



# Malawi

**Service Provision Assessment Survey (MSPA)  
2013-14**

**Key Findings**

This report presents key findings of the 2013-2014 Malawi Service Provision Assessment Survey (2013-14 MSPA), which was implemented by the Malawi Ministry of Health. ICF International provided technical assistance. The 2013-2014 MSPA is part of the worldwide MEASURE DHS project which assists countries in the collection of data to monitor and evaluate population, health, and nutrition programmes. The survey was funded by the United States Agency for International Development (USAID).

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Information about The DHS Program can be obtained from ICF International, 530 Gaither Road, Suite 500, Rockville, MD 20850 USA. Telephone: 301.407.6500; Fax: 301.407.6501; E-mail: [reports@DHSprogram.com](mailto:reports@DHSprogram.com); Internet: [www.DHSprogram.com](http://www.DHSprogram.com).

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*Icons courtesy of The Noun Project: Baby, Baby Care by Saeed Farrahi; Childbirth by Luis Prado; Mosquito by Monika Ciapala; Health by Christopher Holm-Hansen; Lungs by Brennan Novak; Stethoscope by Olivier Guin; Gloves by TNS; and Microscope by Stuart McCoy*

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# INTRODUCTION

The 2013-14 Malawi Service Provision Assessment (MSPA) is the first comprehensive assessment of health facilities in Malawi. The assessment was designed to collect information from all functioning health facilities in the country on the delivery of health care services and to examine the preparedness of facilities to provide quality health services in child health, family planning, maternal and newborn care, HIV, sexually transmitted infections, non-communicable diseases, and tuberculosis.

The 2013-14 MSPA used four types of questionnaires:

- Facility inventory questionnaire
- Health provider questionnaire
- Observation protocol of consultations and examination of sick children, antenatal care, family planning, and normal deliveries
- Client exit interview questionnaires for women attending antenatal care, family planning clients, and caretakers of sick children whose consultations were observed by interviewers

The 2013-14 MSPA is a census of all formal sector health facilities in Malawi. Of the 1,060 formal health facilities in Malawi that were visited during the assessment, 83 facilities were permanently closed, unreachable, duplicates of other facilities, or refused to participate. Data were successfully collected from a total of 977 facilities. The results of the assessment are presented by facility type, managing authority, and for the three regions in Malawi.

This report presents the key findings of the 2013-14 MSPA. To put these results in context, it also presents the results of the 2010 Malawi Demographic and Health Survey (MDHS) which interviewed more than 23,000 women and 7,000 men. Also included are results for the 2012 Malawi Malaria Indicator Survey (MMIS) which interviewed 3,400 households and 2,900 women. The results of the 2010 MDHS and 2012 MMIS are presented in blue boxes.

## Number of Facilities Surveyed in the 2013-14 MSPA by Background Characteristics:

### Facility Type:

- Hospital: N=113
- Health centre: N=466
- Dispensary: N=48
- Clinic: N=327
- Health post: N=23

### Managing Authority:

- Government: N=472
- CHAM: N=163
- Private: N=214
- NGO: N=58
- Company: N=69

### Region:

- Northern: N=165
- Central: N=362
- Southern: N=450

## MALAWI



# Understanding the 2013-14 Malawi SPA

This legend provides iconic description of the health service areas, if observations or client exit interviews were conducted, and number of facilities offering the type of service.

- ★ Observations of Consultations
- Client Exit Interview
- N = Number of Facilities Offering Service

## Child Health

★ ● Curative Care N=915	Child Growth Monitoring N=716	Child Vaccination N=688
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## Family Planning

★ ● Family Planning N=806
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## Maternal Health

★ ● Antenatal Care N=632	Prevention of mother-to-child-transmission N=579
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## Delivery and Newborn Care

★ ● Delivery and Newborn Care N=528	Caesarean Delivery N=69
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**All Health Facilities**  
**N=977**

## HIV/AIDS

HIV Testing and Counselling N=760	HIV Care and Support N=652	Antiretroviral Therapy N=656	Sexually Transmitted Infection Diagnosis or Treatment N=925
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## Malaria

Malaria Diagnosis or Treatment N=939
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## Non-communicable Diseases

Diabetes N=453	Cardiovascular Disease N=835	Chronic Respiratory Disease N=729
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## Tuberculosis

Tuberculosis Diagnosis or Treatment N=509
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This report is organized by service area, but the same basic topics are covered in each section. Use the icons below to identify the main results within each section.

 Availability of services, medication, supplies

 Guidelines and equipment for services

 Infection control

 Laboratory diagnostic capacity

 Training and supportive management

# HEALTH FACILITIES IN MALAWI

## Availability of Services

The availability of a basic package of health services and frequency of these services contribute to client utilisation of services at a health facility. However, if a facility does not offer all services, it should not be assumed that the facility is substandard. More than half of health care facilities (52%) offer all basic client services including curative care for sick children, child growth monitoring, child vaccination, any modern method of family planning (FP), antenatal care (ANC), and services for sexually-transmitted infections (STIs). The availability of all basic services is much higher in government facilities (81%) than in private facilities (8%). Availability of all basic client services is highest in Northern region (63%) and lowest in Southern region (49%).


Service availability varies by type of facility. For example, the availability of child curative care is higher in health centres (99%) than in health posts (45%). The availability of any modern method of family planning is highest in health centres (89%) and is lowest in hospitals (70%). Nearly all hospitals and health centres offer ANC services. More than 90% of health centres, hospitals, and clinics offer services for STIs. Health centres are most likely to offer all basic client services (84%).

## Basic Amenities

Many health facilities in Malawi lack basic client amenities. Nearly 4 in 10 facilities lack regular electricity. Almost two-thirds of facilities do not have a client latrine (63%). However, in the vast majority of facilities, consultations may take place with visual and auditory privacy (96%). In addition, 94% of facilities have an improved water source.

More than three-quarters of facilities have emergency transport (77%). The availability of emergency transport varies by type of facility, from 40% of health posts to 93% of hospitals.

## Infection Control

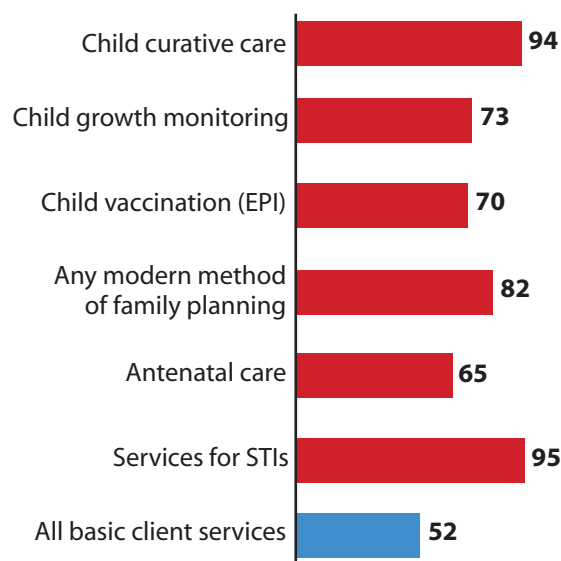
 Three-quarters of facilities have equipment sterilisation. However, only half of facilities have sterilization equipment and knowledge of processing time. Equipment and knowledge of processing time varies by type of facility, from a low of 9% in health posts to a high of 78% in hospitals.

### MSPA Definition:

*Available:* Only observed items are classified as available. Items that are reported as being available but are not observed or seen by the interviewers are not considered available.

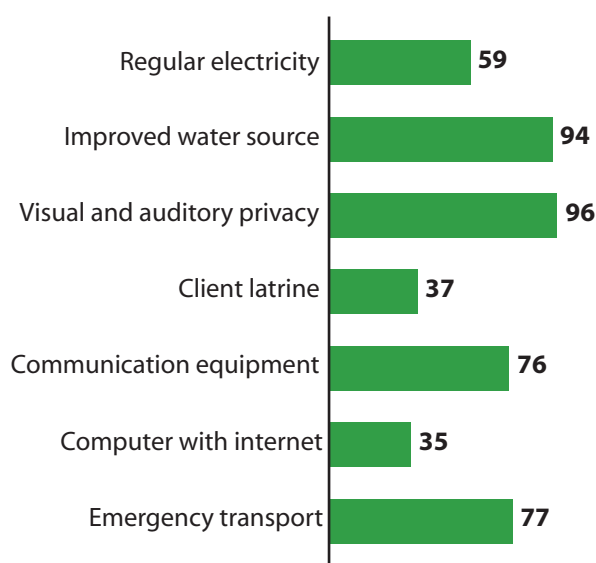
### Availability of Basic Client Services

Among all facilities (N=977), percent offering indicated basic client services



### Availability of Basic Amenities for Client Services

Among all facilities, percent with indicated amenities considered basic for quality services (N=977)





## Availability of Child Health Services

The availability of all three basic child health services is higher in health centres (96%) than in clinics (22%). Among managing authorities, more than 90% of CHAM and government facilities offer all three basic child health services compared to 14% of private and 31% of NGO facilities. Most health facilities offer outpatient curative care for sick children, 73% provide child growth monitoring services, and 70% offer child vaccination services. Two-thirds of health facilities offer all three basic child health services.

## Guidelines and Equipment for Child Curative Care Services

Among health facilities offering outpatient curative care for sick children (N=915), 96% provide these services five days or more a week. Guidelines were not available in most facilities. Three-quarters of facilities did not have visible Integrated Management of Childhood Illness (IMCI) guidelines and 70% lacked growth monitoring guidelines.

## Management Practices and Training

Of 2,242 interviewed providers of child health services, only two-thirds received any in-service training in IMCI and growth monitoring during the two years before the survey. Nearly 8 in 10 were supervised in the six months before the survey.

Among child health providers, in-service training within the last two years covered a range of topics including malaria diagnosis (31%), malaria treatment (20%), expanded programme on immunisation (EPI) and cold chain (18%), and diarrhoea diagnosis or treatment (18%).

## Infection Control

The majority of facilities offering outpatient curative care services for sick children have infection control items. Child health facilities are more likely to have latex gloves (89%). Fewer have soap and running water or else alcohol-based hand disinfectant (64%). Eighty percent of hospitals and clinics have soap and running water or else alcohol-based disinfectant.

## Laboratory Diagnostic Capacity



Among facilities offering outpatient curative care for sick children (N=915), 21% have the ability to measure haemoglobin to assess anaemia, 89% can diagnose malaria, and 10% have the capacity to do a stool microscopy. Not surprisingly, hospitals have the highest diagnostic capacity in haemoglobin (85%), malaria (99%), and stool microscopy (58%) compared to all other facility types. CHAM-managed facilities have more laboratory diagnostic capacity than other managing authorities.

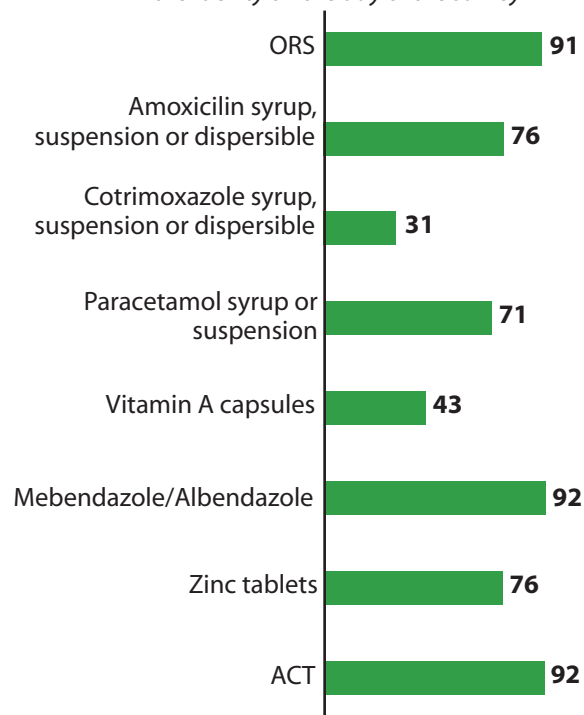
## Availability of Essential Medicines



More than 9 in 10 health facilities offering outpatient curative care services for sick children have artemisin combination therapy (ACT) (92%) to treat malaria, Mebendazole/Albendazole (92%) for worm infestation, and oral rehydration salts (ORS) (91%) for dehydration. More than 70% of facilities have amoxicillin (76%), zinc tablets (76%), and paracetamol (71%). Only 43% of facilities have vitamin A capsules and less than one-third have cotrimoxazole.

### Availability of Essential Medicines and Commodities

Among facilities offering outpatient curative care services for sick children (N=915), percent where essential medicines were observed to be available in the facility on the day of the survey



## Assessment, Examination, and Treatment of Sick Children



A total of 3,329 sick child consultations were observed. Providers checked for all three major danger signs in only 3% of consultations: ability to eat or drink anything (28%), vomiting (35%), and convulsions (9%). Providers assessed all three main symptoms in one-quarter of observed consultations: fever (77%), cough/difficulty breathing (74%), and diarrhoea (39%). Various aspects of the physical examinations were also missing – only 10% of sick children were assessed for dehydration. Only 16% of sick children had their respiratory rate assessed and 44% of sick children were examined for anaemia.

Caretakers of sick children must be informed how to take care of their children once they return home. Few providers in Malawi are advising caretakers how to increase fluids (7%), what symptoms require a return visit (11%), and why to continue feeding the child (12%).

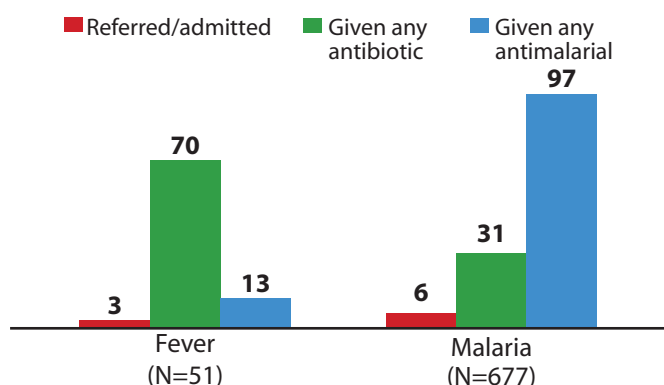
### Treatment by Diagnosis

The 2013-14 MSPA findings show that providers do not follow IMCI guidelines for diagnosis and treatment of specific illnesses. Children with a fever or history of fever should receive a fever-reducing medication and not a dose of antimalarial. Thirteen percent of children with fever were given an antimalarial. While 97% of children who were diagnosed with malaria received an antimalarial, only two-thirds received ACT and 31% received an antibiotic.

Almost all children with pneumonia or severe respiratory illnesses were given antibiotics, as were 89% of children with cough or other upper respiratory problems. These findings may indicate overuse of antibiotics, which can result in antibiotic resistance.

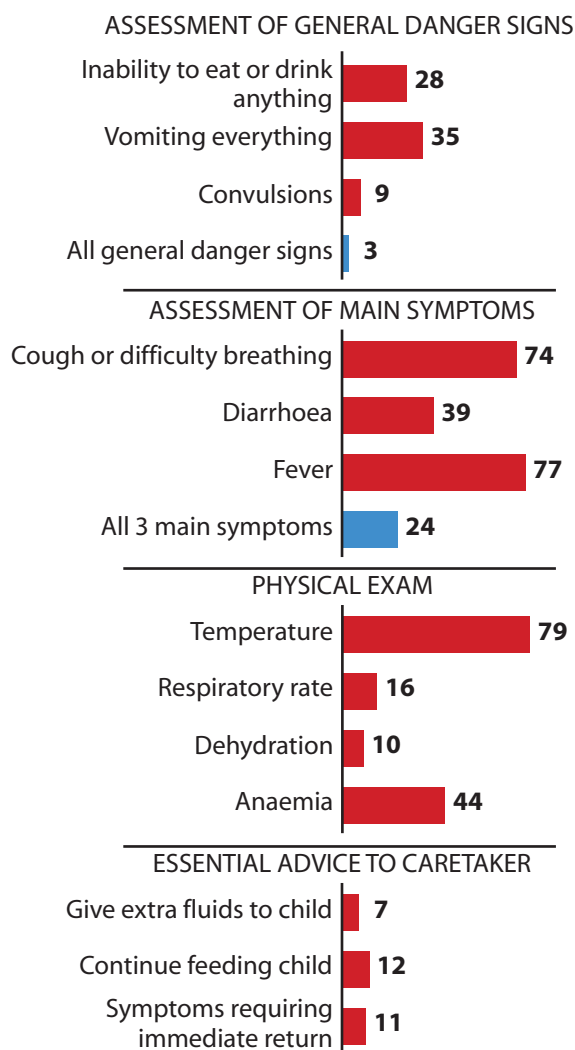
#### Treatment of Children with Fever or Malaria

Among observed children, percent diagnosed with illness who received assessment, examination, and/or treatment



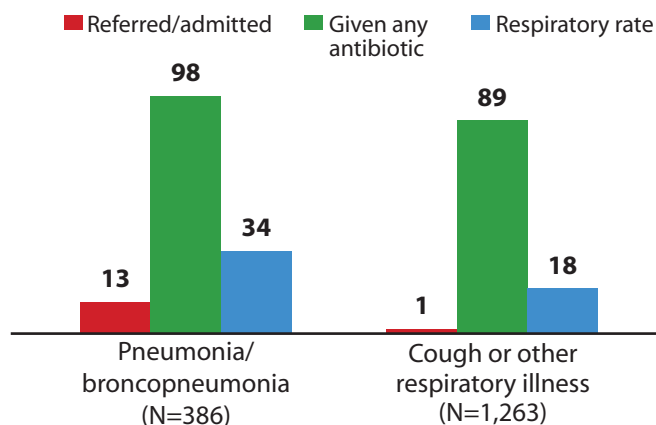
#### Observed Assessments and Examinations

Percent among observed consultations with sick children (N=3,329) that include:



#### Treatment of Children with Respiratory Illness

Among observed children, percent diagnosed with illness who received assessment, examination, and/or treatment





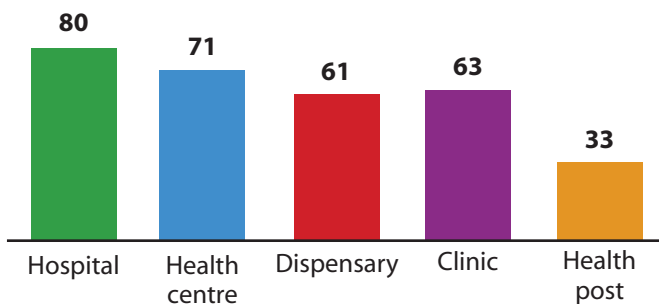
## Availability of Child Vaccination Services

The 2013-14 MSPA observed the availability of unexpired vaccines among facilities that offer child vaccination services and routinely store vaccines at the facility (N=607). Overall, 89% of facilities had DPT/pentavalent vaccine available the day of the survey, 83% had oral polio vaccine, 91% had measles vaccine, and 88% had BCG. Among facilities offering child vaccination services and storing vaccines, 70% of facilities had all basic child vaccines (DPT/pentavalent, polio, measles, BCG, pneumococcal conjugate, and rotavirus) available the day of the survey. More than 60% of all facilities except health posts had all basic vaccines in stock. Among managing authority, nearly 70% of government, CHAM, private, and company facilities had all basic child vaccines the day of the survey.

About 40% of health facilities offer most vaccines five or more days a week. More than 60% of hospitals offer all vaccines five or more days a week.

### Availability of Vaccines by Facility Type

Among facilities offering child vaccination services and routinely store vaccines at facility (N=607), percent that have all basic\* child unexpired vaccines on the day of the survey



\*All basic child vaccines: at least one unexpired vial or ampoule each of DPT/pentavalent, oral polio, measles, BCG, pneumococcal conjugate, and rotavirus vaccine with relevant diluents available.



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## Guidelines and Equipment for Vaccination Services

Among all health facilities offering child vaccination services (N=688), two-thirds have a vaccine refrigerator. About 90% of facilities have syringes and needles (88%), sharps containers (90%), and vaccine carrier with ice pack (95%).

## Infection Control

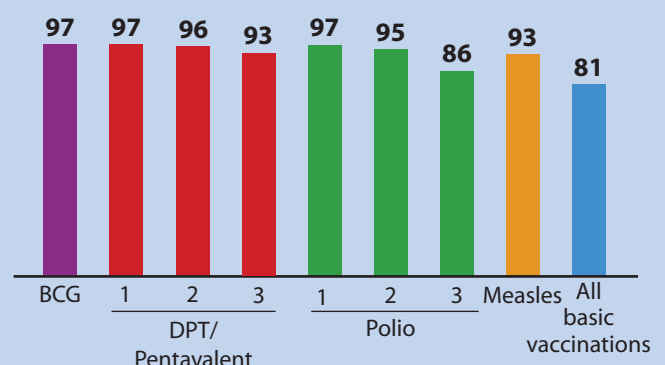
Among facilities offering child vaccination services (N=688), the availability of items for infection control varies. More than half of facilities have latex gloves (57%). Only 35% of facilities have soap and running water or else alcohol-based disinfectant.

## Vaccination Coverage: 2010 MDHS Results

According to 2010 Malawi Demographic and Health Survey (MDHS), 81% of children age 12-23 months received all basic vaccinations (one dose each of BCG and measles, and three doses each of polio and DPT/pentavalent). Vaccination coverage varies by district, ranging from only 69% of children fully vaccinated in Lilongwe to 92% in Chiradzulu and Mwanza. Vaccination coverage has gradually increased over time, from 70% in the 2000 MDHS and 64% in the 2004 MDHS.

### Vaccination Coverage

Percent of children age 12-23 months vaccinated







## MSPA Definitions:

*Provided:* Facility reports that it stocks the method and makes it available to clients when they visit the facility. These clients can obtain the method without leaving the facility.

*Offer:* Facility provides the method, prescribes the method for clients to obtain elsewhere, or counsels clients on the method without actually making the method available to the client in the facility.

## Availability of Family Planning (FP) Services

Overall, 82% of all health facilities offer any modern method of FP such as the pill, Progestin-only injectables, implants, intrauterine contraceptive devices (IUCD), male or female condoms, Cycle Beads, female or male sterilisation, diaphragm, or spermicides. The availability of any modern method of FP is higher in government facilities than in CHAM facilities (95% vs. 57%). Of the health facilities offering any FP services (N=806), nearly two-thirds offer any FP services five or more days a week.

## FP Methods Provided

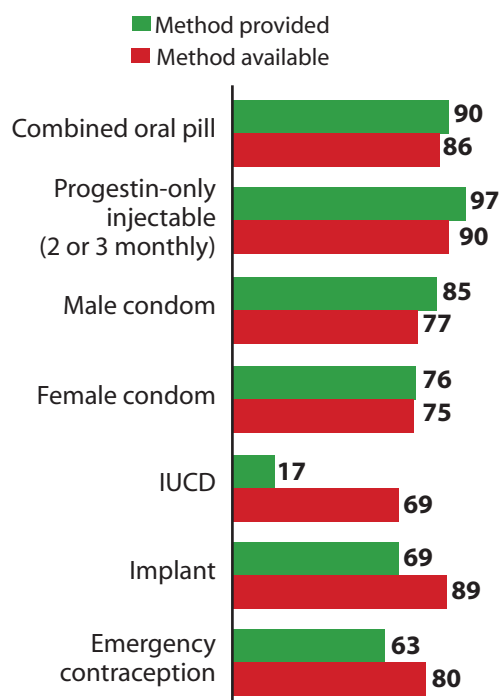
The majority of institutions offering any FP method (N=806) provide Progestin-only injectables (97%), combined oral contraceptive pills (90%), and the male condom (85%). The IUCD (17%), tubal ligation (12%), Cycle Beads (9%), and vasectomy (4%) are the least provided FP methods. Provision of IUCD and implant requires a higher level of skill and more developed infrastructure that may not be available.

## Availability of FP Commodities

While many facilities report providing FP methods, not all had the methods available on the day of the survey. According to the 2010 MDHS, injectables and the pill are among the most widely used methods. Injectables and pills are among the most widely available methods in facilities. Among the facilities that provide FP methods, more than 80% had the following FP commodities available: Progestin-only injectables (90%), implants (89%), combined oral contraceptive pills (86%), and emergency contraception (80%). Less than half (46%) of facilities had every method available on the day of the survey.

### Availability of Provided Family Planning Commodities

Among facilities offering any family planning services, percent of facilities that provide FP methods and had FP methods available on the day of the survey

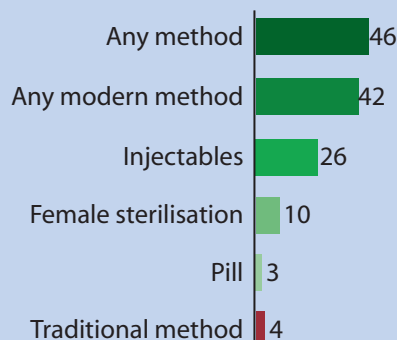


## Family Planning: 2010 MDHS Results

According to the 2010 MDHS, Malawian women have an average of 5.7 children, a slight decrease from 6.0 children in 2004. More than 4 in 10 married women (42%) use a modern method of contraception. Modern contraceptive prevalence among married women dramatically increased from 28% in 2004 to 42% in 2010. The most commonly used modern methods are injectables (26%), female sterilisation (10%) and the pill (3%). Public sources, such as government hospitals and government health centres provide contraceptives to nearly three-quarters of users.

### Family Planning

Percent of married women age 15–49 using family planning





## Observations of FP Consultations



The MSPA observed FP consultations to assess how closely providers adhered to internationally recognised standards for quality service provision.

Interviewers observed 1,499 FP consultations; 27% of the consultations were new FP clients and 73% of observed consultations were continuing FP clients.

According to the MSPA, FP counselling of new and continuing clients does not include all recommended elements, and providers are missing opportunities to screen for STIs and chronic illnesses. Among consultations with new clients (N=410), only 4% had all elements of reproductive history (age, pregnancy history, current pregnancy status, the desired timing for the next or desire for another child, breastfeeding status, and regularity of menstrual cycle) as part of their consultation. None of the new FP clients had all risk history (smoking, STI symptoms, and any chronic disease) assessed which is of major concern. Providers were most likely to weigh clients and measure blood pressure.

Most FP consultations with all female FP clients (N=1,499) included discussions of client concerns about her contraceptive method (75%); fewer included discussions about side effects (44%). Only 23% of consultations had any discussion related to STIs. Lack of privacy may account for this. Only 20% of consultations took place under conditions of privacy and confidentiality.

## Client Knowledge about Contraceptive Method

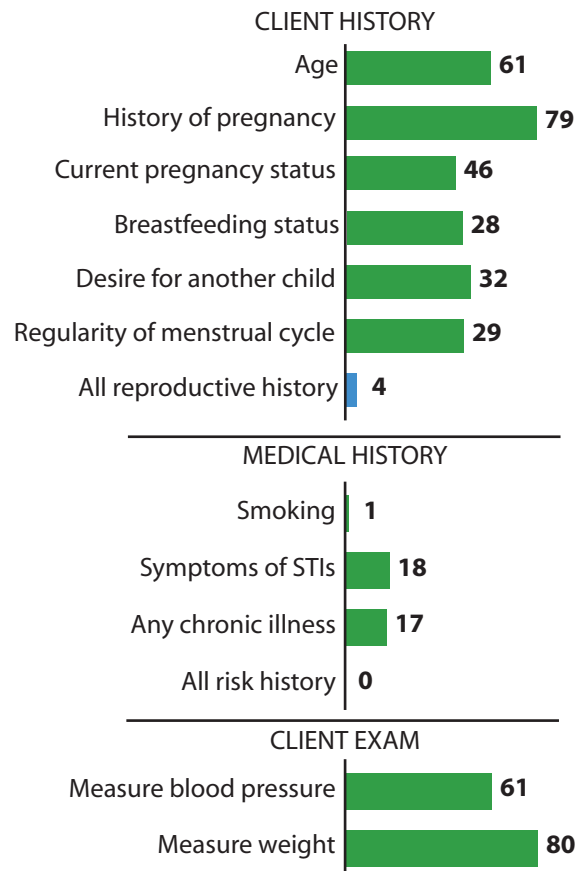


Observed FP clients participated in exit interviews to assess their knowledge about their method.


Nearly all clients who use the pill (96%) were able to correctly answer the question “How often do you take the pill?” Almost all Progestin-only injectable users but only 69% of monthly injectable users correctly answered the question “How long does the injection provides protection against pregnancy?”

## Observed Elements of Client History for First-visit Family Planning Clients


Percent of observed first-visit family planning clients (N=410)




## Infection Control

 Facilities are more likely to have a sharps container (90%) than other items. More than half of facilities have soap and running water or else alcohol-based hand disinfectant. Eighty-six percent of facilities have latex gloves.

## Guidelines and Basic Equipment for FP Services

 Key items for the provision of quality FP services are missing from many health facilities in Malawi. Only 28% of facilities have an examination lamp and 6% have a pelvic model for the IUCD. FP samples (88%) and an examination bed or table (87%) are widely available. More than half of facilities have guidelines on FP (57%) and nearly two-thirds have other FP visual aids (65%). Two-thirds of facilities have a blood pressure apparatus.

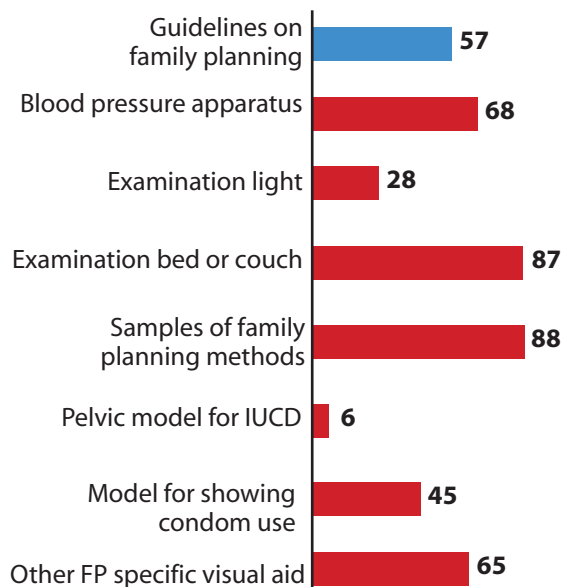
## Management Practices and Training

 The MSPA collected data on training and management of 1,492 FP service providers. One-third of FP providers received in-service training related to FP during the two years before the survey. More than three-quarters of FP personnel had personal supervision or technical support from a facility-based supervisor or visiting supervisor during the six months before the survey.

Among FP providers, in-service training within the last two years covered a range of topics including counselling on FP (25%), FP-related clinical issues (19%), insertion/removal of implant (18%), post-partum FP (17%), and insertion/removal of IUCD (12%). Although 12.9% of Malawian women age 15-49 are HIV-positive (2010 MDHS), only 1 in 5 FP providers have received any training in FP for HIV-positive clients.

### Guidelines and Basic Equipment for Family Planning Services

Among facilities offering any modern family planning methods (N=805), percent that have:




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## Availability of Antenatal Care (ANC)

Overall, 65% of all health facilities offer ANC services. Among the institutions that offer ANC services (N=632), 37% provide ANC services five or more days per week and 82% offer tetanus toxoid vaccinations every day ANC services are offered.

## Observations of ANC Consultations


 MSPA interviewers observed client-provider interactions of 2,068 ANC clients. Forty-two percent of observed clients were visiting for the first time in their pregnancy, while the other 58% were coming for a follow-up visit. For one-quarter of ANC clients, this was their first pregnancy.

ANC providers were not thorough in taking client history or providing routine tests. Although more than 75% of first-visit ANC clients were asked the date of their last menstrual period, age, and any prior pregnancy; only 12% were asked about medicines currently taken, and 7% had all elements of client history assessed. Less than 15% of first-visit ANC clients had a haemoglobin test (14%) or a urine protein or glucose test (9%), as recommended.

The components of the basic physical examination were performed in the majority of observed consultations for all ANC clients (N=2,068): 72% of pregnant women had their blood pressure measured, 92% were weighed, and fundal height was measured for 96% of pregnant women. Among preventive interventions, the provider gave or prescribed iron or folic acid tablets in 87% of consultations. In comparison, in only 29% of consultations did the provider administer or prescribe the tetanus toxoid vaccine.

ANC providers did not routinely inform women of symptoms related to pregnancy complications. Vaginal bleeding was discussed in only one-third of consultations. One in four consultations included discussion of headache or blurred vision as well as loss of, excessive, or normal fetal movement. Even fewer consultations, less than 20%, included discussion of swollen hands or face (17%); fever (14%); excessive tiredness, shortness of breath (7%); and cough or difficulty breathing for three weeks or longer (6%). For more than half of the observed consultations (53%) at least one risk symptom was discussed.

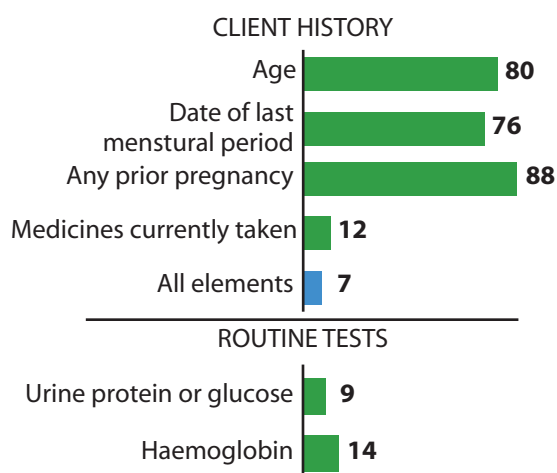
## ANC Client Exit Interviews

 Pregnant women attending ANC who were observed were also interviewed when they left the facility about the health education they received.


Six in ten pregnant women reported that the provider discussed or counselled on any pregnancy-related risk signs and symptoms. Nearly half of women (46%) reported that the provider discussed vaginal bleeding as dangerous and 15% reported that the provider discussed headaches or blurred vision. Nearly 4 in 10 pregnant women reported that no advice was given on recommended actions to take if warning signs occurred.

## Observed Consultations for First-visit ANC Clients


Percent of observed first-visit ANC clients (N=874)



## Availability of Medicines

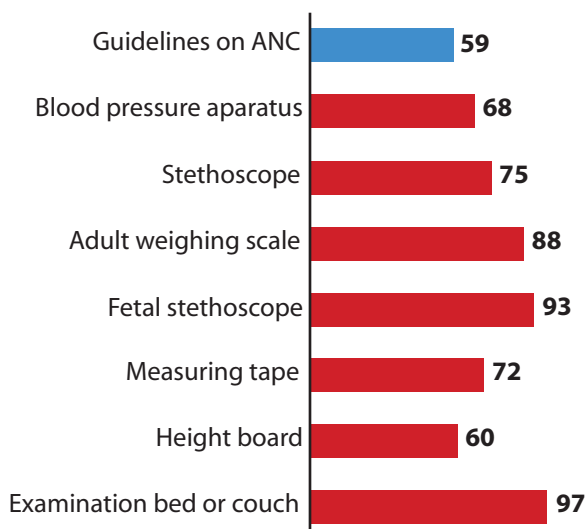
 More than 9 in 10 health facilities offering ANC services have iron tablets, iron or folic acid tablets, folic acid tablets, and combined irons and folic acid. More than three-quarters of facilities have the tetanus toxoid vaccine.

## Guidelines and Basic Equipment for ANC Services


 More than half of facilities (59%) have guidelines on ANC. More than 90% of facilities offering ANC services have an examination bed. Nearly 90% of facilities have an adult weight scale, 72% have measuring tape, and 60% have a height board. Three-quarters of facilities offering ANC services have a stethoscope and 93% have a fetal stethoscope.

### Guidelines and Basic Equipment for Antenatal Care Services


Among facilities offering ANC services, percent that have:




## Infection Control

 Facilities are more likely to have a sharps container (87%) than soap and running water or else alcohol-based hand disinfectant (53%). Eighty-five percent of facilities have latex gloves.

## Diagnostic Capacity

 Among facilities offering ANC services, 95% of facilities can test for HIV, 29% can conduct a rapid test for syphilis, and one-quarter have the ability to measure haemoglobin to assess anaemia. Hospitals have the highest diagnostic capacity in syphilis (85%) and haemoglobin (86%).

## Management Practices and Training

 The MSPA collected information on training and supervision of 1,147 ANC service providers. More than half of ANC providers received training related to ANC in the two years before the survey. Eight in ten providers received personal supervision during the six months before the survey.

Among ANC providers, in-service training within the last two years covered a range of topics including FP (27%), intermittent preventive treatment of malaria in pregnancy or IPTp (26%), ANC counselling (13%), and complications of pregnancy (13%). One in ten providers received in-service training on ANC screening and STIs.



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## Prevention of mother-to-child transmission (PMTCT) of HIV in ANC Facilities

The prevention of mother-to-child transmission (PMTCT) programme aims to reduce the risk of HIV transmission during pregnancy, delivery, or breastfeeding. PMTCT services include:

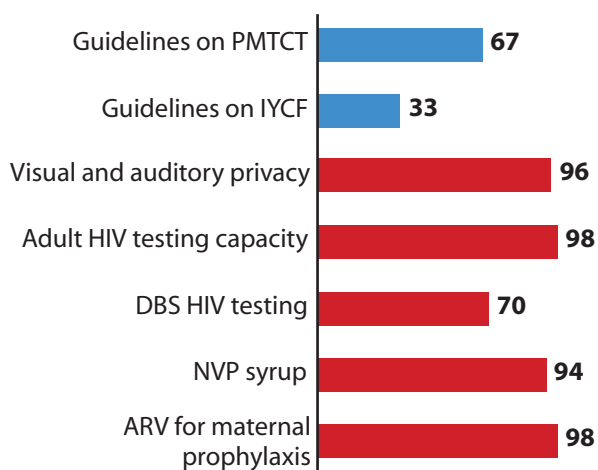
- HIV testing and counselling (HTC) for pregnant women
- HIV testing for infants born to HIV-positive women
- Antiretroviral (ARV) prophylaxis for HIV-positive pregnant women
- ARV prophylaxis for infants born to HIV-positive women
- Infant and young child feeding (IYCF) counselling for PMTCT
- Nutritional counselling for HIV-positive pregnant women and their infants
- FP counselling for HIV-positive pregnant women

Among facilities offering ANC, 92% offer PMTCT services. Nearly all hospitals and health centres that offer ANC services offer PMTCT services. Among facilities offering ANC and PMTCT services (N=579), 81% provide all seven PMTCT services.

Facilities are generally well equipped to provide PMTCT services. Two-thirds of facilities offering ANC and PMTCT services have PMTCT guidelines, while only one-third have IYCF feeding guidelines. Nearly all facilities have adult HIV testing capacity while only 70% prepare dried blood spot (DBS) for HIV testing. More than 9 in 10 facilities have Nevirapine (NVP) syrup for ARV prophylaxis for infants born to HIV-positive women and Regimen 5A for PMTCT, also known as Option B+.

### Guidelines, Equipment, Diagnostics, and Medicines for PMTCT


Among facilities offering ANC services and any PMTCT services (N=579), percent that have:



## Malaria Prevention and Treatment Services in ANC Facilities

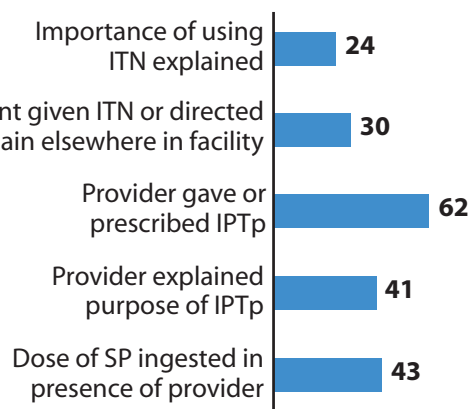
Among facilities offering ANC services (N=632), more than three-quarters of facilities distribute insecticide-treated nets (ITNs) to pregnant women attending ANC. Only half have IPTp guidelines. Nearly 6 in 10 facilities offering ANC have staff that received in-service training on malaria in pregnancy within two years of the survey. More than 90% of facilities have antimalarial medicines available such as ACT, sulfaoxine/pyrimethamine (SP), Quinine, as well as iron or folic acid. More than nine in ten facilities have malaria RDT. However, only 1 in 5 facilities can perform malaria microscopy.

### Malaria Component in ANC Consultations

 MSPA interviewers observed 2,068 ANC consultations. Part of the consultation included discussion on use of ITNs and IPTp during pregnancy. Most did not include all recommended elements of malaria prevention counselling. One-quarter of consultations explained the importance of using an ITN. One in three consultations either gave the client an ITN or directed the client elsewhere in facility to obtain an ITN. In more than 60% of observed consultations, the provider gave or prescribed IPTp to the ANC client. Although prescribed in a majority of cases, only 41% of consultations had the provider explain the purpose of IPTp to the pregnant woman. More than 4 in 10 ANC clients ingested the dose of SP in the presence of the provider.

### Malaria-related Interventions during Antenatal Care Visits

Percent of observed ANC clients (N=2,068)



# MATERNAL HEALTH: DELIVERY AND NEWBORN CARE



## Availability of Normal Delivery and Caesarean Delivery Services

Among all facilities, 54% offer normal delivery services and 7% offer Caesarean delivery. The majority of hospitals and health centres offer normal delivery services. Only hospitals offer Caesarean deliveries.

Among facilities offering normal delivery services (N=528), more than half have a provider of delivery care available on-site or on-call 24 hours per day with an observed duty schedule. Nearly 90% of hospitals and half of health centres have a provider available on-duty or on-call compared to only one-third of clinics. Health facilities in Southern region (62%) are more likely to have an on-duty or on-call provider than facilities in the Northern region (37%).

## Signal Functions for Emergency Obstetric Care

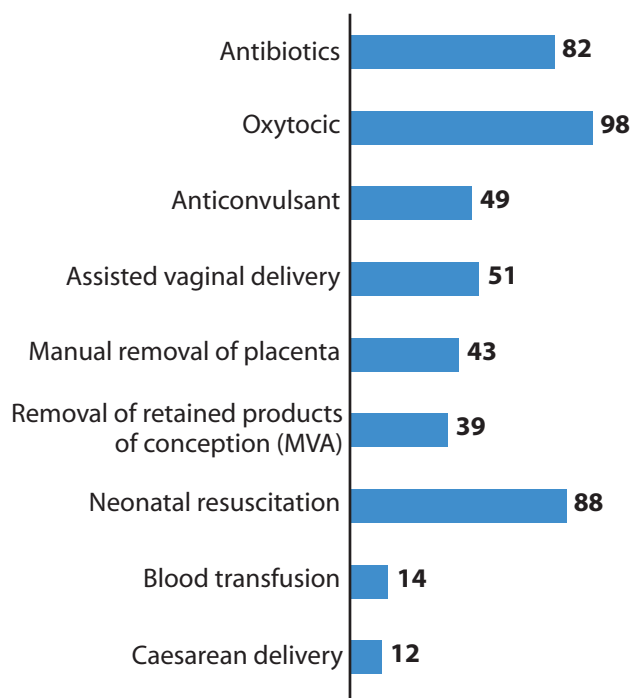
Among signal functions, the most commonly practiced is the administration of parenteral oxytocic at least once during the past three months (98%). Eight in ten facilities administered parenteral antibiotics at least once during the same time period. However, only half administered anticonvulsants.

Half of facilities providing normal delivery services carried out assisted vaginal deliveries at least once in the previous three months. Hospitals are 2.5 times more likely to conduct assisted vaginal deliveries than clinics (82% vs. 34%, respectively). Nearly 9 in 10 facilities conducted neonatal resuscitation. Almost 40% of facilities removed retained products of conception (MVA).

Only 14% of facilities offering normal delivery services had performed a blood transfusion at least once during the three months preceding the survey. Twelve percent of facilities conducted a Caesarean section in the past three months. All signal functions for emergency obstetric care are more common in hospitals than health centres or clinics.

### Signal Functions for Emergency Obstetric Care

Among facilities offering normal delivery services, percent that performed the following services at least once during the 3 months before the survey



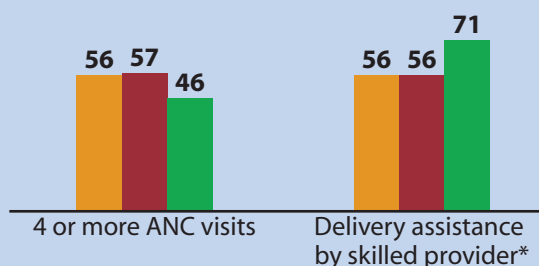
## Maternal Health: 2010 MDHS Results

Progress in maternal health care is uneven in Malawi. According to the 2010 MDHS, 95% of women received antenatal care by a trained provider (doctor, clinical officer, nurse, or midwife). The proportion of women who made at least four antenatal visits decreased from 56% in 2000 to 46% in 2010. Nearly three-quarters of births (73%) took place in a health facility; 57% in public sector facilities and 16% in private sector facilities. Delivery assistance by a skilled provider has increased in Malawi from 56% in 2000 to 71% in 2010. Less than half of Malawian women (43%) received postnatal care within the first two days after birth, as recommended.

### Trends in Maternal Health

Percent of women age 15-49 with a live birth in the 5 years before the survey

2000 DHS 2004 DHS 2010 DHS



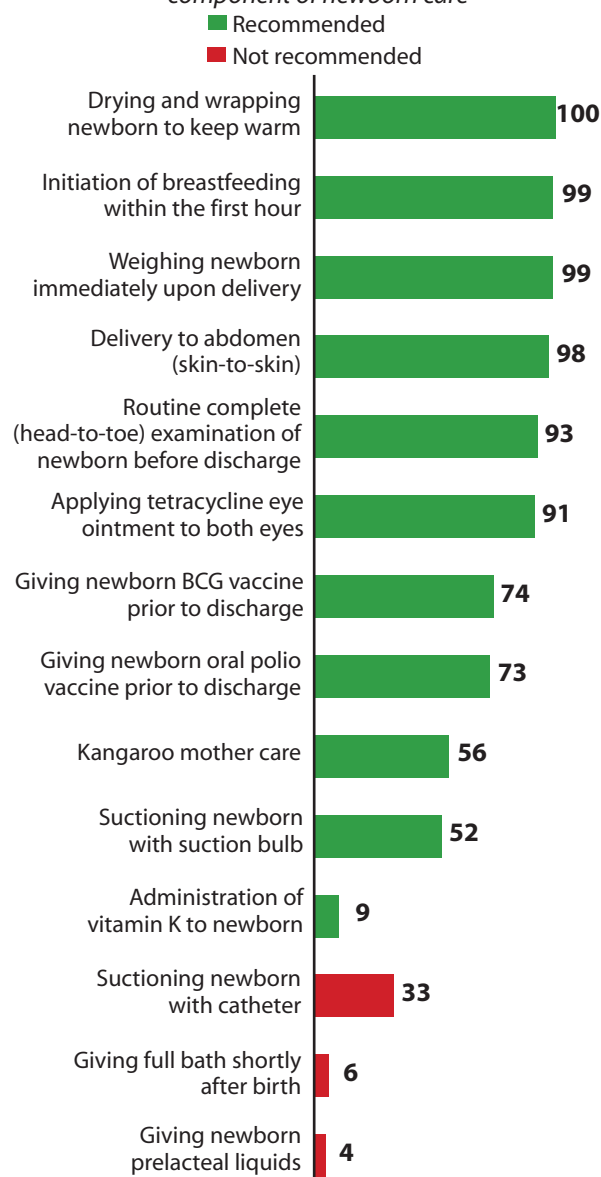
\*Skilled provider includes doctor, clinical officer, nurse, and midwife.



## Newborn Care Practices

Among facilities offering normal delivery services (N=528), nearly all report the following routine components of newborn care: drying and wrapping newborns to keep warm, weighing the newborn immediately upon delivery, initiation of breastfeeding within the first hour, delivery to the abdomen (skin-to-skin), routine complete examination of newborns before discharge, and applying tetracycline eye ointment to both eyes. More than 70% of facilities report giving the newborn the BCG vaccine (74%) or the oral polio vaccine (73%) prior to discharge as routine newborn care. Half of facilities practice kangaroo mother care (56%) and suctioning the newborn with suction bulb (52%) as routine newborn care. One-third report suctioning the newborn with catheter as routine care, although this practice is not recommended. Less than 10% of facilities consider two unrecommended practices as routine components of newborn care: giving full bath shortly after birth and giving newborn prelacteal liquids.

**Newborn Care Practices**  
Among facilities offering normal delivery services (N=528), percent reporting the indicated practice is routine component of newborn care



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## Availability of Medicine for Deliveries and Newborns



Among facilities offering normal delivery services, the majority of facilities have the essential medicines for delivery including injectable uterotonic (95%) to reduce/manage haemorrhages, injectable magnesium sulphate (85%), injectable diazepam (80%), intravenous fluids with infusion set (67%), injectable antibiotic (55%), and skin disinfectant (55%). Nearly all facilities (93%) have antibiotic eye ointment for the newborn, while more than one-third have 4% chlorhexidine.

## Guidelines and Equipment for Delivery Services



Among facilities offering normal delivery services, 66% have guidelines for integrated management of pregnancy and childbirth (IMPAC). Nearly 9 in 10 facilities have emergency transport. The availability of emergency transport is higher in hospitals (96%) than in health centres (88%). Almost all facilities providing normal delivery services have gloves and a delivery pack containing cord clamp, episiotomy scissors, scissors or blade to cut cord, suture material with needle, and needle holder.

Nearly 90% of facilities have a neonatal bag and mask as well as a partograph. Fewer facilities have a suction apparatus (63%), manual vacuum extractor (41%), examination lamp (32%), and vacuum aspirator or a dilatation and curettage (D&C) kit (24%).

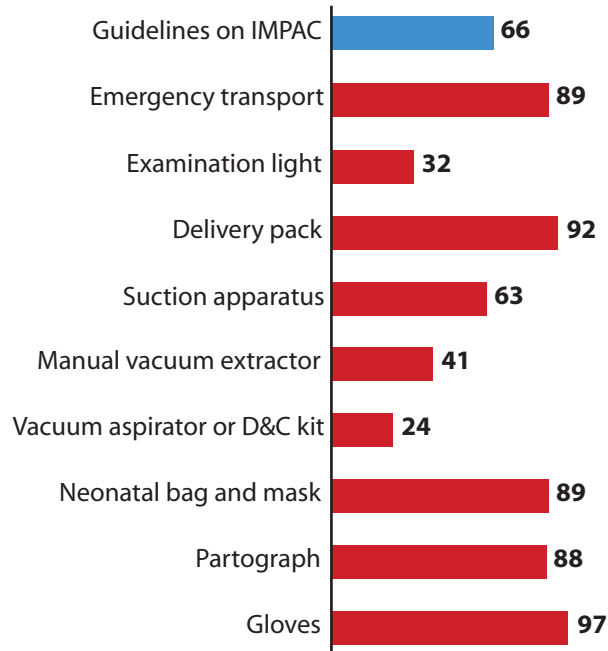
## Infection Control



Facilities are more likely to have a sharps container and latex gloves (both 97%). Overall, three-quarters of facilities have soap and running water or else alcohol-based disinfectant.

## Guidelines and Equipment for Delivery Services

Among facilities offering normal delivery services (N=528), percent that have:



## Management Practices and Training



The MSPA collected information on training and supervision of 1,081 providers of normal delivery or newborn care services. More than 60% of providers received training related to delivery and/or newborn care in the two years before the survey. Eight in ten providers received personal supervision during the six months before the survey.

Among delivery care providers, in-service training within the last two years covered a range of topics including neonatal resuscitation (33%), active management of third stage of labour (19%), routine care for labour and delivery (18%), emergency obstetric care/lifesaving skills (17%), post-abortion care (14%), and Integrated Management of Pregnancy and Childbirth (IMPAC) (11%).

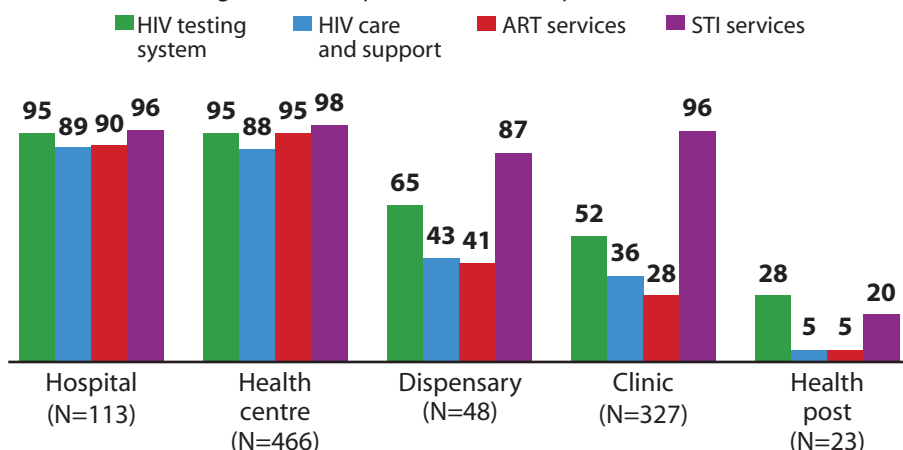
Among newborn care providers, in-service training within the last two years covered a range of topics including thermal care (28%), sterile cord cutting and care (27%), kangaroo mother care for low birth weight babies (20%), early and exclusive breastfeeding (24%), and newborn infection management (18%).

## Availability of HIV Services

Most hospitals and health centres in Malawi offer all elements of HIV services including HIV testing, HIV care and support services, antiretroviral therapy (ART) services, and STI services. Availability of HIV services at dispensaries, clinics, and health posts is uneven. Only about half of clinics have HIV testing capacity and one-quarter provide ART services. Health posts are least likely to offer any HIV service.

### Availability of HIV Services by Facility Type

Among all facilities, percent that offer specific HIV services

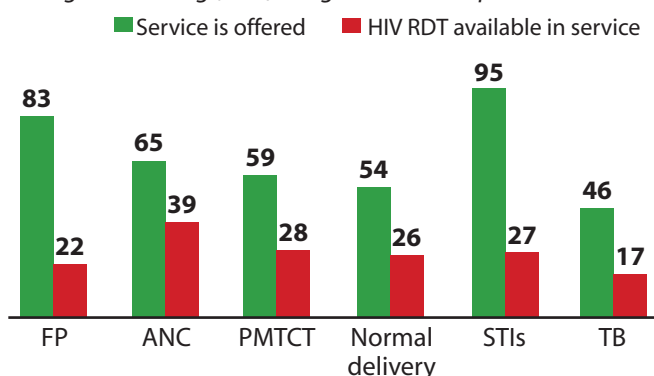


## Integration of HIV Testing into Facilities

The MSPA assessed the availability of HIV rapid diagnostic testing (RDT) at different service sites within the facility. Integration of HIV RDT into health services makes it easier for Malawians to access a wider range of services and get tested for HIV. Only a minority of health services nationwide have integrated HIV RDT. Availability of HIV RDT integration is highest in facilities offering ANC services (39%). Less than 3 in 10 facilities that offer services for PMTCT, STIs, normal delivery, or FP have integrated HIV RDT into their services. Only 17% of facilities that offer TB services have HIV RDT available. Failure to integrate HIV testing within services is a missed opportunity to offer HIV testing to clients.

### Integration of HIV Testing into Facilities

Among all facilities (N=977), percent with HIV rapid diagnosis testing (RDT) integrated within specific services



## Guidelines and Basic Equipment for HIV Services

Among facilities offering HIV/AIDS care and support services (N=652), most facilities have available cotrimoxazole tablets (96%), male condoms (85%), IV solution with infusion set (78%), and flucanazole (63%). Facilities are less likely to have first-line treatment for TB (31%) and a system for screening and testing HIV-positive clients for TB (30%). This is a major cause of concern because people living with HIV/AIDS are at high risk for TB. Among facilities offering ART services (N=656), more than 80% have ART guidelines and 70% have staff who have received in-service training within the last two years before the survey. Eight in ten facilities have the first line adult ART regimen available.

## Management Practices and Training

The MSPA interviewed 1,711 HIV testing and counselling (HTC) service providers about their training and supervision. Less than half of providers (41%) received training related to HTC in the two years before the survey. Eight in ten providers received personal supervision during the six months before the survey.

## HIV Care and Support Services

Most facilities providing HIV care and support services (N=652) offer prevention and treatment services for opportunistic infections. Three-quarters of facilities offer preventive treatment for TB. However, only 28% offer systemic IV treatment for fungal diseases and 22% offer treatment for Kaposi's sarcoma, which are highly specialised treatments mainly expected to be available at hospitals. Nine in ten facilities offer FP counselling or services and condoms for preventing further transmission of HIV, and 8 in 10 facilities offer Depo-Provera as a part of integrated FP services. More than half offer nutritional services, micronutrient supplementation, nutritional rehabilitation, and fortified protein supplementation. Nearly 90% of facilities offer paediatric HIV client care, which is most likely offered at government (94%) and CHAM facilities (89%). More than half of facilities offer palliative care services.

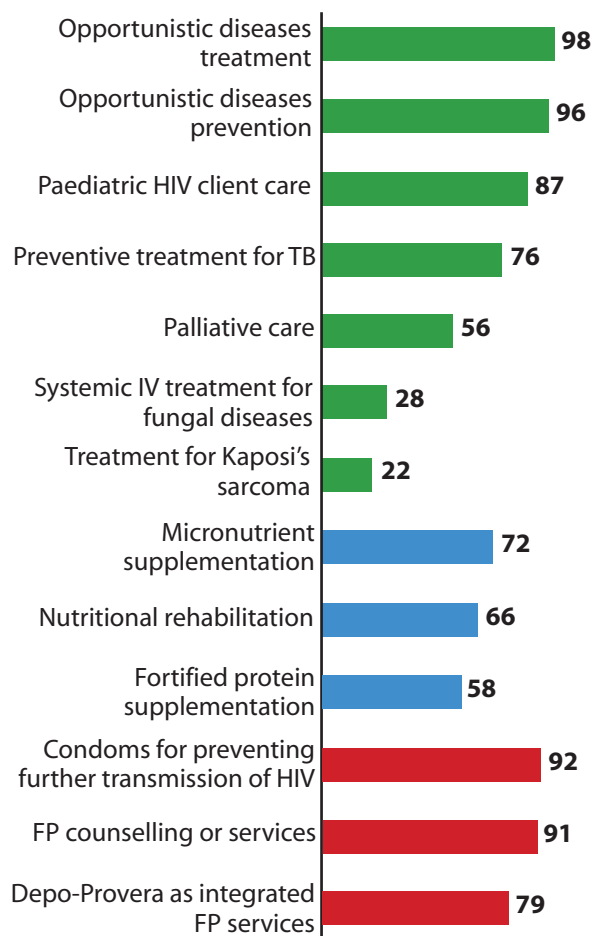
## Infection Control



Facilities that have HIV testing available on site are more likely to have a sharps container and latex gloves (92% each). More than half of facilities (58%) have soap and running water or else alcohol-based disinfectant. Availability of infection control items within laboratories with HIV testing capacity (N=457) follows a similar pattern.

## HIV Care and Support Services Offered

Among facilities offering care and support services for HIV clients (N=652), percent that offer specific services



## HIV in Malawi: 2010 MDHS Results

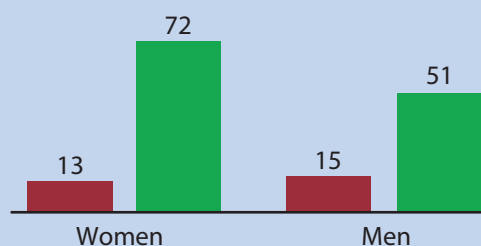
According to the 2010 MDHS, HIV prevalence is 10.6% for women and men age 15-49. HIV prevalence is higher among women (12.9%) than men (8.1%). HIV prevalence varies by region; in the Southern region HIV prevalence is 14.5% compared with 6.6% in the Northern region and 7.6% in the Central region.

The 2010 MDHS also collected data on HIV testing. As of 2010, 72% of women and 51% of men have ever been tested and received their results, which is a dramatic increase from 2004.

## Trends in HIV Testing

Percent of men and women age 15-49 who have ever been tested for HIV and received the results of the last test

■ 2004 MDHS ■ 2010 MDHS



## Availability of Malaria Services

Overall, 96% of all health facilities in Malawi offer malaria diagnosis and/or treatment services. Only 4 in 10 health posts offer malaria services compared to about 90% of dispensaries and nearly all health centres, clinics, and hospitals.

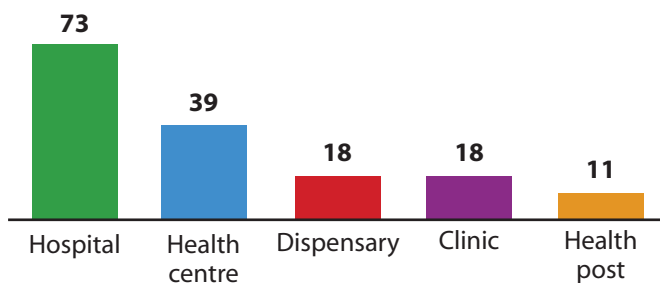
## Malaria Diagnostic Capacity



Only 35% of facilities offering curative care for sick children (N = 915) have the capacity to diagnose malaria by having unexpired malaria RDT kits or a functioning microscope as well as staff member recently trained and malaria RDT protocol available in the facility. Hospitals are far more likely to have malaria diagnostic capacity than other facility types. CHAM and government facilities have the highest malaria diagnostic capacity (44% and 42%, respectively), while privately managed facilities have the lowest diagnostic capacity (17%).

### Malaria Diagnostic Capacity by Facility Type

Among facilities offering curative care for sick children (N=915), percent that have malaria diagnostic capacity on the day of the survey



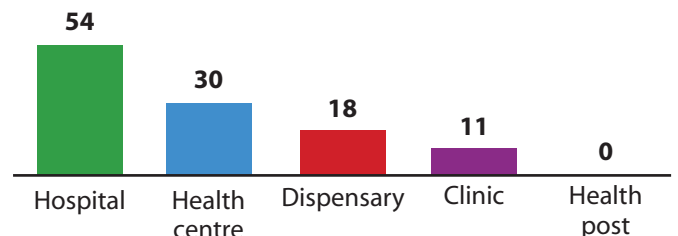
## Malaria Service Readiness

Among facilities offering curative care for sick children, nearly two-thirds have malaria treatment guidelines. Nine in ten facilities have the first line treatment medicine, ACT. More than half of facilities have staff trained in malaria diagnosis and/or treatment in the last two years.

The malaria service readiness index combines these indicators into one index, resulting in only one-quarter of facilities have malaria diagnostic capacity, malaria treatment guidelines, first-line medicine, as well as recently trained personnel. Malaria service readiness is highest in hospitals (54%) and lowest in health posts (0%). One-third of government and CHAM facilities are malaria service ready compared to only 9% of privately managed facilities.

### Malaria Service Readiness Index by Facility Type

Among facilities offering curative care for sick children (N=915), percent that have malaria diagnostic capacity, malaria treatment guidelines, 1st line medicine, and trained personnel



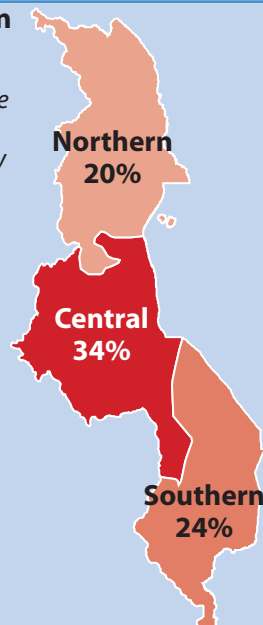
## Malaria Prevalence: 2012 MMIS Results

According to 2012 Malawi Malaria Indicator Survey (MMIS), 28% of children under five tested positive for malaria by blood smear microscopy. Regionally, malaria prevalence is lowest in the Northern region at 20% and highest in the Central region at 34%. Twenty-four percent of children under five in the Southern region tested positive for malaria. In Malawi, 55% of households have at least one ITN. ITN ownership varies regionally, from 64% of households in the Northern region to 57% of households in the Central region and 51% of households in the Southern region. Among children under five, more than half (56%) slept under an ITN the night before the survey.

## Malaria in Children by Region

Percent of children age 6-59 months testing positive for malaria by blood smear

Malawi  
28%



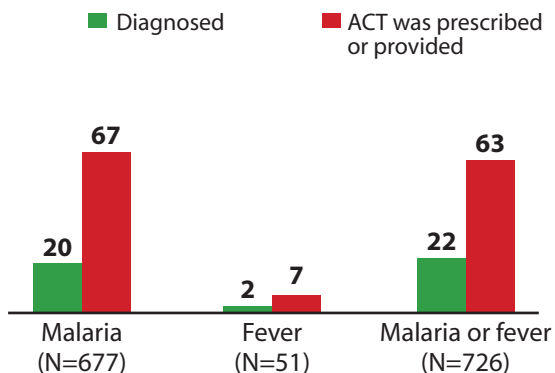
## Malaria Treatment among Children

In Malawi, only confirmed cases of malaria should be treated with the first line treatment ACT. Interviewers observed 3,329 consultations for sick children. Of these sick children, 2% were diagnosed with fever and 20% were diagnosed with malaria by RDT or microscopy.

Among children diagnosed with malaria (N=677), two-thirds were prescribed or provided with ACT. This treatment varies by facility type, from 54% among children seen in clinics to 88% in health posts. Among observed sick children, only 2% were diagnosed with fever (N=51), of which 7% were prescribed or given ACT. Overall, 22% of children were diagnosed with either malaria or fever (N=726). Sixty-three percent of children diagnosed with either malaria or fever were prescribed or given ACT.

### Treatment of Malaria in Children

Among sick children whose consultations were observed (N=3,329), percent diagnosed and treated



## Guidelines and Diagnostics for Malaria Services

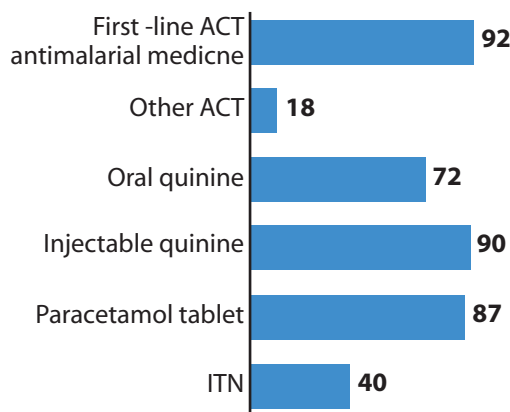
Among facilities offering malaria diagnosis and/or treatment (N=940), nearly two-thirds have guidelines for malaria diagnosis and/or treatment services, but only one-third have guidelines on IPTp. Eighty-eight percent of facilities have malaria RDT kits while only 14% have malaria microscopy. Overall, 11% of facilities do not have any malaria diagnostics.

## Availability of Malaria Medicines and Commodities

The 2013-14 MSPA assessed the availability of antimalarials and commodities in the facilities offering the malaria diagnosis and/or treatment services (N=940). Nine in ten facilities have the first-line ACT antimalarial available while 18% have other ACT available. Similarly, 90% of facilities have injectable quinine and 72% have oral quinine. The availability of artesunate, either injectable or rectal, is quite low. Only four in ten facilities have ITNs available for distribution to clients.

### Availability of Malaria Medicines and Commodities

Among facilities offering malaria diagnosis and/or treatment services (N=940), percent that have:



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# NON-COMMUNICABLE DISEASES

Sub-Saharan African countries are experiencing growing rates of diabetes, cardiovascular disease (CVD), and chronic respiratory disease. It is important that the Malawi health care system have the capacity to appropriately diagnose and treat non-communicable diseases (NCDs).

## Diabetes Services

Nearly half of all health facilities offer services for diabetes that include diagnosis, prescription of treatment, or management of diabetic patients. Nearly 9 in 10 hospitals and more than half of clinics offer diabetes services. Among facilities that provide services for diabetes (N=453), diagnostic capacity and availability of medicines are generally low. Only 4 out of 10 facilities have the capacity to test for glucose, 29% have capacity to test urine protein, and 28% have capacity to test for urine glucose. More facilities can treat diabetes. Overall, 80% of facilities have injectable glucose solution, 51% have glibenclamide, 41% have Metformin, and only 19% have injectable insulin.

## Cardiovascular Disease Services

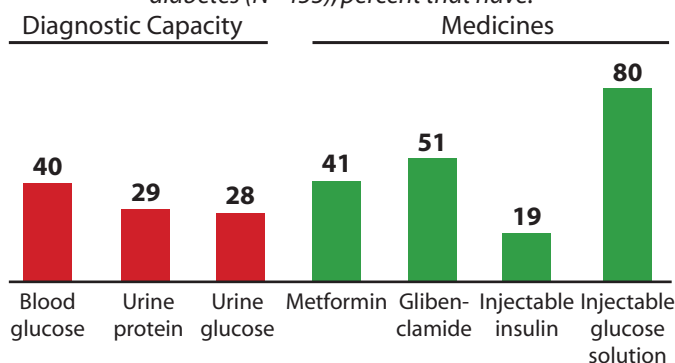
Among all facilities, 85% provide services for cardiovascular diseases, including diagnosis, prescription of treatment, and management of patients with CVD. However, only half of facilities that offer CVD services (N=835) have Thiazide for reducing high blood pressure. More than one-quarter have calcium channel blockers (Amlodipine/Nifedipine), 25% have Beta blockers (Atenolol) for angina or hypertension, 23% have Metformin capsules or tablets, 15% have oxygen, and only 10% have ACE inhibitors (Enalapril). Among facility types, hospitals are most likely to have all CVD medicines and commodities.

## Chronic Respiratory Disease Services

Three-quarters of facilities in Malawi provide support services for chronic respiratory diseases, which include diagnosis, prescription of treatment, or management of patients with chronic respiratory diseases. Availability of essential medicines and commodities in facilities that provide chronic respiratory disease services (N=729) is relatively low with the exception of salbutamol inhaler or tablets (93%) and injectable ephinephrine (64%). Even fewer facilities have other medications for treating irregular heart rhythm and lowering cholesterol. Hospitals are most likely to have all essential medicines and commodities.

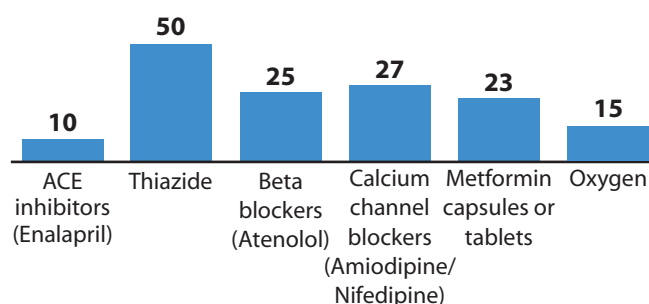
### Diagnostic Capacity and Essential Medicines for Diabetes

Among facilities offering services for diabetes (N=453), percent that have:



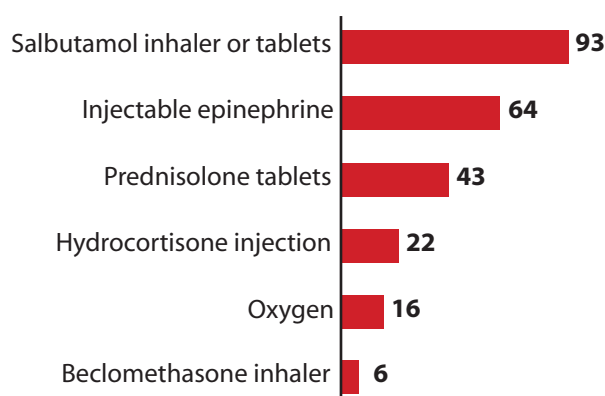
### Availability of Essential Medicines and Commodities for Cardiovascular Diseases

Among facilities offering services for cardiovascular diseases (N=835), percent that have:



### Availability of Essential Medicines and Commodities for Chronic Respiratory Diseases

Among facilities offering services for chronic respiratory diseases (N=729), percent that have:



## Tuberculosis Services

Overall, half of all health facilities offer TB diagnosis or treatment services. Among these facilities (N=509), 45% have staff who received in-service training within the last two years.

Nearly 4 in 10 facilities have guidelines on the diagnosis and treatment of TB, 30% have guidelines on HIV and TB co-infection, 28% have guidelines on infection control, and 22% have guidelines on diagnosis and treatment of multi-drug resistance (MDR-TB).

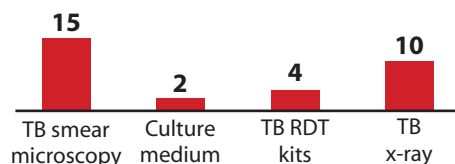
Few facilities offering TB services have the equipment to diagnose TB. Among facilities that offer any TB services, only 15% have TB smear microscopy which includes a functioning microscope, slides, and all stains for the Ziehl-Neelson test. One in ten facilities has the capacity to conduct TB x-rays. Only 4% of facilities have TB RDT test kits and 2% can test culture medium. Hospitals are more likely than other facility types to have these capacities.

Nine in ten facilities offering any TB services have HIV diagnostic capacity, but only one-third have a system for diagnosing HIV among TB clients. This system includes a record or register indicating TB clients who have been tested for HIV.

Among facilities offering TB treatment and/or treatment follow-up services (N=251), 64% have the first-line treatment for TB. One-quarter of facilities have injectable streptomycin.

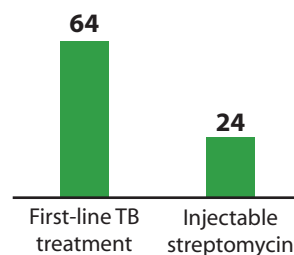
## Tuberculosis Diagnostic Capacity

Among facilities offering services for TB (N=509), percent that have:



## Availability of Medicines for Tuberculosis

Among facilities offering TB treatment and/or treatment follow-up services (N=251), percent with:



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# GENERAL SERVICE READINESS INDICATORS

Availability of Basic Amenities for Client Services	Facility Type				
	Hospital	Health Centre	Dispensary	Clinic	Health Post
Regular electricity <sup>1</sup> (%)	79	65	49	49	30
Improved water source <sup>2</sup> (%)	98	93	96	96	70
Visual and auditory privacy <sup>3</sup> (%)	91	98	93	96	80
Client latrine <sup>4</sup> (%)	60	18	22	59	4
Communication equipment <sup>5</sup> (%)	90	70	45	85	56
Computer with internet <sup>6</sup> (%)	73	21	13	49	5
Emergency transport <sup>7</sup> (%)	93	87	81	57	40
<b>Availability of Basic Equipment</b>					
Adult scale (%)	82	79	58	93	35
Child scale <sup>8</sup> (%)	66	68	57	37	80
Infant scale <sup>9</sup> (%)	59	61	27	22	19
Thermometer(%)	89	77	65	95	30
Stethoscope (%)	93	87	81	97	19
Blood pressure apparatus <sup>10</sup> (%)	86	69	57	97	14
Light source <sup>11</sup> (%)	56	22	13	48	0
<b>Standard Precautions for Infection Control</b>					
Sterilisation equipment <sup>12</sup> (%)	75	19	4	40	0
Equipment for high level disinfection <sup>13</sup>	67	65	37	56	19
Safe final disposal of sharps waste <sup>14</sup> (%)	70	50	77	68	71
Safe final disposal of infectious waste <sup>14</sup> (%)	69	56	72	68	76
Appropriate storage of sharps waste <sup>15</sup> (%)	72	76	83	75	95
Appropriate storage of infectious waste <sup>15</sup> (%)	30	20	20	39	25
Disinfectant <sup>16</sup> (%)	73	54	56	63	49
Syringes and needles <sup>17</sup> (%)	89	92	87	82	91
Soap (%)	84	60	44	76	9
Running water <sup>18</sup> (%)	96	82	66	86	50
Soap and running water (%)	82	55	42	73	0
Alcohol-based hand disinfectant (%)	35	10	15	33	0
Soap and running water or alcohol-based hand disinfectant (%)	85	56	45	78	0
Latex gloves <sup>19</sup> (%)	90	91	87	88	69
Medical masks	75	72	62	49	26
Gowns	80	74	67	59	25
Eye protection	34	16	13	15	0
Guidelines for standard precautions <sup>20</sup> (%)	53	39	28	33	5

<sup>1</sup>Facility is connected to a central power grid and there has not been an interruption in power supply lasting for more than 2 hours at a time during normal working hours in the 7 days before the survey. <sup>2</sup>Water is piped into facility or piped onto facility grounds, or else water from a public tap or standpipe, a tube well or borehole, a protected dug well, protected spring, or rain water, or bottled water and the outlet from this source is within 500 metres of the facility. <sup>3</sup>A private room or screened-off space available in the general outpatient service area that is a sufficient distance from other clients so that a normal conversation could be held without the client being seen or heard by others. <sup>4</sup>The facility had a functioning flush or pour-flush toilet, a ventilated improved pit latrine, or composting toilet. <sup>5</sup>The facility had a functioning landline telephone, functioning facility-owned cellular phone, a private cellular phone that is supported by the facility or a functioning short wave radio available at the facility. <sup>6</sup>The facility had a functioning computer with access to the internet that is not interrupted for more than 2 hours at a time during normal working hours, or facility has access to the internet via a cellular phone inside the facility. <sup>7</sup>The facility had a functioning ambulance or other vehicle for emergency transport that is stationed at another facility or that operates from another facility. <sup>8</sup>A scale with gradation of 250 grams, or a digital standing scale with a gradation of 250 grams or lower where an adult can hold a child to be weighed. <sup>9</sup>A scale with gradation of 100 grams, or a digital standing scale with a gradation of 100 grams where an adult can hold an infant to be weighed. <sup>10</sup>A digital blood pressure machine or a manual sphygmomanometre with a stethoscope. <sup>11</sup>A spotlight source that can be used for client exam or a functioning flashlight. <sup>12</sup>Facility reports that some instruments are processed in the facility and the



Government	Managing Authority				Regions			
	CHAM	Private	NGO	Company	Northern	Central	Southern	Total
63	68	44	49	72	56	66	55	59
91	97	96	100	96	89	94	96	94
95	97	95	98	100	98	95	96	96
22	32	51	74	74	33	37	38	37
69	71	87	91	79	73	76	76	76
21	44	42	84	52	30	34	39	35
85	86	46	73	91	82	74	77	77
71	90	91	95	94	77	82	84	82
64	74	37	44	45	50	56	60	57
55	60	23	28	25	47	42	47	45
71	94	95	95	93	82	84	82	83
82	94	97	95	94	86	91	89	89
63	88	97	93	94	80	78	79	78
20	39	52	58	39	32	34	34	34
20	40	37	73	34	19	37	31	31
55	74	56	60	69	54	62	60	60
51	67	66	81	70	68	59	57	60
56	68	65	83	72	66	62	62	63
80	68	70	77	88	81	70	79	76
21	22	29	54	66	27	28	29	28
51	69	63	67	75	55	59	61	59
92	92	80	79	88	92	89	86	88
52	78	73	88	88	67	66	65	66
78	91	83	98	91	78	83	86	83
48	74	71	88	82	63	62	62	62
10	23	33	60	16	21	20	21	21
50	77	77	90	82	65	65	65	65
90	86	87	91	94	96	86	89	89
69	66	43	56	79	65	63	62	63
70	74	56	67	81	67	70	68	68
13	25	12	32	30	12	15	20	17
36	48	23	54	48	36	39	36	37

facility has a functioning electric dry heat steriliser, a functioning electric autoclave, or a non-electric autoclave with a functioning heat source available. <sup>13</sup>Facility reports that some instruments are processed in the facility and facility has an electric pot or other pot with heat source for high-level disinfection by boiling or steaming or else facility has chlorine, formaldehyde, CIDEX, or glutaraldehyde for chemical high-level disinfection available in facility. <sup>14</sup>The process of sharps waste or infectious waste disposal is incineration and facility has functioning incinerator with fuel on day of survey, or else facility disposes of sharps or infectious waste by means of open burning in protected area, dumping without burning in protected area, or removal offsite with storage in protected area prior to removal. <sup>15</sup>Sharps container and/or waste receptacles observed in general outpatient service area, in area where HIV testing is done if facility does HIV testing, as well as in area where minor surgery is done, if facility does minor surgeries. <sup>16</sup>Chlorine-based or other country-specific disinfectant. <sup>17</sup>Single-use standard disposable syringes with needles or else auto-disable syringes with needles. <sup>18</sup>Piped water, water in bucket with specially fitted tap, or water in pour pitcher. <sup>19</sup>Non-latex equivalent gloves acceptable. <sup>20</sup>Any guideline for infection control in health facilities available.

# GENERAL SERVICE READINESS INDICATORS

Laboratory Diagnostic Capacity	Facility Type				
	Hospital	Health Centre	Dispensary	Clinic	Health Post
Haemoglobin (%)	82	13	0	16	0
Blood glucose (%)	63	7	4	27	0
Malaria diagnostic test (%)	95	94	72	76	19
Urine protein/urine glucose (%)	66	5	0	15	0
Urine glucose (%)	63	5	0	14	0
HIV diagnostic test (%)	95	95	65	52	28
DBS collection (%)	60	70	30	6	5
TB microscopy (%)	40	5	0	3	0
Syphilis rapid diagnostic test (%)	79	16	4	17	0
General microscopy (%)	61	10	0	14	0
Urine pregnancy test (%)	66	8	0	32	0
Liver or renal function test (ALT or Creatinine) (%)	40	1	0	5	0
Serum electrolytes (%)	42	1	0	8	0
Full blood count with differentials (%)	42	1	0	8	0
Blood typing and cross matching (%)	39	1	0	2	0
CD4 count (%)	43	3	0	1	0
Syphilis serology (%)	5	0	0	0	0
Gram stain (%)	57	1	0	3	0
Stool microscopy (%)	55	2	0	6	0
CSF/body fluid counts (%)	73	4	0	10	0
TB culture (%)	5	0	0	0	0
TB rapid diagnostic test (%)	7	3	0	0	0
X-ray machine (%)	44	1	0	0	0
Ultrasonogram (%)	50	1	0	2	0
CT scan (%)	4	0	0	0	0
Availability of Essential Medicines					
Amitriptyline tablets/capsules (depression in adults) (%)	69	26	15	43	5
Amoxicillin tablets/capsules (1st line antibiotic for adults) (%)	91	86	70	77	19
Atenolol tablets/capsules (beta-blocker of angina/hypertension) (%)	55	9	7	34	0
Captopril tablets/capsules (vasodilator for hypertension) (%)	54	3	2	30	0
Ceftriaxone injectable (2nd line antibiotic) (%)	85	54	22	38	0
Ciprofloxacin tablets/capsules (2nd line oral antibiotic) (%)	73	45	23	67	5
Cotrimoxazole oral suspension (oral antibiotic for children) (%)	40	17	11	51	4
Diazepam tablets/capsules (muscle relaxant for anxiety, seizures) (%)	92	90	65	59	9
Diclofenac tables/capsules (oral analgesic) (%)	68	17	13	73	0
Glibenclamide tables/capsules (type 2 diabetes) (%)	72	8	8	45	0
Omeprazole/Cimetidine tablets/capsules (proton pump inhibitor for peptic ulcer disease, dyspepsia, and gastro-esophageal reflux disease) (%)	75	14	11	64	0
Paracetamol oral suspension (fever-reduction and analgesic for children) (%)	84	72	51	64	9
Salbutamol inhaler (for bronchospasm in conditions such as asthma and chronic obstructive pulmonary disease) (%)	67	18	4	47	4
Simvastatin/Atorvastatin tablets/capsules (elevated cholesterol) (%)	6	1	0	4	0

Managing Authority					Regions			
Government	CHAM	Private	NGO	Company	Northern	Central	Southern	Total
14	42	24	15	15	14	23	22	21
10	32	32	30	16	18	24	18	20
90	97	75	82	64	86	88	83	85
8	29	19	16	12	12	16	15	15
7	29	19	14	12	10	16	15	14
90	97	39	84	64	82	79	75	78
61	64	5	21	19	45	44	44	44
9	14	4	5	3	8	8	8	8
18	39	24	16	18	21	24	22	23
15	28	18	10	6	15	17	17	17
8	40	39	35	15	14	26	23	22
4	11	8	5	7	5	7	7	7
5	13	11	8	6	5	8	8	8
5	13	11	8	6	5	8	8	8
3	13	5	3	1	5	7	4	5
9	9	2	7	0	10	6	6	7
1	1	0	2	0	0	1	1	1
6	20	6	3	4	9	10	7	8
7	20	8	5	6	9	10	9	9
9	31	15	8	6	10	17	12	13
1	1	0	3	0	1	1	1	1
3	2	0	3	1	2	2	2	2
6	13	2	3	1	5	5	6	5
6	16	6	3	0	6	8	7	7
0	2	0	2	0	0	1	0	1
26	48	49	24	39	45	32	35	36
80	92	80	75	73	87	84	77	81
8	36	40	12	40	19	23	22	22
5	28	38	12	21	17	22	15	18
50	66	41	28	48	49	52	47	49
39	69	68	88	49	54	56	52	54
9	43	50	75	50	23	32	32	30
84	91	60	63	61	85	80	72	77
11	61	79	74	49	32	44	42	41
13	35	53	31	31	29	30	25	28
12	52	72	58	45	29	43	35	37
67	77	67	68	59	72	71	65	68
15	47	50	49	42	27	37	30	32
0	3	6	2	7	1	3	2	2

