0.8)	0 (0.0)	48 (2.6)

Non-Governmental Organisation	11 (2.7)	2 (0.6)	12 (3.6)	10 (2.6)	1 (0.3)	36 (1.9)
Family Planning Clinic	16 (3.9)	0 (0.0)	8 (2.4)	5 (1.3)	3 (0.8)	32 (1.7)
Traditional Birth Attendants	7 (1.7)	0 (0.0)	3 (0.9)	5 (1.3)	1 (0.3)	16 (0.9)
Standalone VCT Centre	1 (0.2)	2 (0.6)	0 (0.0)	3 (0.8)	1 (0.3)	7 (0.4)
Others	0 (0.0)	2 (0.6)	1 (0.3)	0 (0.0)	3 (0.8)	6 (0.3)



Table 6. Exposure to Community based referral for HTS during last pregnancy

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
In your last pregnancy, did anyone in your community counsel/refer you to a health facility do HIV screening?						
Yes	72 (16.9)	69 (17.3)	36 (9.3)	74 (17.5)	107 (25.9)	358 (17.5)
No	353 (83.1)	329 (82.7)	351 (90.7)	349 (82.5)	306 (74.1)	1688 (82.5)
Who counselled/referred you?						
Facility Based Health Worker	29 (40.3)	14 (20.3)	15 (41.7)	37 (50)	30 (28)	125 (34.9)

Husband	15 (20.8)	25 (36.2)	7 (19.4)	11 (14.9)	41 (38.3)	99 (27.7)
Relative	8 (11.1)	10 (14.5)	2 (5.6)	0 (0)	21 (19.6)	41 (11.5)
Village/Voluntary Health Worker	10 (13.9)	10 (14.5)	1 (2.8)	9 (12.2)	1 (0.9)	31 (8.7)
Religious Leader	3 (4.2)	4 (5.8)	3 (8.3)	4 (5.4)	4 (3.7)	18 (5)
Patent Medicine Vendors/Chemist	4 (5.6)	0 (0)	4 (11.1)	7 (9.5)	0 (0)	15 (4.2)
Traditional Birth Attendant	0 (0)	4 (5.8)	2 (5.6)	6 (8.1)	2 (1.9)	14 (3.9)
Others	3 (4.2)	2 (2.9)	2 (5.6)	0 (0)	8 (7.5)	15 (4.2)
Place referred to for HIV test						
General Hospital	48 (66.7)	20 (29.0)	8 (22.2)	6 (8.1)	53 (49.5)	135 (37.7)
Primary Health Centre	12 (16.7)	26 (37.7)	10 (27.8)	32 (43.2)	22 (20.6)	102 (28.5)
Primary Health Clinic	3 (4.2)	4 (5.8)	8 (22.2)	26 (35.1)	18 (16.8)	59 (16.5)
Health post	2 (2.8)	7 (10.1)	0 (0.0)	2 (2.7)	5 (4.7)	16 (4.5)
Federal Medical Centre	2 (2.8)	0 (0.0)	7 (19.4)	6 (8.1)	0 (0.0)	15 (4.2)
Mission House	0 (0.0)	8 (11.6)	0 (0.0)	1 (1.4)	2 (1.9)	11 (3.1)
Private hospital/Clinic	3 (4.2)	0 (0.0)	0 (0.0)	0 (0.0)	7 (6.5)	10 (2.8)
Others	2 (2.8)	1 (1.5)	1 (2.8)	0 (0.0)	0 (0.0)	4 (1.1)
Non-Governmental Organisation	0 (0.0)	2 (2.9)	1 (2.8)	0 (0.0)	0 (0.0)	3 (3.1)
Other public sector facility	0 (0.0)	1 (1.5)	1 (2.8)	0 (0.0)	0 (0.0)	2 (0.6)
Family Planning Clinic	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	0 (0.0)	1 (0.3)
Did you go for the test?						
Yes	69 (95.8)	63 (91.3)	32 (88.9)	66 (89.2)	101 (94.4)	331 (92.5)
No	3 (4.2)	6 (8.7)	4 (11.1)	8 (10.8)	6 (5.6)	27 (7.5)
Why didn't you go for the test?						
Not necessary	1 (33.3)	4 (66.7)	3 (75.0)	3 (37.5)	2 (33.3)	13 (48.2)
Cost too much	0 (0.0)	2 (33.3)	2 (50.0)	3 (37.5)	3 (50.0)	10 (37.0)
Too far/no transportation	0 (0.0)	2 (33.3)	0 (0.0)	2 (25.0)	1 (16.7)	5 (18.5)
Husband /family did not allow	1 (33.3)	0 (0.0)	0 (0.0)	2 (25.0)	0 (0.0)	3 (11.1)
Others	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)	1 (16.7)	2 (7.4)
My religion does not allow it	0 (0.0)	0 (0.0)	0 (0.0)	1 (12.5)	0 (0.0)	1 (3.7)
Afraid of possible outcome of test	0 (0.0)	0 (0.0)	0 (0.0)	1 (12.5)	0 (0.0)	1 (3.7)
Did the person provide any form of assistance for you to go for the test?						
Yes	38 (55.1)	47 (74.6)	14 (43.8)	25 (37.9)	62 (61.4)	186 (56.2)
No	31 (44.9)	16 (25.4)	18 (56.3)	41 (62.1)	39 (38.6)	145 (43.8)
What form of assistance did the person provide for you?						
Provided/Paid for transportation	27 (71.1)	42 (89.4)	6 (42.9)	3 (12.0)	47 (75.8)	125 (67.2)

Accompanied you to the place	10 (26.3)	40 (85.1)	9 (64.3)	21 (84.0)	18 (29.0)	98 (52.7)
Others	5 (13.2)	1 (2.1)	0 (0.0)	1 (4.0)	3 (4.8)	10 (5.4)

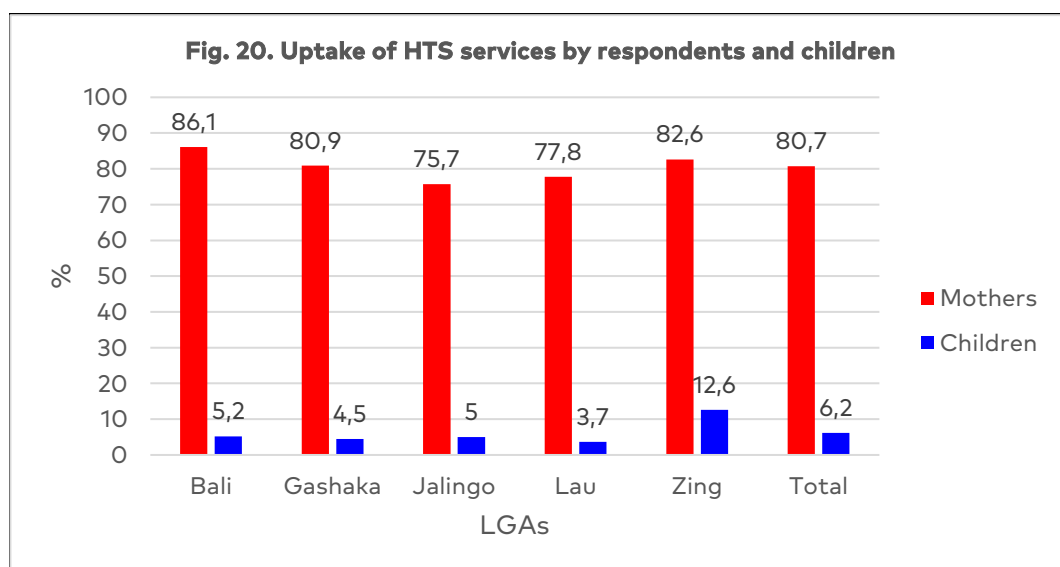
Table 7 Exposure of children 0 – 14 years to Community based referral for HTS

	Local Government Areas					Total
	Bali 1173 (%)	Gashaka 1340 (%)	Jalingo 1143 (%)	Lau 1263 (%)	Zing 1286 (%)	
Counselled/referred to take a child aged 0 – 14 years to a health facility for HIV screening in the last one year?						
Yes	39 (3.3)	36 (2.7)	30 (2.6)	21 (1.7)	129 (10.0)	255 (4.1)
No	1134 (96.7)	1304 (97.3)	1113 (97.4)	1242 (98.3)	1157 (90.0)	5950 (95.9)
Who counselled you about take for HIV screening?						
Patent Medicine Vendors/Chemist	7 (17.9)	0 (0)	6 (20)	3 (14.3)	0 (0)	16 (6.3)
Traditional Birth Attendant	0 (0)	0 (0)	0 (0)	1 (4.8)	0 (0)	1 (0.4)
Village/Voluntary Health Worker	3 (7.7)	12 (33.3)	0 (0)	1 (4.8)	2 (1.6)	18 (7.1)
Facility Based Health Worker	7 (17.9)	5 (13.9)	2 (6.7)	13 (61.9)	43 (33.3)	70 (27.5)
Religious Leader	0 (0)	9 (25)	1 (3.3)	3 (14.3)	4 (3.1)	17 (6.7)
Relative	1 (2.6)	5 (13.9)	5 (16.7)	0 (0)	16 (12.4)	27 (10.6)
Father of child	21 (53.8)	5 (13.9)	7 (23.3)	0 (0)	59 (45.7)	92 (36.1)
Others (specify)	0 (0)	0 (0)	9 (30)	0 (0)	5 (3.9)	14 (5.5)
Where was the child referred ?						
General Hospital	33 (84.6)	7 (19.4)	8 (26.7)	1 (4.8)	51 (39.5)	100 (39.2)
Primary Health Centre	5 (12.8)	10 (27.8)	8 (26.7)	10 (47.6)	19 (14.7)	52 (20.3)
Primary Health Clinic	0 (0.0)	2 (5.6)	2 (6.7)	3 (14.2)	24 (19.6)	31 (12.2)
Health post	0 (0.0)	0 (0.0)	4 (13.3)	1 (4.8)	10 (7.8)	15 (5.9)
Private hospital/Clinic	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	13 (10.1)	14 (5.5)
Mission House	1 (2.6)	4 (11.1)	0 (0.0)	0 (0.0)	7 (5.4)	12 (4.7)
Non-Governmental Organisation	0 (0.0)	8 (22.2)	0 (0.0)	1 (4.8)	0 (0.0)	9 (3.4)
Federal Medical Centre	0 (0.0)	1 (2.8)	5 (16.6)	0 (0.0)	1 (0.8)	7 (2.8)
Other public sector facility	0 (0.0)	4 (11.1)	2 (6.7)	0 (0.0)	0 (0.0)	6 (2.4)
Field Worker	0 (0.0)	0 (0.0)	0 (0.0)	5 (23.8)	1 (0.8)	6 (2.4)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.6)	2 (0.8)
Outreach /Mobile Clinic	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	1 (0.4)
Was the child taken for the test?						
Yes	35 (89.7)	32 (88.9)	27 (90.0)	18 (85.7)	121 (93.8)	233 (91.4)
No	4 (10.3)	4 (11.1)	3 (10.0)	3 (14.3)	8 (6.2)	22 (8.6)
Why was child not taken for the test?						

Not necessary	2 (50.0)	3 (75.0)	2 (66.7)	1 (33.3)	8 (100.0)	16 (72.7)
Others	2 (50.0)	0 (0.0)	1 (33.3)	1 (33.3)	0 (0.0)	4 (18.2)
Afraid of possible outcome of test	0 (0.0)	2 (50.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (9.1)
Cost too much	0 (0.0)	0 (0.0)	0 (0.0)	1 (33.3)	0 (0.0)	1 (4.6)
Too far/no transportation	0 (0.0)	0 (0.0)	0 (0.0)	1 (33.3)	0 (0.0)	1 (4.6)
Did the person provide any form of assistance for you to take for the test?						
Yes	31 (88.6)	16 (50.0)	17 (63.0)	5 (27.8)	86 (71.1)	155 (66.5)
No	4 (11.4)	16 (50.0)	10 (37.0)	13 (72.2)	35 (28.9)	78 (33.5)
What form of assistance provided for you to take						
Provided/Paid for transportation	28 (90.3)	15 (93.8)	8 (47.1)	0 (0.0)	49 (57.0)	100 (64.5)
Accompanied you to the place	10 (32.3)	14 (87.5)	9 (52.9)	5 (100.0)	51 (59.3)	89 (57.4)
Others	1 (3.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.2)	2 (1.3)

3.9 Uptake of HIV Services by the Respondents and their Children

Uptake of HIV testing services by the respondents is shown in Fig 18. More than 80% of the respondents (range 75.7% in Jalingo and 86.1% in Bali) has ever had an HIV test while 88.5% had the test during the last pregnancy. Other attributes of the testing are shown in Annex table 10. For child 0 – 14 years, 6.2% (range 3.7% in Lau and 12.6% in Zing) had been tested. Almost half (45.7%) were tested in the last 4 months before the survey (range 22.5% in Lau and 66.7% in Gashaka (Fig. 20). Other attributes of the testing are shown in Annex Table 11).



4 Key findings, Conclusions and recommendations

4.1 Key findings

1. **Characteristics of the Households and Women of Child-bearing Age Group Enrolled in the Study:** Eleven thousand, eight hundred household members were listed from the 2,166 households visited. Of these, 6,116 (51.8%) were males while 5,648 (48.2%) were females; 6,555 were children aged 0 – 14 years and consequently belonged to the target age for the study. Socio-demographic characteristics of the women recruited (one per household) showed that 1,439 (66.4%) were younger than 30 years, and almost all were married (93.3%), mostly full-time housewives (36.9%), traders (22.7%) or farmers (21.4%). Slightly more than a quarter (25.3%) had no formal education while 52.% had primary, junior or higher secondary education. Using the criteria for assessing wealth index established for the study, 52.9% of the households were in the low wealth index while 17.6% were in the middle wealth index.
2. **Reproductive History and Pregnancy Intention:** Fifty-six respondents (2.6%) were pregnant during the survey while 32.2% reported that they would like to be pregnant in the year; 68.0% of the respondents had 1 – 4 pregnancies in the past and 77.8% had 1 – 4 deliveries. One in 6 of the respondents had lost a child in the past while 31.8% of these had lost more than one child and most of the deaths (68%) occurred before the child was a year old.
3. **Antenatal Care Utilisation and Choice of Place of Delivery:** One thousand eight hundred and thirty-six (84.8%) of the respondents utilised ANC during the last pregnancy and the nurse-midwife was the most frequently seen health care provider. ANC attendance was at the primary or secondary facility except in Jalingo where the most frequently reported facility for ANC was the Federal Medical Centre. Although most of respondents (67.0%) started ANC in the second or third trimester, notwithstanding 69.7% had four or more ANC visits. The highest percentage of respondents (46.3%) had their last delivery at home. While the preferred place of delivery if pregnant again was one of a general hospital or a primary health facility for 58.1% of respondents, 24.2% still prefer to deliver at home.
4. **Knowledge, Opinions and Attitudes and Self-risk Perception about HIV/AIDS:** Almost all the respondents (94.5%) had heard about HIV/AIDS and the most frequent sources of the information were health workers, family members and friends/peers. About half (49.1%) reported knowing someone living with HIV/AIDS and 50.2% reported knowing someone who died of the disease. Correct knowledge of the routes of transmission was high although myths and incorrect knowledge was also commonly expressed. Such myths include transmission by mosquitoes and bed bugs, sharing toilets, kissing, witchcraft and sharing eating utensils. Also, the percentage of respondents who had correct knowledge of mother-to-child transmission of HIV was least compared with other routes of HIV transmission. A high percentage of the respondents knew the correct ways to avoid or prevent HIV/AIDS although several myths and incorrect ways of preventing this disease was also expressed. Respondents were most familiar with mother-to-child transmission of the HIV through breastfeeding (88.9%), during delivery (75%) and during pregnancy (60%). Two-thirds (67.2%) of the respondents knew of drugs to reduce the risk of infection while 75.9% knew of drugs that can prolong the lives of PLWHA. Half of the respondents (57.5%) perceived their risk of HIV as low.
5. **Exposure to Community-based HTS and Uptake of HIV Testing:** Three hundred and fifty-eight (17.5%) of the respondents were exposed to community-based referral for HIV test

during the last pregnancy; VHW, PMVs, TBAs referred 31 (8.7%), 15 (4.2%) and 14 (3.9%) of those referred respectively. Of the 358 respondents referred, 331 (92.5%) went for the test. The major challenges for not accessing the test after referral were "cost" (10, 37.0%), distance or lack of transportation (5, 18.5%) and objection from husband or family members (3, 11%). More than half (56.2%) of those referred were also assisted to access test. For children 0 – 14 years, 255 (4.1%) were referred in the last one year. Referral was made by VHW for 18, (7.1%), PMV for 16 (6.2%) and TBA for 1 (0.4%). Two hundred and thirty-three (91.4%) of the children were taken for test; the major challenges reported by those who did not attend include fear of possible outcome, "cost" and distance/lack of transportation. Again, the parents received assistance to access the test for 66.5% of the children.

Furthermore, 1651 (80.7%) of all the mothers had ever had an HIV test. Major reasons for not doing the test were "not considered necessary" 66.1%, "cost too much" 18.2%, "fear of outcome" and "husband/family objected" 9.4% each, challenge with transportation 8.6% and for religious reasons 1.0%. Other characteristics of testing include that 82.1% of the respondents had pre-test counselling, 92.1% received the results of test and 85.8% received counselling before disclosure of results. Twelve (0.9%) of the respondents reported that they tested positive but only 11 of these reported they were commenced on treatment to prevent mother-to-child transmission of HIV. One hundred and thirty (8.9%) of last children of the respondents were tested but only one was positive and was on treatment.

4.2 Conclusion

In conclusion, a significant proportion of the respondents were knowledgeable about HIV/AIDS but the knowledge of mother-to-child transmission of HIV was least known among the routes of HIV transmission. There were on-going community-based activities in the LGAs to refer women and their children for HTS. VHW, PMVs, TBA participated in referring pregnant women and their children although the number of such referrals were few. HTS services provided for the respondents and their children included pre- and post-test counselling and enrolment for treatment.

4.2.1 Recommendations

1. The knowledge gap in mother-to-child transmission of HIV presents a viable opportunity for health promotion on PMTCT and this should be pursued.
2. This study shows that PPMV, TBA and VHW are underused resources in HIV interventions therefore their roles should be strengthened in identifying and referring pregnant women and children for HIV services.
3. In spite of the widespread knowledge of HIV, there are still people who find it unnecessary to take test therefore activities to address knowledge gaps as well as focusing on behaviour change should continue to be implemented. In addition, efforts should be made to remove other barriers to testing identified by respondents including cost of testing, distance/transport and stigma through economic strengthening of families, more outreach testing/services closer to the people, advocacy for lowering out of pocket costs for testing and dialogues to address stigma/gender inequality.
4. It is recommended that post-test counselling in HTS should be strengthened in Taraba state in order to reduce the number of persons who do not receive test result following testing.

Annexes

Table 1. Household characteristics by LGA

Characteristics	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	n (%)	n (%)	n (%)	n (%)	n(%)	n (%)
Number of usual HH members						
2 – 5	291 (67.7)	238 (55.3)	283 (65.8)	247 (56.5)	224 (51.0)	1283 (59.2)
6 – 10	132 (30.7)	181 (42.1)	139 (32.3)	167 (38.2)	185 (42.2)	804 (37.1)
11 and above	7 (1.6)	11 (2.6)	8 (1.9)	23 (5.3)	30 (6.8)	79 (3.7)
Total	430 (100.0)	430 (100.0)	430 (100.0)	437 (100.0)	439 (100.0)	2166 (100.0)
Relationship to Head of Household						
Head	352 (16.8)	431 (17.8)	415 (18.6)	430 (17.6)	423 (16.2)	2051 (17.4)
Wife/husband/partner	446 (21.3)	426 (17.7)	444 (19.9)	441 (18.0)	422 (16.2)	2182 (18.5)
Son/daughter	1261 (60.3)	1490 (61.5)	1332 (59.7)	1450 (59.3)	1362 (52.2)	6895 (58.4)
Son in law/daughter in law	7 (0.3)	13 (0.5)	8 (0.4)	12 (0.5)	18 (0.7)	58 (0.5)
Grandchild	5 (0.2)	17 (0.7)	2 (0.1)	41 (1.7)	52 (2.0)	117 (1.0)
Parent	2 (0.1)	5 (0.2)	1 (0.0)	8 (0.3)	45 (1.7)	61 (0.5)
Parent in law	2 (0.1)	3 (0.1)	0 (0.0)	4 (0.2)	4 (0.2)	13 (0.1)
Brother/sister	5 (0.2)	22 (0.9)	10 (0.4)	38 (1.6)	181 (6.9)	256 (2.2)
Other relative	5 (0.2)	12 (0.5)	6 (0.3)	11 (0.5)	52 (2.0)	86 (0.7)
Adopted/foster/stepchild	5 (0.2)	0 (0.0)	12 (0.5)	7 (0.3)	47 (1.8)	71 (0.6)
Not related	1 (0.0)	2 (0.1)	0 (0.0)	2 (0.1)	4 (0.2)	9 (0.1)
Don't know	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)	1 (0.0)
Total	2091 (%)	2424 (%)	2230 (%)	2444 (%)	12611 (%)	11800 (%)
Sex						
Male	1109 (53.0)	1243 (51.3)	1161 (52.1)	1233 (50.5)	1370 (52.5)	6116 (51.8)
Female	982 (47.0)	1181 (48.7)	1069 (47.9)	1211 (49.5)	1241 (47.5)	5684 (48.2)
Total	2091 (%)	2424 (%)	2230 (%)	2444 (%)	12611 (%)	11800 (%)
Age Household members (in years)						
Less than 15	1189 (56.9)	1424 (58.8)	1258 (56.4)	1300 (53.2)	1384 (53.0)	6555 (55.6)
15 – 20	230 (11.0)	235 (9.7)	191 (8.6)	245 (10.0)	265 (10.2)	1166 (9.9)
21 – 29	209 (10.0)	259 (10.7)	214 (9.6)	277 (11.3)	347 (13.3)	1306 (11.1)

30 – 39	298 (14.2)	320 (13.2)	354 (15.9)	344 (14.1)	337 (12.9)	1653 (14.0)
40 – 49	118 (5.6)	118 (4.9)	166 (7.4)	200 (8.2)	169 (6.5)	771 (6.5)
50 and above	47 (2.3)	68 (2.8)	47 (2.1)	78 (3.2)	109 (4.2)	349 (2.9)
Total	2091 (%)	2424 (%)	2230 (%)	2444 (%)	12611 (%)	11800 (%)
Number of eligible children						
Eligible	1189 (56.9)	1424 (58.8)	1258 (56.4)	1300 (53.2)	1384 (53.0)	6555 (55.6)
Others	902 (43.1)	1000 (41.3)	972 (43.6)	1144 (46.8)	1227 (47.0)	5245 (44.4)
Total	2091 (%)	2424 (%)	2230 (%)	2444 (%)	12611 (%)	11800 (%)

Table 2. Social and demographic characteristics of the women

Characteristics	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	2166 (%)
Age (in years)						
<20	133 (30.9)	131 (30.5)	80 (18.6)	94 (21.5)	86 (19.6)	524 (24.2)
20 – 29	158 (36.7)	187 (43.5)	180 (41.9)	187 (42.8)	203 (46.2)	915 (42.2)
30 – 39	125 (29.1)	101 (23.5)	157 (36.5)	133 (30.4)	130 (29.6)	646 (29.8)
40 – 49	14 (3.3)	11 (2.5)	13 (3.0)	23 (5.3)	20 (4.6)	81 (3.7)
Main Occupation						
Housewife	165 (38.4)	137 (31.9)	195 (45.3)	228 (52.2)	75 (17.1)	800 (36.9)
Trading	104 (24.2)	87 (20.2)	108 (25.1)	72 (16.5)	121 (27.6)	492 (22.7)
Farmer/Forestry/Fishing/Mining	86 (20.0)	141 (32.8)	0 (0.0)	64 (14.6)	173 (39.4)	464 (21.4)
Unemployed	26 (6.0)	11 (2.6)	3 (0.7)	25 (5.7)	24 (5.5)	89 (4.1)
Artisan	1 (0.2)	20 (4.7)	39 (9.1)	4 (0.9)	6 (1.4)	70 (3.2)
Informal sector (hawkers etc.)	6 (1.4)	2 (0.5)	1 (0.2)	28 (6.4)	27 (6.2)	64 (3.0)
Civil Servant	7 (1.6)	5 (1.2)	34 (7.9)	1 (0.2)	1 (0.2)	48 (2.2)
Others	25 (5.8)	4 (0.9)	2 (0.5)	7 (1.6)	1 (0.2)	39 (1.8)
Unskilled labour	6 (1.4)	19 (4.4)	5 (1.2)	3 (0.7)	0 (0.0)	33 (1.5)
Student	3 (0.7)	4 (0.9)	9 (2.1)	2 (0.5)	7 (1.6)	25 (1.2)
Paid employment (informal sector)	0 (0.0)	0 (0.0)	17 (4.0)	0 (0.0)	3 (0.7)	20 (0.9)
Paid employment (formal sector – not civil servant)	1 (0.2)	0 (0.0)	8 (1.9)	1 (0.2)	1 (0.2)	11 (0.5)
Apprentice	0 (0.0)	0 (0.0)	5 (1.2)	2 (0.5)	0 (0.0)	7 (0.3)
Clerk/clerical	0 (0.0)	0 (0.0)	4 (0.9)	0 (0.0)	0 (0.0)	4 (0.2)
Highest level of Education						
None	133 (30.9)	161 (37.4)	67 (15.6)	91 (20.8)	95 (21.6)	547 (25.3)

Senior Secondary	61 (14.2)	64 (14.9)	118 (27.4)	118 (27.0)	112 (25.5)	473 (21.8)
Primary	77 (17.9)	108 (25.1)	41 (9.5)	89 (20.4)	121 (27.6)	436 (20.1)
Quranic only	84 (19.5)	47 (10.9)	89 (20.7)	77 (17.6)	26 (5.9)	323 (14.9)
Junior Secondary	52 (12.1)	40 (9.3)	31 (7.2)	52 (11.9)	64 (14.6)	239 (11.0)
Higher	23 (5.3)	10 (2.3)	84 (19.5)	10 (2.3)	21 (4.8)	148 (6.8)
Marital status						
Married	413 (96.0)	405 (94.2)	411 (95.6)	391 (89.5)	400 (91.1)	2020 (93.3)
Never married	10 (2.3)	12 (2.8)	7 (1.6)	35 (8.0)	15 (3.4)	79 (3.6)
Divorced/Separated	2 (0.5)	7 (1.6)	7 (1.6)	5 (1.1)	5 (1.1)	26 (1.2)
Cohabiting	2 (0.5)	1 (0.2)	1 (0.2)	4 (0.9)	15 (3.4)	23 (1.1)
Widow	3 (0.7)	5 (1.2)	4 (0.9)	2 (0.5)	4 (0.9)	18 (0.8)
Religion						
Islam	280 (65.1)	266 (61.9)	310 (72.1)	208 (47.6)	87 (19.8)	1151 (53.1)
Christianity	150 (34.9)	163 (37.9)	119 (27.7)	228 (52.2)	352 (80.2)	1012 (46.7)
No religion	0 (0.0)	1 (0.2)	1 (0.2)	0 (0.0)	0 (0.0)	2 (0.1)
Traditional	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)	0 (0.0)	1 (0.0)
Ethnic group						
Others	261 (60.7)	187 (43.5)	164 (38.1)	199 (45.5)	300 (68.3)	1111 (51.3)
Hausa	87 (20.2)	153 (35.6)	110 (25.6)	152 (34.8)	105 (23.9)	607 (28.0)
Fulani	78 (18.1)	84 (19.5)	142 (33.0)	86 (19.7)	32 (7.3)	422 (19.5)
Igbo	4 (0.9)	6 (1.4)	11 (2.6)	0 (0.0)	2 (0.5)	23 (1.1)
Yoruba	0 (0.0)	0 (0.0)	3 (0.7)	0 (0.0)	0 (0.0)	3 (0.1)

Table 2b. Household dwelling structure and wealth index

Dwelling structure						
Mud house with thatched roof	39 (9.1)	62 (14.4)	7 (1.6)	244 (55.8)	282 (64.2)	634 (29.3)
Room and Parlour	71 (16.5)	107 (24.9)	123 (28.6)	59 (13.5)	34 (7.7)	394 (18.2)
Single room	65 (15.1)	105 (24.4)	90 (20.9)	45 (10.3)	14 (3.2)	319 (14.7)
Single family house	89 (20.7)	40 (9.3)	103 (24.0)	30 (6.9)	6 (1.4)	268 (12.4)
Mud house with zinc roof	88 (20.5)	101 (23.5)	3 (0.7)	33 (7.6)	33 (7.5)	258 (11.9)
2-3 bedroom flat	39 (9.1)	13 (3.0)	75 (17.4)	9 (2.1)	48 (10.9)	184 (8.5)
Mini flat	37 (8.6)	2 (0.5)	28 (6.5)	8 (1.8)	22 (5.0)	97 (4.5)
Wood and makeshift structures	0 (0.0)	0 (0.0)	0 (0.0)	9 (2.1)	0 (0.0)	9 (0.4)
Others	2 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)
Duplex	0 (0.0)	0 (0.0)	1 (0.2)	0 (0.0)	0 (0.0)	1 (0.0)

Wealth index						
Low	261 (60.7)	338 (78.6)	37 (8.6)	229 (52.4)	280 (63.8)	1145 (52.9)
Middle	77 (17.9)	50 (11.6)	67 (15.6)	115 (26.3)	73 (16.6)	382 (17.6)
High	92 (21.4)	42 (9.8)	326 (75.8)	93 (21.3)	86 (19.6)	639 (29.5)

Table 3. Household amenities and possession of household electronic and other items

Available or owned household items	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	2166 (%)
Electricity						
Yes	414 (96.3)	412 (95.8)	34 (7.9)	296 (67.7)	292 (66.5)	1448 (66.9)
No	16 (3.7)	18 (4.2)	396 (92.1)	141 (32.3)	147 (33.5)	718 (33.1)
Radio						
Yes	265 (61.6)	378 (87.9)	189 (44.0)	294 (67.3)	341 (77.7)	1467 (67.7)
No	165 (38.4)	52 (12.1)	241 (56.0)	143 (32.7)	98 (22.3)	699 (32.3)
Television						
Yes	327 (76.0)	352 (81.9)	108 (25.1)	330 (75.5)	337 (76.8)	1454 (67.1)
No	103 (24.0)	78 (18.1)	322 (74.9)	107 (24.5)	102 (23.2)	712 (32.9)
Mobile phone						
Yes	143 (33.3)	226 (52.6)	75 (17.4)	103 (23.6)	237 (54.0)	784 (36.2)
No	287 (66.7)	204 (47.4)	355 (82.6)	334 (76.4)	202 (46.0)	1382 (63.8)
Refrigerator						
Yes	407 (94.7)	412 (95.8)	263 (61.2)	411 (94.1)	413 (94.1)	1906 (88.0)
No	23 (5.3)	18 (4.2)	167 (38.8)	26 (5.9)	26 (5.9)	260 (12.0)
Cable Tv						
Yes	401 (93.3)	406 (94.4)	252 (58.6)	421 (96.3)	394 (89.7)	1874 (86.5)
No	29 (6.7)	24 (5.6)	178 (41.4)	16 (3.7)	45 (10.3)	292 (13.5)
Generating set						
Yes	334 (77.7)	374 (87.0)	344 (80.0)	410 (93.8)	416 (94.8)	1878 (86.7)
No	96 (22.3)	56 (13.0)	86 (20.0)	27 (6.2)	23 (5.2)	288 (13.3)
Air condition						
Yes	428 (99.5)	428 (99.5)	395 (91.9)	436 (99.8)	439 (100.0)	2126 (98.2)
No	2 (0.5)	2 (0.5)	35 (8.1)	1 (0.2)	0 (0.0)	40 (1.8)

Computer						
Yes	422 (98.1)	429 (99.8)	394 (91.6)	434 (99.3)	438 (99.8)	2117 (97.7)
No	8 (1.9)	1 (0.2)	36 (8.4)	3 (0.7)	1 (0.2)	49 (2.3)
Electric iron						
Yes	419 (97.4)	424 (98.6)	170 (39.5)	400 (91.5)	397 (90.4)	1810 (83.6)
No	11 (2.6)	6 (1.4)	260 (60.5)	37 (8.5)	42 (9.6)	356 (16.4)
Fan						
Yes	362 (84.2)	402 (93.5)	84 (19.5)	380 (87.0)	361 (82.2)	1589 (73.4)
No	68 (15.8)	28 (6.5)	346 (80.5)	57 (13.0)	78 (17.8)	577 (26.6)

Table 4. Household main source of water for drinking and other domestic use

Main source of water supply	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	2166 (%)
Source of water for drinking						
From the borehole	90 (20.9)	206 (47.9)	55 (12.8)	121 (27.7)	177 (40.3)	649 (30.0)
From the well	282 (65.6)	90 (20.9)	88 (20.5)	92 (21.1)	125 (28.5)	677 (31.3)
From the stream	18 (4.2)	88 (20.5)	67 (15.6)	211 (48.3)	114 (26.0)	498 (23.0)
Water vendors	13 (3.0)	1 (0.2)	72 (16.7)	3 (0.7)	5 (1.1)	94 (4.3)
Pure water	1 (0.2)	5 (1.2)	71 (16.5)	1 (0.2)	1 (0.2)	79 (3.6)
From the street tap	4 (0.9)	10 (2.3)	33 (7.7)	3 (0.7)	5 (1.1)	55 (2.5)
From the in-house tap	1 (0.2)	22 (5.1)	13 (3.0)	0 (0.0)	1 (0.2)	37 (1.7)
Packaged water	6 (1.4)	0 (0.0)	25 (5.8)	1 (0.2)	3 (0.7)	35 (1.6)
Rain water	9 (2.1)	7 (1.6)	3 (0.7)	5 (1.1)	3 (0.7)	27 (1.2)
From a tanker	6 (1.4)	1 (0.2)	3 (0.7)	0 (0.0)	1 (0.2)	11 (0.5)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (0.9)	4 (0.2)
Source of water for domestic use						
From the well	325 (75.6)	107 (24.9)	138 (32.1)	105 (24.0)	136 (31.0)	811 (37.4)
From the stream	18 (4.2)	136 (31.6)	80 (18.6)	235 (53.8)	130 (29.6)	599 (27.7)
From the borehole	64 (14.9)	143 (33.3)	60 (14.0)	94 (21.5)	154 (35.1)	515 (23.8)
Water vendors	12 (2.8)	0 (0.0)	84 (19.5)	2 (0.5)	6 (1.4)	104 (4.8)
From the street tap	4 (0.9)	14 (3.3)	35 (8.1)	1 (0.2)	5 (1.1)	59 (2.7)
From the in-house tap	1 (0.2)	27 (6.3)	23 (5.3)	0 (0.0)	0 (0.0)	51 (2.4)
From a tanker	6 (1.4)	0 (0.0)	6 (1.4)	0 (0.0)	4 (0.9)	16 (0.7)
Rain water	0 (0.0)	3 (0.7)	2 (0.5)	0 (0.0)	0 (0.0)	5 (0.2)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (0.9)	4 (0.2)
Packaged water	0 (0.0)	0 (0.0)	2 (0.5)	0 (0.0)	0 (0.0)	2 (0.1)

Table 5. Women's pregnancy history

Pregnancy history	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Currently pregnant						
Yes	2 (0.5)	7 (1.6)	9 (2.1)	15 (3.4)	23 (5.2)	56 (2.6)
No	428 (99.5)	423 (98.4)	421 (97.9)	422 (96.6)	416 (94.8)	2110 (97.4)
Intends to get pregnant within the next one year						
Yes	126 (29.4)	165 (39.0)	136 (32.3)	138 (32.7)	124 (29.8)	689 (32.7)
No	302 (70.6)	258 (61.0)	285 (67.7)	284 (67.3)	292 (70.2)	1421 (67.3)
Number of pregnancies ever had						
1 – 2	196 (45.6)	163 (37.9)	186 (43.3)	173 (39.6)	187 (42.6)	905 (41.8)
3 – 4	131 (30.5)	113 (26.3)	119 (27.7)	124 (28.4)	142 (32.4)	629 (29.0)
5 and above	103 (24.0)	154 (35.8)	125 (29.0)	140 (32.0)	110 (25.0)	632 (29.2)
Number of deliveries ever had						
1 – 2	205 (47.7)	168 (39.1)	209 (48.6)	188 (43.0)	204 (46.5)	974 (45.0)
3 – 4	130 (30.2)	118 (27.4)	121 (28.1)	134 (30.7)	137 (31.2)	640 (29.5)
5 and above	95 (22.1)	144 (33.5)	100 (23.3)	115 (26.3)	98 (22.3)	552 (25.5)
Status of the children						
Yes	370 (86.0)	342 (79.5)	365 (84.9)	376 (86.0)	358 (81.5)	1811 (83.6)
No	60 (14.0)	88 (20.5)	65 (15.1)	61 (14.0)	81 (18.5)	355 (16.4)
Number of respondents' children that died						
1 child only	39 (65.0)	53 (60.2)	56 (86.2)	41 (67.2)	53 (65.4)	242 (68.2)
2 – 3 children	19 (31.7)	31 (35.2)	9 (13.8)	18 (29.5)	24 (29.6)	101 (28.4)
4 children and above	2 (3.3)	4 (4.6)	0 (0.0)	2 (3.3)	4 (4.9)	12 (3.4)
Total number of children died						
Children died	93	143	77	94	128	535
Age of children when died (years)						
Less than 1 (Infants)	76 (81.7)	98 (68.5)	53 (68.8)	55 (58.5)	59 (46.1)	341 (63.7)

1 – 4 (Under-five)	17 (18.3)	39 (27.3)	18 (23.4)	35 (37.2)	54 (42.2)	163 (30.5)
5 years and above	0 (0.0)	6 (4.2)	6 (7.8)	4 (4.3)	15 (11.7)	31 (5.8)

Table 6a. Antenatal Care Services Utilisation

Antenatal care services	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Had ANC for last pregnancy?						
Yes	360 (83.7)	361 (84.0)	384 (89.3)	352 (80.5)	379 (86.3)	1836 (84.8)
No	70 (16.3)	69 (16.0)	46 (10.7)	85 (19.5)	60 (13.7)	330 (15.2)
Healthcare provider seen last ANC?						
Nurse/Midwife	345 (95.8)	325 (90.0)	272 (70.8)	312 (88.6)	269 (71.0)	1523 (83.0)
Doctor	44 (12.2)	127 (35.2)	258 (67.2)	55 (15.6)	75 (19.8)	559 (30.4)
Community Health Extension Worker	8 (2.2)	59 (16.3)	48 (12.5)	9 (2.6)	83 (21.9)	207 (11.3)
Auxiliary Midwife	4 (1.1)	19 (5.3)	4 (1.0)	21 (6.0)	52 (13.7)	100 (5.4)
Village health worker	2 (0.6)	11 (3.0)	0 (0.0)	2 (0.6)	19 (5.0)	34 (1.9)
Traditional birth attendant	1 (0.3)	1 (0.3)	1 (0.3)	4 (1.1)	1 (0.3)	8 (0.4)
Others	0 (0.0)	0 (0.0)	1 (0.3)	1 (0.3)	3 (0.8)	5 (0.3)
Place where see for ANC during the last pregnancy						
Primary Health Centre	110 (30.6)	179 (49.6)	97 (25.3)	171 (48.6)	68 (17.9)	625 (34.0)
General Hospital	215 (59.7)	104 (28.8)	74 (19.3)	37 (10.5)	183 (48.3)	613 (33.4)
Primary Health Clinic	13 (3.6)	57 (15.8)	95 (24.7)	111 (31.5)	75 (19.8)	351 (19.1)
Private hospital/Clinic	16 (4.4)	9 (2.5)	38 (9.9)	11 (3.1)	26 (6.9)	100 (5.4)
Federal Medical Centre	2 (0.6)	1 (0.3)	80 (20.8)	10 (2.8)	1 (0.3)	94 (5.1)
Health post	12 (3.3)	22 (6.1)	10 (2.6)	21 (6.0)	27 (7.1)	92 (5.0)
Mission House	3 (0.8)	40 (11.1)	0 (0.0)	2 (0.6)	15 (4.0)	60 (3.3)
Other public sector facility	3 (0.8)	20 (5.5)	6 (1.6)	1 (0.3)	0 (0.0)	30 (1.6)
Home	2 (0.6)	2 (0.6)	0 (0.0)	3 (0.9)	1 (0.3)	8 (0.4)
Traditional Birth Attendants	0 (0.0)	0 (0.0)	1 (0.3)	6 (1.7)	0 (0.0)	7 (0.4)
Others (specify)	0 (0.0)	1 (0.3)	6 (1.6)	1 (0.3)	0 (0.0)	8 (0.4)
Main place where ANC was received						
Primary Health Centre	110 (30.6)	148 (41.0)	96 (25.0)	161 (45.7)	65 (17.2)	580 (31.6)
General Hospital	208 (57.8)	93 (25.8)	68 (17.7)	26 (7.4)	177 (46.7)	572 (31.2)
Primary Health Clinic	10 (2.8)	37 (10.2)	88 (22.9)	118 (33.5)	73 (19.3)	326 (17.8)
Private hospital/Clinic	13 (3.6)	9 (2.5)	35 (9.1)	8 (2.3)	23 (6.1)	88 (4.8)
Federal Medical Centre	1 (0.3)	1 (0.3)	71 (18.5)	8 (2.3)	1 (0.3)	82 (4.5)

Health post	11 (3.1)	17 (4.7)	9 (2.3)	17 (4.8)	24 (6.3)	78 (4.2)
Mission House	3 (0.8)	34 (9.4)	0 (0.0)	2 (0.6)	14 (3.7)	53 (2.9)
Other public sector facility	3 (0.8)	20 (5.5)	5 (1.3)	0 (0.0)	0 (0.0)	28 (1.5)
Home	1 (0.3)	2 (0.6)	6 (1.6)	5 (1.4)	1 (0.3)	15 (0.8)
Traditional Birth Attendants	0 (0.0)	0 (0.0)	1 (0.3)	6 (1.7)	1 (0.3)	8 (0.4)
Others (specify)	0 (0.0)	0 (0.0)	5 (1.3)	1 (0.3)	0 (0.0)	6 (0.3)
How many months pregnant when first received ANC in the last pregnancy						
1 – 3	114 (31.7)	129 (35.7)	79 (20.6)	128 (36.4)	156 (41.2)	606 (33.0)
4 – 6	198 (55.0)	187 (51.8)	277 (72.1)	202 (57.4)	201 (53.0)	1,065 (58.0)
7 – 9	48 (13.3)	45 (12.5)	28 (7.3)	22 (6.2)	22 (5.8)	165 (9.0)
Number of times received ANC in the last pregnancy (in months)						
1 – 3	119 (33.1)	117 (32.4)	55 (14.3)	101 (28.7)	165 (43.5)	557 (30.3)
4 – 6	195 (54.2)	194 (53.7)	268 (69.8)	215 (61.1)	180 (47.5)	1,052 (57.3)
7 – 9	46 (12.7)	50 (13.9)	61 (15.9)	36 (10.2)	34 (9.0)	227 (12.4)

Table 6b. Care functions provided during last ANC

Antenatal care services	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Vital signs check during ANC						
Blood pressure	358 (99.4)	344 (95.3)	381 (99.2)	338 (96.0)	358 (94.5)	1,779 (96.9)
Blood test	290 (80.6)	306 (84.7)	373 (97.1)	291 (82.7)	358 (94.5)	1,618 (88.1)
Urine	333 (92.5)	288 (79.8)	382 (99.5)	254 (72.2)	329 (86.8)	1,586 (86.3)
Information on HIV/AIDS during any of the last ANC visits						
Information of testing for HIV	347 (96.4)	277 (76.7)	303 (78.9)	281 (79.8)	327 (86.3)	1,535 (83.6)
Information on preventing HIV	343 (95.3)	262 (72.6)	289 (75.3)	301 (85.5)	305 (80.5)	1,500 (81.7)
Information of PMTCT	334 (92.8)	203 (56.2)	271 (70.6)	300 (85.2)	280 (73.9)	1,388 (75.6)

Table 6c. Choice of place of delivery

Antenatal care services	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Place of birth of the last baby						
Home	193 (44.9)	152 (35.3)	120 (27.9)	240 (54.9)	298 (67.9)	1003 (46.3)
Primary Health Centre	57 (13.3)	111 (25.8)	65 (15.1)	83 (19.0)	22 (5.0)	338 (15.6)
General Hospital	142 (33.0)	74 (17.2)	55 (12.8)	14 (3.2)	43 (9.8)	328 (15.1)
Primary Health Clinic	10 (2.3)	26 (6.0)	65 (15.1)	36 (8.2)	40 (9.1)	177 (8.2)
Private hospital/Clinic	16 (3.7)	7 (1.6)	33 (7.7)	6 (1.4)	10 (2.3)	72 (3.3)
Federal Medical Centre	3 (0.7)	1 (0.2)	61 (14.2)	5 (1.1)	0 (0.0)	70 (3.2)
Traditional Birth Attendants	0 (0.0)	1 (0.2)	13 (3.0)	42 (9.6)	1 (0.2)	57 (2.6)
Health post	6 (1.4)	13 (3.0)	9 (2.1)	7 (1.6)	12 (2.7)	47 (2.2)
Mission House	1 (0.2)	32 (7.4)	0 (0.0)	0 (0.0)	8 (1.8)	41 (1.9)
Other public sector facility	1 (0.2)	8 (1.9)	4 (0.9)	2 (0.5)	0 (0.0)	15 (0.7)
Others (specify)	1 (0.2)	5 (1.2)	5 (1.2)	2 (0.5)	5 (1.1)	18 (0.8)
Why not delivered in any health facility						
No time because baby came suddenly	106 (50.2)	76 (44.2)	68 (42.0)	103 (41.2)	114 (36.4)	467 (42.1)
Not necessary	28 (13.3)	41 (23.8)	32 (19.8)	48 (19.2)	96 (30.7)	245 (22.1)
Cost too much	8 (3.8)	25 (14.5)	21 (13.0)	35 (14.0)	59 (18.8)	148 (13.4)
others	41 (19.4)	3 (1.7)	14 (8.6)	14 (5.6)	14 (4.5)	86 (7.8)
Too far/no transportation	7 (3.3)	16 (9.3)	7 (4.3)	20 (8.0)	2 (0.6)	52 (4.7)
Not customary	9 (4.3)	3 (1.7)	3 (1.9)	6 (2.4)	25 (8.0)	46 (4.2)
Husband /family did not allow	11 (5.2)	6 (3.5)	14 (8.6)	9 (3.6)	2 (0.6)	42 (3.8)
Don't trust facility/poor quality service	1 (0.5)	1 (0.6)	2 (1.2)	7 (2.8)	1 (0.3)	12 (1.1)
No female provider at facility	0 (0.0)	1 (0.6)	0 (0.0)	5 (2.0)	0 (0.0)	6 (0.5)
Facility not opened	0 (0.0)	0 (0.0)	1 (0.6)	3 (1.2)	0 (0.0)	4 (0.4)
Preferred place of delivery if pregnant again						
General Hospital	219 (50.9)	117 (27.2)	78 (18.1)	26 (5.9)	92 (21.0)	532 (24.6)
Home	71 (16.5)	60 (14.0)	78 (18.1)	123 (28.1)	193 (44.0)	525 (24.2)
Primary Health Centre	97 (22.6)	149 (34.7)	64 (14.9)	116 (26.5)	47 (10.7)	473 (21.8)
Primary Health Clinic	14 (3.3)	32 (7.4)	67 (15.6)	94 (21.5)	46 (10.5)	253 (11.7)
Federal Medical Centre	5 (1.2)	1 (0.2)	89 (20.7)	5 (1.1)	1 (0.2)	101 (4.7)
Traditional Birth Attendants	0 (0.0)	1 (0.2)	9 (2.1)	53 (12.1)	0 (0.0)	63 (2.9)
Private hospital/Clinic	9 (2.1)	5 (1.2)	30 (7.0)	4 (0.9)	10 (2.3)	58 (2.7)
Health post	13 (3.0)	15 (3.5)	7 (1.6)	10 (2.3)	8 (1.8)	53 (2.4)
Mission House	1 (0.2)	34 (7.9)	1 (0.2)	0 (0.0)	12 (2.7)	48 (2.2)
Others (specify)	1 (0.2)	6 (1.4)	3 (0.7)	5 (1.1)	30 (6.8)	45 (2.1)

Other public sector facility	0 (0.0)	10 (2.3)	4 (0.9)	1 (0.2)	0 (0.0)	15 (0.7)
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Table 7a. Knowledge, opinions, and attitudes about HIV and AIDS

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	430 (%)	430 (%)	430 (%)	437 (%)	439 (%)	
Ever heard of AIDS or HIV						
Yes	425 (98.8)	398 (92.6)	387 (90.0)	423 (96.8)	413 (94.1)	2,046 (94.5)
No	5 (1.2)	32 (7.4)	43 (10.0)	14 (3.2)	26 (5.9)	120 (5.5)
Source of information about HIV/AIDS						
Health workers in the health facility	319 (75.1)	225 (56.5)	255 (65.9)	261 (61.7)	322 (78.0)	1382 (67.6)
Family members/Relatives	179 (42.1)	273 (68.6)	174 (45.0)	244 (57.7)	209 (50.6)	1079 (52.7)
Friends/Peers	190 (44.7)	115 (28.9)	201 (51.9)	301 (71.2)	214 (51.8)	1021 (49.9)
Community Health Worker	104 (24.5)	50 (12.7)	30 (7.8)	111 (26.2)	25 (6.1)	320 (15.6)
Electronic media (Television/Radio)	8 (1.9)	9 (2.3)	181 (46.8)	14 (3.3)	75 (18.2)	287 (14.0)
NGOs/CBOs	31 (7.3)	9 (2.3)	10 (2.6)	5 (1.2)	1 (0.2)	56 (2.7)
Print media (newspapers and magazines)	9 (2.1)	5 (1.3)	22 (5.7)	2 (0.5)	10 (2.4)	48 (2.4)
Social media (WhatsApp, Facebook, Twitter, Websites, etc)	5 (1.2)	4 (1.0)	26 (6.7)	2 (0.5)	3 (0.7)	40 (2.0)
Seminars/Workshops	18 (4.2)	1 (0.3)	9 (2.3)	1 (0.2)	4 (1.0)	33 (1.6)
Others	3 (0.7)	7 (1.8)	3 (0.8)	4 (1.0)	37 (9.0)	54 (2.6)
Knows/think AIDS has a cure						
Yes, it has a cure	59 (13.9)	39 (9.8)	50 (12.9)	47 (11.1)	146 (35.3)	341 (16.7)
No, it does not have a cure	309 (72.7)	262 (65.8)	260 (67.2)	313 (74.0)	187 (45.3)	1331 (65.0)
Don't Know	57 (13.4)	97 (24.4)	77 (19.9)	63 (14.9)	80 (19.4)	34 (18.3)
Know someone who has the virus (HIV) or who has AIDS?						
Yes	217 (51.1)	139 (34.9)	194 (50.1)	251 (59.3)	203 (49.2)	1004 (49.1)
No	208 (48.9)	259 (65.1)	193 (49.9)	172 (40.7)	210 (50.8)	1042 (50.9)
Know someone who died of AIDS						
Yes	201 (47.3)	165 (41.5)	211 (54.5)	206 (48.7)	243 (58.8)	1026 (50.2)
No	224 (52.7)	233 (58.5)	176 (45.5)	217 (51.3)	170 (41.2)	1020 (49.8)
Routes of transmission of the HI virus						

Sexual Intercourse	405 (95.3)	388 (97.5)	370 (95.6)	420 (99.3)	385 (93.2)	1968 (96.2)
Sharing sharp objects like razors	417 (98.1)	387 (97.2)	369 (95.3)	406 (95.9)	367 (88.9)	1946 (95.1)
Sharing needles	408 (96.0)	372 (93.5)	364 (94.1)	405 (95.7)	359 (86.9)	1908 (93.3)
Blood transfusion	356 (83.8)	353 (88.7)	367 (94.8)	379 (89.6)	326 (78.9)	1781 (87.0)
Mother to unborn child	249 (58.6)	222 (55.8)	316 (81.7)	346 (81.8)	323 (78.2)	1456 (71.2)
Mosquito bites/bed bugs	92 (21.6)	70 (17.6)	67 (17.3)	66 (15.6)	214 (51.8)	509 (24.9)
Sharing toilets	100 (23.5)	33 (8.3)	83 (21.4)	95 (22.5)	189 (45.8)	500 (24.4)
Kissing	85 (20.0)	39 (9.8)	53 (13.7)	115 (27.2)	165 (39.9)	457 (22.3)
Witchcraft	130 (30.6)	76 (19.8)	59 (15.2)	50 (11.8)	111 (26.9)	429 (20.9)
Sharing eating utensils	71 (16.7)	32 (8.0)	67 (17.3)	100 (23.6)	138 (33.4)	408 (19.9)
Hugging	27 (6.4)	9 (2.3)	24 (6.2)	65 (15.4)	119 (28.8)	244 (11.9)
Knows that a healthy-looking person can have HIV						
Yes	278 (65.4)	197 (49.5)	329 (85.0)	327 (77.3)	289 (70.0)	1420 (69.4)
No	22 (5.2)	87 (21.9)	23 (5.9)	73 (17.3)	45 (10.9)	250 (12.2)
Don't know	125 (29.4)	114 (28.6)	35 (9.0)	23 (5.4)	79 (19.1)	376 (18.4)

Table 7b. Knowledge on ways to avoid HIV and AIDS

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	425 (%)	398 (%)	387 (%)	423 (%)	413 (%)	2,046 (%)
Ways to avoid getting HIV, the virus that causes AIDS						
Avoid sharing of sharp objects like needles, razors	417 (98.1)	355 (89.2)	376 (97.2)	409 (96.9)	381 (92.3)	1938 (94.7)
Staying with one faithful uninfected partner	412 (96.9)	358 (89.9)	369 (95.3)	412 (97.4)	365 (88.4)	1916 (93.6)
Avoiding sex with commercial sex workers	398 (93.6)	314 (78.9)	336 (86.8)	405 (95.7)	341 (82.6)	1794 (87.7)
Avoiding sex with people who have many sexual partners	365 (85.9)	319 (80.2)	353 (91.2)	413 (97.6)	329 (79.7)	1779 (86.9)
Abstaining from sex	377 (88.7)	271 (68.1)	297 (76.7)	397 (93.9)	357 (86.4)	1699 (83.0)
Reducing number of sexual partners	336 (79.1)	300 (75.4)	332 (85.8)	407 (96.2)	319 (77.2)	1694 (82.8)
Using condoms every time	405 (95.3)	323 (81.2)	334 (86.3)	329 (77.8)	291 (70.5)	1682 (82.2)

Going for check-ups	341 (80.2)	248 (62.3)	230 (59.4)	274 (64.8)	394 (71.2)	1387 (67.8)
Praying to God	254 (57.7)	255 (64.1)	261 (67.4)	271 (64.1)	308 (74.6)	1340 (65.5)
Delaying the onset of sexual intercourse	268 (63.1)	176 (44.2)	209 (54.0)	356 (84.2)	311 (75.3)	1320 (64.5)
Using antibiotics	135 (31.8)	144 (36.2)	126 (32.6)	135 (31.9)	151 (36.6)	691 (33.8)
Seek protection from a traditional healer	64 (15.1)	41 (10.3)	80 (20.7)	69 (16.3)	74 (17.9)	328 (16.0)
Nothing	9 (2.1)	13 (3.3)	50 (12.9)	27 (6.4)	28 (6.8)	127 (6.2)
Knows HIV can be transmitted from a mother to her child during pregnancy						
Yes	211 (49.6)	118 (29.6)	224 (57.9)	345 (81.5)	329 (79.7)	1227 (60.0)
No	113 (26.6)	171 (43.0)	74 (19.1)	40 (9.5)	44 (10.6)	442 (21.6)
Don't know	101 (23.8)	109 (27.4)	89 (23.0)	38 (9.0)	40 (9.7)	377 (18.4)
Knows HIV can be transmitted from a mother to child during delivery						
Yes	326 (76.7)	221 (55.5)	275 (71.1)	360 (85.1)	353 (85.5)	1535 (75.0)
No	32 (7.5)	65 (16.3)	36 (9.3)	30 (7.1)	27 (6.5)	190 (9.3)
Don't know	67 (15.8)	112 (28.1)	76 (19.6)	33 (7.8)	33 (8.0)	321 (15.7)
Knows HIV can be transmitted from a mother to child through breastfeeding						
Yes	399 (93.9)	319 (80.2)	333 (86.1)	384 (90.8)	383 (92.7)	1818 (88.9)
No	5 (1.2)	11 (2.8)	14 (3.6)	15 (3.3)	12 (2.9)	57 (2.8)
Don't know	21 (4.9)	68 (17.0)	40 (10.3)	24 (5.7)	18 (4.4)	171 (8.3)
Knows special drugs that can reduce the risk of transmission to the baby?						
Yes	295 (69.4)	215 (54.0)	240 (62.0)	349 (82.5)	275 (66.6)	1374 (67.2)
No	37 (8.7)	37 (9.3)	40 (10.3)	45 (10.6)	22 (5.3)	181 (8.9)
Don't know	93 (21.9)	146 (36.7)	107 (27.7)	29 (6.9)	116 (28.1)	491 (24.0)
Knows special drugs that can prolong the life of PLWHH						
Yes	335 (78.8)	266 (66.8)	275 (71.1)	369 (87.2)	308 (74.6)	1553 (75.9)
No	48 (11.3)	32 (8.0)	41 (10.6)	33 (7.8)	23 (5.6)	177 (8.7)
Don't know	42 (9.9)	100 (25.1)	71 (18.3)	21 (5.0)	82 (19.8)	316 (15.4)

Table 7c. Knowledge on risk of HIV transmission

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
Risk of HIV transmission from mother-to-child and during sexual intercourse when a HIV positive person is on treatment						
Increase	5 (1.5)	5 (1.9)	26 (9.5)	25 (6.8)	19 (6.2)	80 (5.2)
Decrease	224 (67.1)	194 (72.9)	162 (58.9)	309 (83.7)	255 (82.8)	1144 (73.7)
Does not change	8 (2.4)	38 (14.3)	39 (14.2)	25 (6.8)	2 (0.6)	112 (7.2)
Don't know	97 (29.0)	29 (10.9)	48 (17.4)	10 (2.7)	32 (10.4)	216 (13.9)
Would you rate your chances of getting AIDS as high, low or no risk at all?						
Low	235 (55.3)	238 (59.8)	211 (54.5)	229 (54.1)	264 (63.9)	1177 (57.5)
No risk at all	61 (14.4)	71 (17.8)	79 (20.4)	186 (44.0)	114 (27.6)	511 (25.0)
No response	125 (29.4)	58 (14.6)	60 (015.5)	1 (0.2)	25 (6.1)	269 (13.1)
High	3 (0.7)	30 (7.5)	37 (9.6)	4 (1.0)	9 (2.2)	83 (4.1)
Already have HIV/AIDS	1 (0.2)	1 (0.3)	0 (0.0)	3 (0.7)	1 (0.2)	6 (0.3)
Why do you think you have a high chance of getting HIV or AIDS?						
My Spouse/partners has other partners	2 (66.7)	18 (60.0)	24 (64.9)	2 (50.0)	7 (77.8)	53 (63.9)
Had blood transfusions	2 (66.7)	18 (60.0)	24 (64.9)	2 (50.0)	7 (77.8)	53 (63.9)
Do not use condoms	0 (0.0)	23 (76.7)	19 (51.4)	3 (75.0)	2 (22.2)	47 (56.6)
Share sharp objects	1 (33.3)	3 (10.0)	6 (16.2)	2 (50.0)	4 (44.4)	16 (19.3)
I have more than one sex partner	1 (33.3)	6 (20.0)	2 (5.4)	3 (75.0)	0 (0.0)	12 (14.5)
Others	0 (0.0)	0 (0.0)	3 (8.1)	0 (0.0)	5 (55.6)	8 (9.6)
Have had injections	0 (0.0)	2 (6.7)	1 (2.7)	1 (25.0)	1 (11.1)	5 (6.0)
Sex with sex workers	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Why do you think you have a low chance or no chance of getting HIV/AIDS?						
I have only one sex partner	184 (62.2)	155 (50.2)	96 (33.10)	222 (53.5)	278 (73.5)	935 (55.4)
I trust my partner	73 (24.7)	175 (56.6)	133 (45.9)	200 (48.2)	99 (26.2)	680 (40.3)
God will protect me/It is not my destiny	28 (9.5)	82 (26.5)	102 (35.2)	103 (24.8)	96 (25.4)	411 (24.4)
I use condoms	79 (26.7)	114 (36.9)	8 (2.8)	27 (6.5)	6 (1.6)	234 (13.9)

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
I ensure injection with sterile needle	57 (19.3)	29 (9.4)	74 (25.5)	28 (6.8)	15 (4.0)	203 (12.0)
Spouse/partners has no other partner	29 (9.8)	14 (4.5)	41 (14.1)	65 (15.7)	48 (12.7)	197 (11.7)
I abstain from sex	24 (8.1)	100 (32.4)	8 (2.8)	18 (4.3)	31 (8.2)	181 (10.7)
I ensure safe blood transfusion	57 (19.3)	16 (5.2)	54 (18.6)	47 (11.3)	4 (1.1)	178 (10.6)
I have a limited number of sex partners	8 (2.7)	33 (10.7)	5 (1.7)	28 (6.8)	13 (3.4)	87 (5.2)
I avoid sex with sex workers	27 (9.1)	2 (0.7)	11 (3.8)	14 (3.4)	3 (0.8)	57 (3.4)
I seek protection from a traditional healer	5 (1.7)	1 (0.3)	4 (1.4)	15 (3.6)	2 (0.5)	27 (1.6)
Others	0 (0.0)	0 (0.0)	2 (0.7)	6 (1.5)	12 (3.2)	20 (1.2)
Do you know a place where people can go to get tested for HIV?						
Yes	410 (96.5)	349 (87.7)	333 (86.1)	389 (92.0)	383 (92.7)	1864 (91.1)
No	15 (3.5)	49 (12.3)	54 (14.0)	34 (8.0)	30 (7.3)	182 (8.9)
Place to get tested for HIV						
General Hospital	293 (71.5)	210 (60.2)	219 (65.8)	111 (28.5)	300 (78.3)	1133 (60.8)
Primary Health Centre	207 (50.5)	186 (53.3)	190 (57.1)	229 (58.9)	119 (31.1)	931 (49.9)
Primary Health Clinic	87 (21.2)	56 (16.0)	148 (44.4)	168 (43.2)	106 (27.7)	565 (30.3)
Federal Medical Centre	20 (4.9)	6 (1.7)	256 (76.9)	73 (18.8)	33 (8.6)	388 (20.8)
Private hospital/Clinic	113 (27.6)	10 (2.9)	74 (22.2)	52 (13.4)	30 (7.8)	279 (15.0)
Health post	64 (15.6)	19 (5.4)	23 (6.9)	36 (9.3)	32 (8.4)	174 (9.3)
Mission House	30 (7.3)	50 (14.3)	2 (0.6)	10 (2.6)	24 (6.3)	116 (6.2)
Field Worker	45 (11.0)	0 (0.0)	2 (0.6)	5 (1.3)	9 (2.3)	61 (3.3)
Outreach /Mobile Clinic	27 (6.6)	0 (0.0)	13 (3.9)	7 (1.8)	6 (1.6)	53 (2.8)
Other public sector facility	11 (2.7)	27 (7.7)	7 (2.1)	3 (0.8)	0 (0.0)	48 (2.6)
Non-Governmental Organisation	11 (2.7)	2 (0.6)	12 (3.6)	10 (2.6)	1 (0.3)	36 (1.9)
Family Planning Clinic	16 (3.9)	0 (0.0)	8 (2.4)	5 (1.3)	3 (0.8)	32 (1.7)
Traditional Birth Attendants	7 (1.7)	0 (0.0)	3 (0.9)	5 (1.3)	1 (0.3)	16 (0.9)
Standalone VCT Centre	1 (0.2)	2 (0.6)	0 (0.0)	3 (0.8)	1 (0.3)	7 (0.4)
Others	0 (0.0)	2 (0.6)	1 (0.3)	0 (0.0)	3 (0.8)	6 (0.3)

Table 8 Exposure to Community based referral for HTS

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
Counselled/referred to a health facility do HIV screening						
Yes	72 (16.9)	69 (17.3)	36 (9.3)	74 (17.5)	107 (25.9)	358 (17.5)
No	353 (83.1)	329 (82.7)	351 (90.7)	349 (82.5)	306 (74.1)	1688 (82.5)
Who counselled/referred you?						
Facility Based Health Worker	29 (40.3)	14 (20.3)	15 (41.7)	37 (50)	30 (28)	125 (34.9)
Husband	15 (20.8)	25 (36.2)	7 (19.4)	11 (14.9)	41 (38.3)	99 (27.7)
Relative	8 (11.1)	10 (14.5)	2 (5.6)	0 (0)	21 (19.6)	41 (11.5)
Village/Voluntary Health Worker	10 (13.9)	10 (14.5)	1 (2.8)	9 (12.2)	1 (0.9)	31 (8.7)
Religious Leader	3 (4.2)	4 (5.8)	3 (8.3)	4 (5.4)	4 (3.7)	18 (5)
Patent Medicine Vendors/Chemist	4 (5.6)	0 (0)	4 (11.1)	7 (9.5)	0 (0)	15 (4.2)
Traditional Birth Attendant	0 (0)	4 (5.8)	2 (5.6)	6 (8.1)	2 (1.9)	14 (3.9)
Others	3 (4.2)	2 (2.9)	2 (5.6)	0 (0)	8 (7.5)	15 (4.2)
Place referred to for HIV test						
General Hospital	48 (66.7)	20 (29.0)	8 (22.2)	6 (8.1)	53 (49.5)	135 (37.7)
Primary Health Centre	12 (16.7)	26 (37.7)	10 (27.8)	32 (43.2)	22 (20.6)	102 (28.5)
Primary Health Clinic	3 (4.2)	4 (5.8)	8 (22.2)	26 (35.1)	18 (16.8)	59 (16.5)
Health post	2 (2.8)	7 (10.1)	0 (0.0)	2 (2.7)	5 (4.7)	16 (4.5)
Federal Medical Centre	2 (2.8)	0 (0.0)	7 (19.4)	6 (8.1)	0 (0.0)	15 (4.2)
Mission House	0 (0.0)	8 (11.6)	0 (0.0)	1 (1.4)	2 (1.9)	11 (3.1)
Private hospital/Clinic	3 (4.2)	0 (0.0)	0 (0.0)	0 (0.0)	7 (6.5)	10 (2.8)
Others	2 (2.8)	1 (1.5)	1 (2.8)	0 (0.0)	0 (0.0)	4 (1.1)
Non-Governmental Organisation	0 (0.0)	2 (2.9)	1 (2.8)	0 (0.0)	0 (0.0)	3 (3.1)
Other public sector facility	0 (0.0)	1 (1.5)	1 (2.8)	0 (0.0)	0 (0.0)	2 (0.6)
Family Planning Clinic	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	0 (0.0)	1 (0.3)
Did you go for the test?						
Yes	69 (95.8)	63 (91.3)	32 (88.9)	66 (89.2)	101 (94.4)	331 (92.5)
No	3 (4.2)	6 (8.7)	4 (11.1)	8 (10.8)	6 (5.6)	27 (7.5)
Why didn't you go for the test?						
Not necessary	1 (33.3)	4 (66.7)	3 (75.0)	3 (37.5)	2 (33.3)	13 (48.2)
Cost too much	0 (0.0)	2 (33.3)	2 (50.0)	3 (37.5)	3 (50.0)	10 (37.0)
Too far/no transportation	0 (0.0)	2 (33.3)	0 (0.0)	2 (25.0)	1 (16.7)	5 (18.5)

Husband /family did not allow	1 (33.3)	0 (0.0)	0 (0.0)	2 (25.0)	0 (0.0)	3 (11.1)
Others	1 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)	1 (16.7)	2 (7.4)
My religion does not allow it	0 (0.0)	0 (0.0)	0 (0.0)	1 (12.5)	0 (0.0)	1 (3.7)
Afraid of possible outcome of test	0 (0.0)	0 (0.0)	0 (0.0)	1 (12.5)	0 (0.0)	1 (3.7)
Did the person provide any form of assistance for you to go for the test?						
Yes	38 (55.1)	47 (74.6)	14 (43.8)	25 (37.9)	62 (61.4)	186 (56.2)
No	31 (44.9)	16 (25.4)	18 (56.3)	41 (62.1)	39 (38.6)	145 (43.8)
What form of assistance did the person provide for you?						
Provided/Paid for transportation	27 (71.1)	42 (89.4)	6 (42.9)	3 (12.0)	47 (75.8)	125 (67.2)
Accompanied you to the place	10 (26.3)	40 (85.1)	9 (64.3)	21 (84.0)	18 (29.0)	98 (52.7)
Others	5 (13.2)	1 (2.1)	0 (0.0)	1 (4.0)	3 (4.8)	10 (5.4)

Table 9 Exposure to of children 0 – 14 years to community based referral for HTS

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	1173 (%)	1340 (%)	1143 (%)	1263 (%)	1286 (%)	6205 (%)
Child referred in last one year to a health facility for HIV screening						
Yes	39 (3.3)	36 (2.7)	30 (2.6)	21 (1.7)	129 (10.0)	255 (4.1)
No	1134 (96.7)	1304 (97.3)	1113 (97.4)	1242 (98.3)	1157 (90.0)	5950 (95.9)
Who counselled or referred child						
Patent Medicine Vendors/Chemist	7 (17.9)	0 (0)	6 (20)	3 (14.3)	0 (0)	16 (6.3)
Traditional Birth Attendant	0 (0)	0 (0)	0 (0)	1 (4.8)	0 (0)	1 (0.4)
Village/Voluntary Health Worker	3 (7.7)	12 (33.3)	0 (0)	1 (4.8)	2 (1.6)	18 (7.1)
Facility Based Health Worker	7 (17.9)	5 (13.9)	2 (6.7)	13 (61.9)	43 (33.3)	70 (27.5)
Religious Leader	0 (0)	9 (25)	1 (3.3)	3 (14.3)	4 (3.1)	17 (6.7)
Relative	1 (2.6)	5 (13.9)	5 (16.7)	0 (0)	16 (12.4)	27 (10.6)
Father of child	21 (53.8)	5 (13.9)	7 (23.3)	0 (0)	59 (45.7)	92 (36.1)
Others	0 (0)	0 (0)	9 (30)	0 (0)	5 (3.9)	14 (5.5)
Where referred						
General Hospital	33 (84.6)	7 (19.4)	8 (26.7)	1 (4.8)	51 (39.5)	100 (39.2)
Primary Health Centre	5 (12.8)	10 (27.8)	8 (26.7)	10 (47.6)	19 (14.7)	52 (20.3)
Primary Health Clinic	0 (0.0)	2 (5.6)	2 (6.7)	3 (14.2)	24 (19.6)	31 (12.2)
Health post	0 (0.0)	0 (0.0)	4 (13.3)	1 (4.8)	10 (7.8)	15 (5.9)
Private hospital/Clinic	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	13 (10.1)	14 (5.5)

Mission House	1 (2.6)	4 (11.1)	0 (0.0)	0 (0.0)	7 (5.4)	12 (4.7)
Non-Governmental Organisation	0 (0.0)	8 (22.2)	0 (0.0)	1 (4.8)	0 (0.0)	9 (3.4)
Federal Medical Centre	0 (0.0)	1 (2.8)	5 (16.6)	0 (0.0)	1 (0.8)	7 (2.8)
Other public sector facility	0 (0.0)	4 (11.1)	2 (6.7)	0 (0.0)	0 (0.0)	6 (2.4)
Field Worker	0 (0.0)	0 (0.0)	0 (0.0)	5 (23.8)	1 (0.8)	6 (2.4)
Outreach /Mobile Clinic	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.8)	1 (0.4)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (1.6)	2 (0.8)
Did test						
Yes	35 (89.7)	32 (88.9)	27 (90.0)	18 (85.7)	121 (93.8)	233 (91.4)
No	4 (10.3)	4 (11.1)	3 (10.0)	3 (14.3)	8 (6.2)	22 (8.6)
Why test was not done						
Others	2 (50.0)	0 (0.0)	1 (33.3)	1 (33.3)	0 (0.0)	4 (18.2)
Afraid of possible outcome of test	0 (0.0)	2 (50.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (9.1)
Cost too much	0 (0.0)	0 (0.0)	0 (0.0)	1 (33.3)	0 (0.0)	1 (4.6)
Too far/no transportation	0 (0.0)	0 (0.0)	0 (0.0)	1 (33.3)	0 (0.0)	1 (4.6)
Not necessary	2 (50.0)	3 (75.0)	2 (66.7)	1 (33.3)	8 (100.0)	16 (72.7)
Assistance provided						
Yes	31 (88.6)	16 (50.0)	17 (63.0)	5 (27.8)	86 (71.1)	155 (66.5)
No	4 (11.4)	16 (50.0)	10 (37.0)	13 (72.2)	35 (28.9)	78 (33.5)
Nature of assistance provided						
Provided/Paid for transportation	28 (90.3)	15 (93.8)	8 (47.1)	0 (0.0)	49 (57.0)	100 (64.5)
Accompanied you to the place	10 (32.3)	14 (87.5)	9 (52.9)	5 (100.0)	51 (59.3)	89 (57.4)
Others	1 (3.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.2)	2 (1.3)

Table 10 Uptake of HIV services by mothers

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
Ever had an HIV test						
Yes	366 (86.1)	322 (80.9)	293 (75.7)	329 (77.8)	341 (82.6)	1651 (80.7)
No	59 (13.9)	76 (19.1)	94 (24.3)	94 (22.2)	72 (17.4)	395 (19.3)
Reasons for not having HIV test						
Not necessary	31 (52.5)	64 (84.2)	80 (85.1)	63 (67.0)	23 (31.9)	261 (66.1)
Cost too much	1 (1.7)	11 (14.5)	12 (12.8)	4 (4.3)	44 (61.1)	72 (18.2)
Afraid of possible outcome of test	1 (1.7)	4 (5.3)	5 (5.3)	21 (22.3)	6 (8.3)	37 (9.4)
Husband /family did not allow	9 (15.3)	19 (25.0)	4 (4.3)	4 (4.3)	1 (1.4)	37 (9.4)
Too far/no transportation	3 (5.1)	4 (5.3)	3 (3.2)	9 (9.6)	15 (20.8)	34 (8.6)

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
My religion does not allow it	0 (0.0)	0 (0.0)	0 (0.0)	3(3.2)	1 (1.4)	4 (1.0)
Facility not opened	0 (0.0)	1 (1.3)	0 (0.0)	0 (0.0)	1 (1.4)	2 (0.5)
Others	20 (33.9)	5 (6.6)	5 (5.3)	3 (3.2)	10 (13.9)	43 (10.9)
Had HIV test during last pregnancy						
Yes	336 (92.6)	276 (85.7)	277 (94.5)	240 (73.0)	330 (96.8)	1462 (88.5)
No	27 (7.4)	46 (14.3)	16 (5.5)	89 (27.0)	11 (3.2)	189 (11.5)
Place						
General Hospital	205 (60.5)	82 (29.7)	48 (17.3)	20 (8.3)	161 (48.8)	516 (35.3)
Primary Health Centre	86 (25.4)	108 (39.1)	66 (23.8)	95 (39.6)	50 (15.2)	405 (27.7)
Primary Health Clinic	12 (3.5)	21 (7.6)	70 (25.3)	93 (38.8)	66 (20.0)	262 (17.9)
Private hospital/Clinic	12 (3.5)	9 (3.3)	21 (7.6)	8 (3.3)	22 (6.7)	72 (4.9)
Federal Medical Centre	4 (1.2)	1 (0.4)	58 (20.9)	8 (3.3)	1 (0.3)	72 (4.9)
Mission House	3 (0.9)	35 (12.7)	0 (0.0)	2 (0.8)	13 (3.9)	53 (3.6)
Health post	12 (3.5)	7 (2.5)	6 (2.2)	7 (2.9)	12 (3.6)	44 (3.0)
Other public sector facility	1 (0.3)	12 (4.3)	5 (1.8)	0 (0.0)	0 (0.0)	18 (1.2)
Outreach /Mobile Clinic	1 (0.3)	0 (0.0)	1 (0.4)	5 (2.1)	1 (0.3)	8 (0.6)
Field Worker	3 (0.9)	1 (0.4)	0 (0.0)	1 (0.4)	3 (0.9)	8 (0.6)
Family Planning Clinic	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)	0 (0.0)	1 (0.1)
Traditional Birth Attendants	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.3)	1 (0.1)
Others	0 (0.0)	0 (0.0)	2 (0.7)	0 (0.0)	0 (0.0)	2 (0.1)
Reason for not doing test						
Not necessary	16 (59.3)	36 (78.3)	8 (50.0)	70 (78.7)	6 (54.6)	136 (72.0)
Cost too much	6 (22.2)	4 (8.7)	0 (0.0)	5 (5.6)	2 (18.2)	17 (9.0)
Husband /family did not allow	7 (25.9)	3 (6.5)	1 (6.3)	3 (3.4)	0 (0.0)	14 (7.4)
Too far/no transportation	2 (7.4)	2 (4.4)	0 (0.0)	8 (9.0)	1 (9.1)	13 (6.9)
Afraid of possible outcome of test	3 (11.1)	1 (2.2)	0 (0.0)	0 (0.0)	0 (0.0)	4 (2.1)
No female provider at facility	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.1)	0 (0.0)	1 (0.5)
Others	6 (22.2)	8 (17.4)	8 (50.0)	5 (5.6)	3 (27.3)	30 (15.9)
Received information (pre-test counselling)						
Yes	297 (87.6)	225 (81.5)	222 (80.1)	217 (90.4)	239 (72.4)	1200 (82.1)
No	42 (12.4)	51 (18.5)	55 (19.9)	23 (9.6)	91 (27.6)	262 (17.9)
Received test result						
Yes	320 (94.4)	252 (91.3)	258 (93.1)	223 (92.9)	294 (89.1)	1347 (92.1)
No	19 (5.6)	24 (8.7)	19 (6.9)	17 (7.1)	36 (10.9)	115 (7.9)

	Local Government Areas					Total
	Bali 425 (%)	Gashaka 398 (%)	Jalingo 387 (%)	Lau 423 (%)	Zing 413 (%)	
Reason for not receiving test result						2046 (%)
I did not return to collect my results	0 (0.0)	9 (37.5)	7 (36.8)	8 (47.1)	4 (11.1)	28 (24.4)
It was not necessary	3 (15.8)	15 (62.5)	4 (21.1)	3 (17.7)	0 (0.0)	25 (21.7)
I didn't know where to get the results	0 (0.0)	0 (0.0)	13 (68.4)	4 (23.5)	0 (0.0)	17 (14.8)
I was afraid	0 (0.0)	8 (33.3)	1 (5.3)	1 (5.9)	0 (0.0)	10 (8.7)
Others	16 (84.2)	4 (16.7)	2 (10.5)	2 (11.8)	32 (88.9)	56 (48.7)
Received post-test counselling						
Yes	290 (90.6)	223 (88.5)	234 (90.7)	212 (95.1)	197 (67.0)	1156 (85.8)
No	30 (9.4)	29 (11.5)	24 (9.3)	11 (4.9)	97 (33.0)	191 (14.2)
Test result						
Negative	317 (99.1)	249 (98.8)	255 (98.8)	219 (98.2)	288 (98.0)	1328 (98.6)
Positive	2 (0.6)	1 (0.4)	2 (0.8)	4 (1.8)	3 (1.0)	12 (0.9)
Don't know	1 (0.3)	2 (0.8)	1 (0.4)	0 (0.0)	3 (1.0)	7 (0.5)
Started receiving treatment to prevent mother-to-child transmission						
Yes	1 (50.0)	1 (100.0)	2 (100.0)	4 (100.0)	3 (100.0)	11 (91.7)
No	1 (50.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (8.3)
Initiated on ART						
Yes	1 (100.0)	1 (100.0)	2 (100.0)	4 (100.0)	3 (100.0)	12 (100.0)
No	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Reasons for not commencing ART						
Not necessary	0 (0.0)	2 (100.0)	0 (0.0)	0 (0.0)	2 (66.7)	4 (57.1)
Others	1 (100.0)	0 (0.0)	1 (100.0)	0 (0.0)	1 (33.3)	3 (42.9)
Currently on ART						
Yes	2 (100.0)	1 (100.0)	2 (100.0)	4 (100.0)	2 (66.7)	11 (91.7)
No	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (33.3)	1 (8.3)
Last child tested for HIV						
Yes	30 (8.9)	18 (6.5)	15 (5.4)	11 (4.6)	56 (17.0)	130 (8.9)
No	309 (91.1)	258 (93.5)	262 (94.6)	229 (95.4)	274 (83.0)	1332 (91.1)
Result of test						
Negative	30 (100.0)	18 (100.0)	15 (100.0)	9 (81.8)	55 (98.2)	127 (97.7)
Positive	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.8)	1 (0.8)
Don't know	0 (0.0)	0 (0.0)	0 (0.0)	2 (18.2)	0 (0.0)	2 (1.5)

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	425 (%)	398 (%)	387 (%)	423 (%)	413 (%)	2046 (%)
Child commenced on medication						
Yes	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	1 (100.0)
No	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Child currently on medication						
Yes	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	1 (100.0)
No	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Table 11 Uptake of HIV services for children 0 – 14 years

	Local Government Areas					Total
	Bali	Gashaka	Jalingo	Lau	Zing	
	1173 (%)	1340 (%)	1143 (%)	1263 (%)	1286 (%)	6205 (%)
Child had HIV test last one year						
Yes	61 (5.2)	60 (4.5)	57 (5.0)	47 (3.7)	162 (12.6)	387 (6.2)
No	1112 (94.8)	1280 (95.5)	1086 (95.0)	1216 (96.3)	1124 (87.4)	5818 (93.8)
Why child was not tested						
Not necessary	955 (85.9)	1001 (78.2)	986 (90.8)	1105 (90.9)	870 (77.4)	4917 (84.5)
Cost too much	14 (1.3)	182 (14.2)	28 (2.6)	11 (0.9)	246 (21.9)	481 (8.3)
Husband /family did not allow	78 (7.0)	216 (16.9)	47 (4.3)	26 (2.1)	21 (1.9)	388 (6.7)
Too far/no transportation	14 (1.3)	53 (4.1)	6 (0.6)	55 (4.5)	81 (7.2)	209 (3.6)
Afraid of possible outcome of test	0 (0.0)	86 (6.7)	3 (0.3)	18 (1.5)	3 (0.3)	110 (1.9)
My religion does not allow it	2 (0.2)	2 (0.2)	1 (0.1)	4 (0.3)	4 (0.4)	13 (0.2)
Facility not opened	0 (0.0)	3 (0.2)	1 (0.1)	2 (0.2)	0 (0.0)	6 (0.1)
No female provider at facility	0 (0.0)	2 (0.2)	1 (0.1)	0 (0.0)	0 (0.0)	3 (0.1)
Others	96 (8.6)	37 (2.9)	72 (6.6)	14 (1.2)	83 (7.4)	302 (5.2)
Months ago since child was tested						
1 – 4	29 (47.5)	40 (66.7)	28 (49.1)	12 (25.5)	68 (42.0)	177 (45.7)
5 – 8	17 (27.9)	7 (11.7)	15 (26.3)	20 (42.6)	60 (37.0)	119 (30.8)
9 – 11	15 (24.6)	13 (21.6)	14 (24.6)	15 (31.9)	34 (21.0)	91 (23.5)
Had pre-test counselling						
Yes	60 (98.4)	55 (91.7)	54 (94.7)	45 (95.7)	151 (93.2)	365 (94.3)
No	1 (1.6)	5 (8.3)	3 (5.3)	2 (4.3)	11 (6.8)	22 (5.7)
Received test result						
Yes	61 (100.0)	59 (98.3)	57 (100.0)	45 (95.7)	148 (91.4)	370 (95.6)

No	0 (0.0)	1 (1.7)	0 (0.0)	2 (4.3)	14 (8.6)	17 (4.4)
Why test result was not received						
I did not return to collect my results	0 (0.0)	1 (100.0)	0 (0.0)	2 (100.0)	1 (7.1)	4 (23.5)
I was afraid	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.9)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	13 (92.7)	13 (76.5)
Received post-test counselling						
Yes	59 (96.7)	54 (91.5)	55 (96.5)	42 (93.3)	132 (89.2)	342 (92.4)
No	2 (3.3)	5 (8.5)	2 (3.5)	3 (6.7)	16 (10.8)	28 (7.6)
Test result						
Negative	61 (100.0)	59 (100.0)	57 (100.0)	45 (100.0)	147 (99.3)	369 (99.7)
Positive	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.7)	1 (0.3)
Commenced of ART						
Yes	-	-	-	-	1 (100.0)	1 (100.0)
No	-	-	-	-	-	-
Currently/still on ART						
Yes	-	-	-	-	1 (100.0)	1 (100.0)
No	-	-	-	-	-	-

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