THE REPUBLIC OF UGANDA

MINISTRY OF HEALTH

MIDTERM ANALYTICAL REVIEW OF PERFORMANCE OF THE HEALTH SECTOR STRATEGIC AND INVESTMENT PLAN 2010/11-2014/15

(VOLUME: 2)

In Collaboration with the

WORLD HEALTH ORGANIZATION

September, 2013

Printed with the contribution of the Italian Cooperation

TABLE OF CONTENTS

HSSIP 2010/11 – 2014/15 indicators

Summary table

	OVERALL PROGRESS	BASELINE 2009/10	ACHIEVEMENT 2012/13	TARGET 2014/15
HEALTH STATUS				
Maternal mortality ratio		435/100,000 (1999-2006)	438/100,000 (2004-11)	131
Under-5 mortality rate		137/1,000 (2001-05)	90/1,000 (2007-11)	56
Infant mortality rate		76/1,000 (2001-05)	54/1,000 (2007-11)	41
Neonatal mortality rate		29/1,000 (2001-05)	27/1,000 (2007-11)	23
Child stunting rate		38% (2006)	33% (2011)	28%
Child wasting rate		16% (2006)	14% (2011)	10%
COVERAGE OF INTERVENTIONS				
ANC at least 4 visits		47% (2001-2006)	31% (HMIS)	60%
IPT2 coverage		47%	48.5% (HMIS)	80%
Deliveries in health facilities		33% (2004-06)	41% (HMIS)	90%
Contraceptive prevalence rate		24% (2006)	30% (2011)	40%
Penta 3 immunization coverage		76%	91% (HMIS)	85%
Measles immunization coverage		72%	91% (HMIS)	95%
Malaria treatment <24h for U5s with fever (VHT)		70%	43.5%	85%
TB case detection rate		56% (2008/09)	57%	70%
HIV testing of HIV-exposed infants		29%	46%	75%
ART coverage among those in need		53%	77%	75%
Households with pit latrine		70%	70%	72%
HEALTH SYSTEMS				
Government allocation for health (%)		8.3%	7.9%	15%
Catastrophic payments (% households)		43%	No data	13%
Annual reduction in absenteeism		Absenteeism 46%	No data	20%
Villages/wards with VHTs		75%	55%	100%
Approved posts filled (%)		56%	63%	75%
No stockouts of tracer meds		21%	53%	80%
Outpatient visits per capita		0.9	1.1	1.0
HC IVs providing EmOC		23%	36%	50%
Client satisfaction		46%	No data	70%

1 BACKGROUND

The Uganda Health Sector Strategic and Investment Plan (HSSIP) (2010/11-2014/15) is the key Ministry of Health document to guide the health sector. It is the sector's comprehensive national plan and provides the guiding framework for the detailed planning and implementation of health sector activities. It includes 26 core indicators and many of those have a baseline for 2010 or earlier, and a target for 2015.

For each annual health sector review a health sector performance profile is produced to assess progress towards the targets for the indicators of HSSIP . The midterm review (MTR) of HSSIP is envisaged to provide information that will guide further implementation of HSSIP 2010/11 - 2014/15 and future design of HSSP IV requires a comprehensive and in-depth analysis of progress and performance.

The primary objective of the analytical report is to review, analyze, and document progress, during the first half of HSSIP implementation (2010-2013). It will provide an in-depth analysis and synthesis of all relevant data, including health and other household surveys, census, health facility and disease surveillance data, facility assessments, administrative resources data, policy data and research studies.

The approach is to cover all major health areas, focusing on the HSSIP indicators, but also taking into account core indicators in related programme specific plans. These are referred to in each section of the report. Each section includes (1) a brief data quality assessment, (2) an assessment of progress against targets for key HSSIP indicators, (3) equity analysis by key stratifiers, (4) a comparative analyses with countries in the subregion, (5) analysis of additional indicators, including service delivery, where available. In the final section overall performance and efficiency are assessed by comparing inputs and results at the sub-national level (mostly regions) and Uganda's performance is compared with other countries in the region. A logical results framework is used to conduct a stepwise analysis.

The analytical review was carried as a desk review of technical reports including population surveys, programme evaluation reports, policy documents and research studies, as well as analysis of existing survey and HMIS data. The analysis was conducted by technical working groups from the Ministry of Health with technical support from the World Health Organization.

The analytical report is based on analysis and synthesis of existing data, including preliminary data from recent data collection efforts. While the focus is on the period 2009-2012 a considerable attention was paid for trends prior to 2009 to help interpret more recent data.

Data sources for the analytical report

- **Population health surveys**
  - Uganda Demographic and Health Surveys 2011, 2006, 2002, 2000/01, 1995, 1988/89
  - Uganda HIV/AIDS Indicator Surveys 2011, 2004/05
  - Uganda Malaria Indicator Survey 2009
  - National Panel Survey 2009/10
  - Uganda National Household surveys
- **Health facility data and reports**
  - Core HMIS data base
  - Annual Health Statistics Report 20XX
  - Annual health Sector performance report: 2011/12, 2010/11, 2009/10, 2008/09, 2007/08
  - Programme databases and annual reports of disease programs
- **Facility assessments**
  - SPA 2007: SAM 2004; SARA 2012; SARA 2013
- **Administrative data**
  - Financing: NHA with subaccounts 2009/10
  - Human resources: biannual report on human resources for health, October 2012-March 2013
  - Infrastructure: Health Facility Inventory
- **Research studies**

2 HEALTH STATUS OF THE POPULATION

Main findings

- Under-five mortality in Uganda continues to decline rapidly from 137 to 90 deaths per 1,000 live births for period 2004-11, although the pace of mortality reduction needs to be accelerated in order to meet the target of 56 per 1000, by 2015. Gaps by region and education level have narrowed considerably in the past 10 years.
- Infant mortality has also seen a rapid decline from 76 to 54 deaths per 1,000 live births, and appears to account for a large share of the decline in under-five mortality.
- There has been little to no progress on neonatal mortality, which accounts for a third of deaths under the age of five according to UDHS results.
- Leading outpatient diagnosis for all ages was malaria, although the proportion appears to be declining slightly over time. Malaria is also the leading cause of inpatient deaths both for children under five and persons five years and above; however, the proportion of deaths due to malaria has been approximately halved between 2009/10 and 2012/13.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Under-five mortality rate (per 1000)	137 (UDHS2006 for 2001-05)	90 (UDHS 2011 for 2004-11)	-	-	56	Major progress in the past decade, progress must be accelerated to reach target
Infant mortality rate (per 1000)	76 (UDHS2006 for 2001-05)	54 (UDHS 2011 for 2004-11)	-	-	41	Major progress in last decade, progress must be accelerated to reach target
Neonatal mortality rate (per 1000)	29 (UDHS2006 for 2001-05)	27 (UDHS 2011 for 2004-11)	-	-	23	No progress

Data sources and quality

- **Surveys:** Mortality data mainly comes from DHS. Baseline indicators are from UDHS 2006 while achievement indicators come from UDHS 2011. The maternal mortality ratios are presented for the 10 year period before each survey while the rest are for 5 years prior the survey. The population census is planned for 2013/14; however field work has not yet commenced.

- **Estimates:** WHO, UNICEF, and other agencies use mortality data from DHS to estimate the trend in child and adult mortality and make projections.

- **Health facility reports:** HMIS provides data for outpatient and inpatient morbidity and mortality.

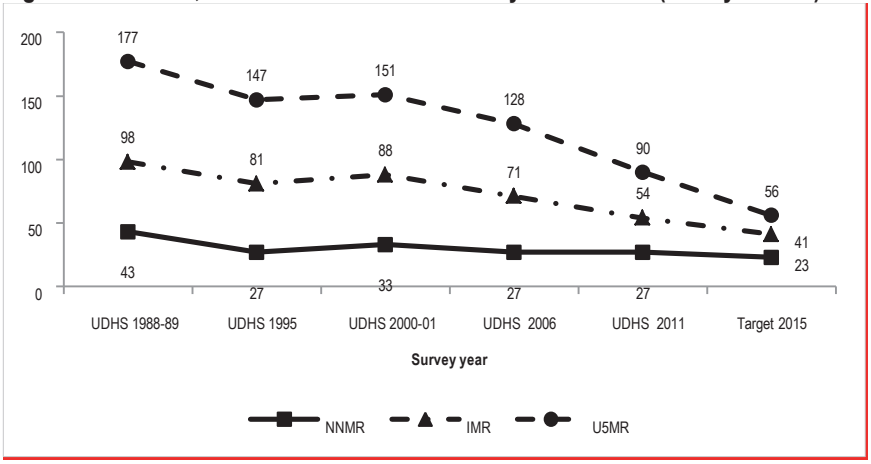
- **Quality:** DHS are nationally representative surveys using a standard and validated methodology across several countries in the developing countries. The sample allows for disaggregation of estimates at sub-regional and along several socio-demographic stratifiers such as place of residence, age, sex, among others. However, these surveys only come after 5 years and annual trend estimates cannot be computed. HMIS data is of variable quality based on assessment of reporting completeness, internal consistency as well as with external data sources. Outpatient and inpatient morbidity and mortality are affected by revisions to the HMIS reporting forms as well as by the transition to DHIS 2 in 2012, resulting in limited comparability across years.

National trends

Under-five, infant and neonatal mortality

Data from UDHS 2011 show that neonatal mortality rate is 27, infant mortality rate is 54 and under-five mortality rate is 90 per 1,000 live births. Figure 1 shows the trend in neonatal, infant and under-five mortality from 1988-89 to 2011. With the exception of neonatal mortality rate, there has been a downward trend in mortality with sharp decline from the early 2000s. It is not clear whether given the current trends the 2015 targets will be achieved, especially if neonatal mortality remains at current levels, as it generally contributes to a large fraction of the overall children mortality burden.

Figure 1: Neonatal, infant and under-five mortality rates trends (survey results)



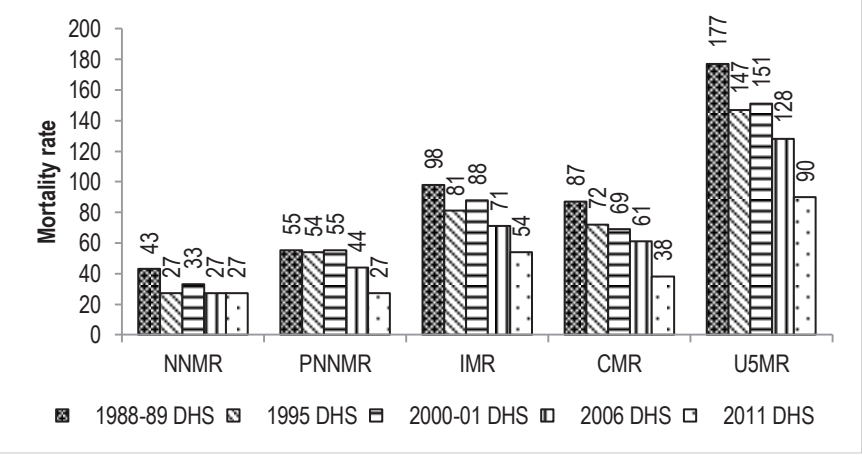
Source: DHS surveys

Strong decline in infant mortality (54) and under 5 mortality (90) since late nineties

No progress in reduction of neonatal mortality over last decade

Figure 2 below shows a closer look at mortality estimates from DHS surveys over the years. The figure shows that neonatal mortality rates from the 1990 have barely changed while post-neonatal mortality began to drop mid-2000s. Infant and child mortality have been dropping and appear to account for the observed decline in under-five mortality rate observed for Uganda.

Figure 2: Mortality estimates from the various surveys



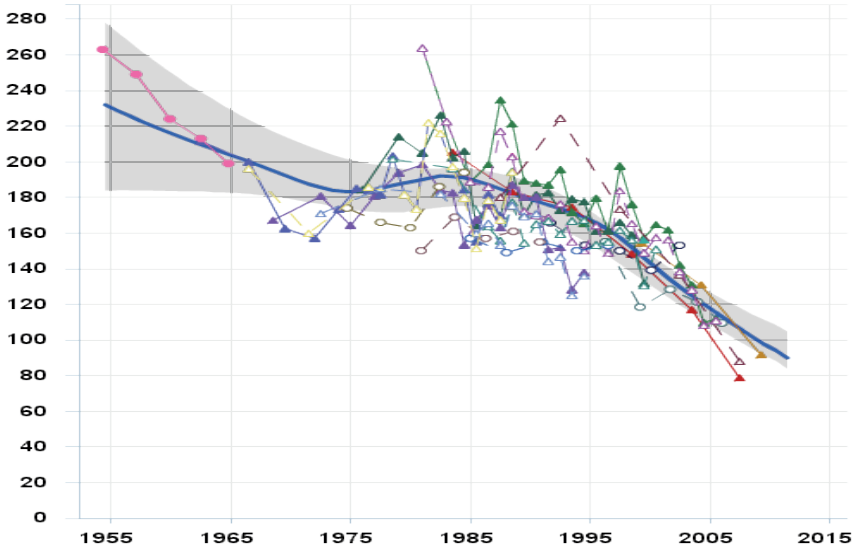
Source: UDHS

Figure 3 below shows under-five mortality trends based on estimates from series of DHS surveys by the UN Inter-agency Group for Child Mortality Estimation released September 2012 1. While there appears to be variations in the point estimates from the various surveys, the figure generally shows

[1] http://www.childmortality.org/

marked decline in under-five from around 1985 and sharper decline from early 2000s.

Figure 3: WHO/UN estimates of under-five mortality trends



Source: UN Inter-agency Group for Child Mortality Estimation, 2013

UNICEF /WHO estimates of long term trends based on data points from all surveys and censuses

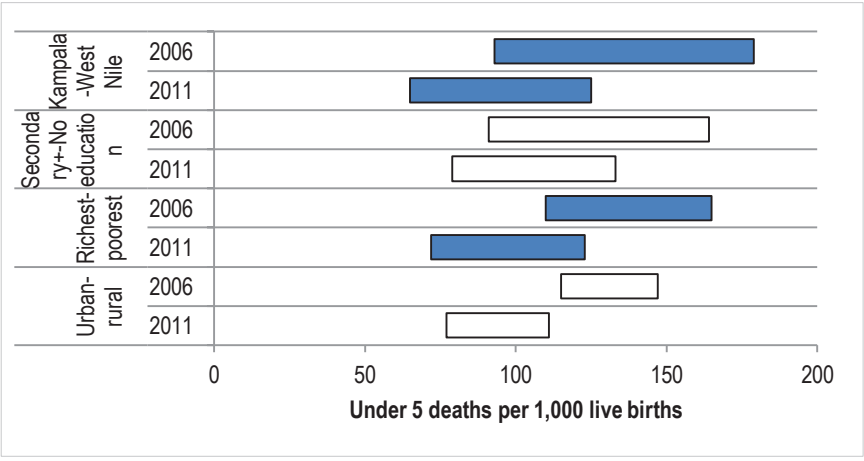
Good consistent picture from all data sources showing a marked decline

Current estimate is 90. Target is 56.

Equity

Figure 4 shows under-five mortality rates for Uganda for a period 1995-2006 and 2001-2011 by region, maternal education, wealth and residence. The gap in under-five mortality rate between Kampala and West Nile reduced between the surveys with a higher reduction in West Nile. Under-five mortality was lower among children whose mothers had secondary or higher education compared to those with no education.

Figure 4: Under-five mortality rate and gaps by residence, wealth, region and education, 1995-2006 and 2001-2011



Source: UDHS

Under-five mortality has decreased considerably for all groups

Gaps by region and education have narrowed considerably between the two surveys

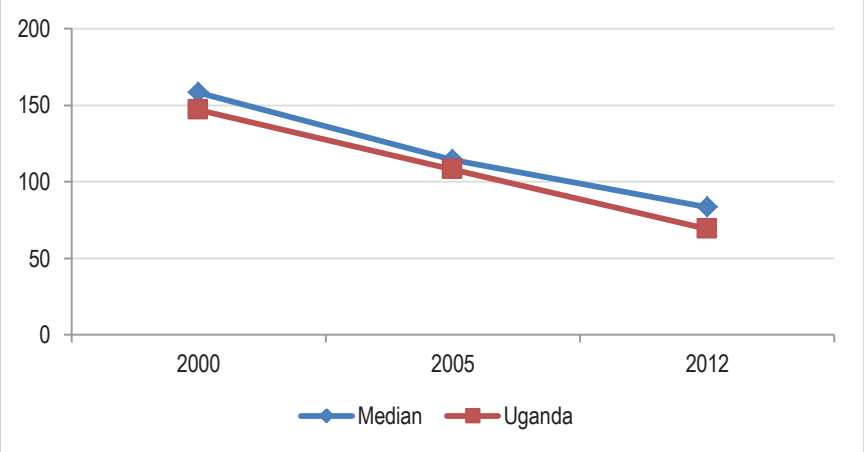
Between the surveys, there was a decrease in under-five mortality across all groups by mother's education, though more marked among those whose mothers had no education and hence a narrowing in the mortality gap between the two groups. With regard to wealth, there was a reduction in mortality rate among the richest and poorest in the two surveys but no change in the mortality gap. There was a reduction in mortality rate among the urban and rural in the

two surveys especially in the 2011 survey but no difference in the gap between the urban and rural populations.

Comparative analysis

Figure 5 shows the comparison of the child mortality decline in Uganda with the median of 10 countries in the region (Burundi, DR Congo, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Zambia, Zimbabwe). The figure shows that Uganda's mortality is slightly lower than in the group as a whole and continues to decline at a similar pace. Between 2000 and 2012, the child mortality rate was approximately halved. In all 3 years, Uganda had the fifth lowest mortality rate within the 11 countries.

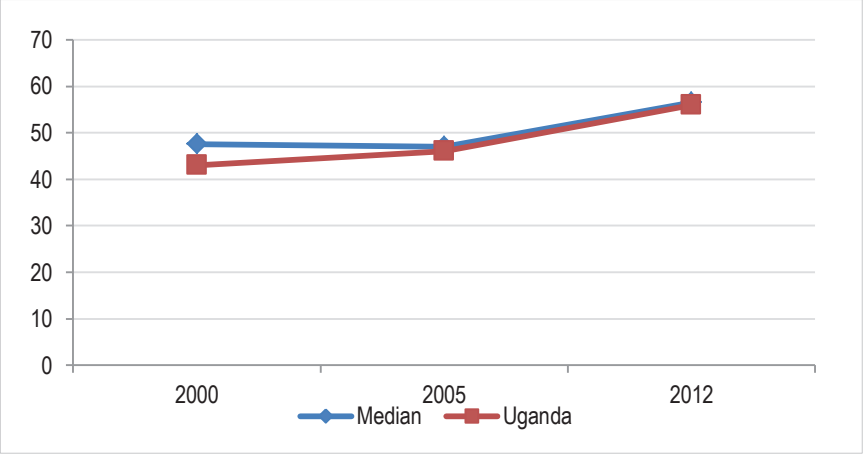
Figure 5: Child mortality per 1,000 live births in Uganda compared to median of 10 subregional countries



Source: UN Inter-agency Group for Child Mortality Estimation, 2013

Life expectancy in Uganda increased dramatically during the last decade. WHO estimated that in 2011 life expectancy for females and males were 57 and 54 years respectively, up from 47 and 45 years in 2000. This is due to major improvements in both child and adult mortality.

Figure 6: Life expectancy at birth in Uganda compared to median of 10 subregional countries



Source: WHO estimates

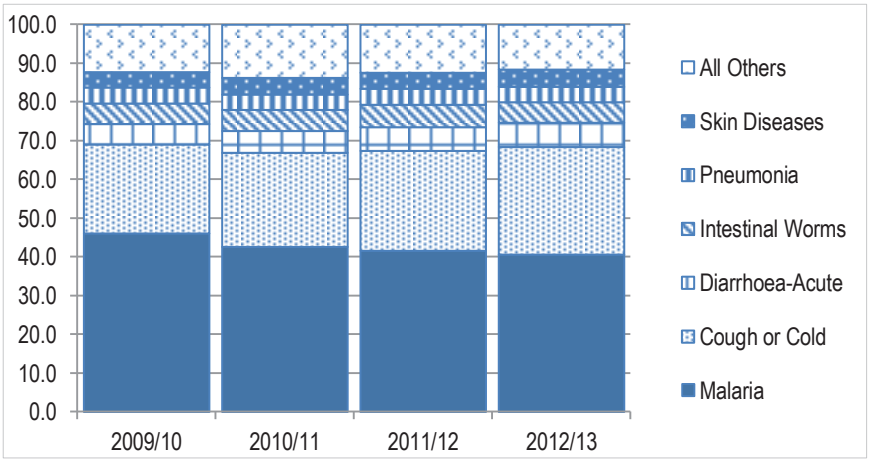
Other indicators:

Outpatient department (OPD) diagnoses

Analysis of outpatient diagnoses from the HMIS provide an indication of trends in morbidity over time; however, these results should be interpreted with caution as facilities do not use ICD-10 to code diagnoses. Changes in the code list as well as changes in the HMIS reporting forms are likely to affect the frequency of certain diagnoses over the years, particularly in 2011/12 due to the revision of reporting forms and the transition to DHIS 2.

Figure 7 shows outpatient diagnoses for children under five years as a proportion of all diagnoses for 2009/10 to 2012/13. Malaria retains the largest share of outpatient diagnoses among children under five years since 2009/10. The distribution of outpatient diagnoses shows that the relative share of malaria declined from 46.1% to 40.6% during 2009/10 to 2012/13. Cough and cold was the second most common diagnosis accounting for 27.8% in 2012/13, which was 22.9% in 2009/10. Acute diarrhea was the third most common diagnosis (6% in 2012/13, similar to previous years).

Figure 7: OPD diagnoses under 5, 2009/10 to 2012/13



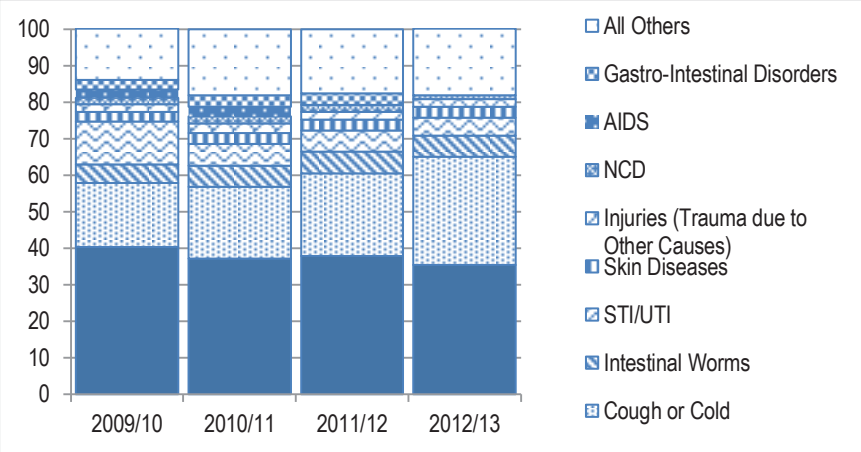
Source: HMIS

Malaria is the most common outpatient diagnosis for children under five across all years

Cough and cold were the second most common outpatient diagnoses for children

Figure 8 shows the outpatient diagnoses for persons five years and older for 2009/10 to 2012/13. Malaria was the leading cause in 2013 at 35%, which shows a drop from 40% in 2009/10, similar to the trend that was seen for children under five. Cough and cold was the second most common OPD diagnosis at 30%, and appears to be taking a successively larger proportion of diagnoses (18% in 2009/10). Intestinal worms account for 6% while sexually transmitted infections and urinary tract infections (often used to record a diagnosis of STI), accounted for 5% of diagnosis in 2013.

Figure 8: OPD diagnoses 5 years and above, 2009/10 to 2012/13



Source: HMIS

Malaria was the leading outpatient diagnosis for persons five years and above, as for children under five

Inpatient admissions and causes of death

Hospitals do not consistently use UCD-10 to certify and code diagnoses and causes of death. As with outpatient diagnoses, caution must be exercised in interpreting the trends over time as these are affected by changes in the code list and HMIS reporting forms over time, particularly in 2011/12 due to the revision of reporting forms and transition to DHIS 2.

Table 1 shows the leading causes of death among inpatients under the age of five. Malaria is consistently the leading cause of mortality in children under five though there is a decreasing trend from 41% in 2009/10 to 25% in 2012/13. Pneumonia and anemia were the second most common causes of death at 14% and 13% respectively. A change in the HMIs reporting forms changed the encoding of neonatal and perinatal conditions between 2011/12 and 2012/13; however, it appears that these conditions account for a larger proportion of deaths over time.

Table 1: Inpatient causes of death in children under five years, 2009/10 to 2012/13 (percent distribution)

	2009/10	2010/11	2011/12	2012/13
Malaria	40.9%	31.9%	34.8%	24.9%
Pneumonia	9.3%	11.7%	12.6%	13.6%
Anaemia	19.9%	15.6%	15.3%	12.7%
Perinatal Conditions (0 -7 days)	3.5%	7.1%	7.3%	9.1%
Neonatal Septicaemia	-	-	-	4.3%
Perinatal Conditions (8-28 days)	-	-	-	3.3%
Septicemia	3.1%	4.9%	3.5%	2.9%
Respiratory Infections (Other)	1.9%	2.6%	2%	2.8%
Severe Malnutrition (Kwashiorkor)	2.3%	2.8%	2.7%	2.5%
Diarrhoea – Acute	2.4%	2.3%	3.7%	2.5%
All other causes	16.8%	21.2%	18.2%	21.4%
Total	100%	100%	100%	100%

Source: HMIS

Table 2 shows the leading causes of death among inpatients five years and older. As for children under five years, malaria is consistently the leading cause of mortality, although the proportion has decreased considerably from 27% in 2009/10 to 13% in 2012/13. Tuberculosis is the second most common cause of death at 8% in 2012/13, while anaemia and pneumonia account for 7% each. It is notable that road traffic accidents account for 3% of inpatient deaths in 2012/13, while other injuries account for 4%. As noted above the trends must be interpreted with caution: AIDS accounted for 13% to 16% of inpatient deaths in 2009/10 to 2011/12, but due to a change in encoding has disappeared from the list in 2012/13. As well, other causes account for approximately half of all inpatient deaths.

Table 2: Inpatient causes of death in in persons five years and above, 2009/10 to 2012/13 (Percent distribution)

	2009/10	2010/11	2011/12	2012/13
Malaria	26.6%	19%	20.4%	12.8%
Tuberculosis	5.4%	6%	6.1%	8.1%
Anaemia	6.8%	5.5%	5.7%	6.7%
Pneumonia	5.2%	6.4%	6.7%	6.5%
Other Types Of Meningitis	2.1%	2.5%	-	4.3%
Injuries - Trauma Due To Other Causes	-	2.4%	2.1%	3.8%
Injuries - Road Traffic Accidents	2.1%	2.7%	2.7%	3.4%
Cardiovascular Diseases (Other)	-	-	2.1%	3.4%
HIV Related Psychosis	-	-	-	3%
Abortions	-	-	-	2.6%
All other causes	51.8%	55.7%	54.3%	45.4%
Total	100%	100%	100%	100%

Source: HMIS

Global estimates of causes of death

WHO and others estimate the overall cause of death patterns based on existing national data and statistical models. The models often use information from regional models and historical data from today's high-income countries.

According to WHO estimates, the leading causes of death among children under five years are neonatal causes both 2000 and 2011: preterm birth complications and birth asphyxia and trauma together accounted for one out of four deaths among children under 5 years in 2011. Lower respiratory tract infections, notably pneumonia, is the ranked as the most frequent single cause of death, behind almost every sixth child death.

The relative importance of preterm causes has increased since 2000, while the proportion of children dying from malaria, diarrhoea and HIV/AIDS seems to have decreased. Never the less, these three diseases still cause 28 per cent of all child deaths in Uganda.

In 2000 measles accounted for 6 per cent of child deaths. Eleven years later, measles was no longer on the list of the top then causes of child deaths.

Table 3: Leading 10 causes of death among children under 5 years in Uganda, WHO estimates (provisional)

	2000	2011
Lower respiratory infections	15.3	15.7
Preterm birth complications	11.6	14.4
Malaria	15.0	12.8
Birth asphyxia and birth trauma	7.6	10.4
Diarrhoeal diseases	12.2	9.2
HIV/AIDS	7.8	5.8
Neonatal sepsis and infections	3.1	4.5
Congenital anomalies	2.6	4.0
Protein-energy malnutrition	3.7	3.4
Syphilis	-	2.5
Measles	6.0	-
Other	15.2	17.3
Total	100.0	100.0

According to the estimates, HIV/AIDS is by far the most common cause of death among men and women in 2011. Other infectious diseases are also prominent. Both among women and men respiratory infections and diarrhoeal diseases are the 2nd and 3rd most frequent cause of death. Maternal conditions are the 5th most common cause of death among females aged 5 and over. Road accidents account for five percent of deaths among men, but less than 2 among females.

Table 4: Leading causes of death among persons 5 years and over in Uganda, 2011, WHO estimates (provisional)

	Men	Women
HIV/AIDS	18.8	17.3
Lower respiratory infections	6.6	6.8
Diarrhoeal diseases	5.4	5.2
Road injury	5.0	1.7
Stroke	4.6	4.0
Ischaemic heart disease	3.0	2.1
Protein-energy malnutrition	2.9	3.0
Tuberculosis	2.6	-
Interpersonal violence	2.4	-
Endocrine, blood, immune disorders	2.3	-
Maternal conditions	-	3.3
Cervix uteri cancer	-	1.7
Meningitis	-	1.4
Other	46.5	53.5
Total	100.0	100.0

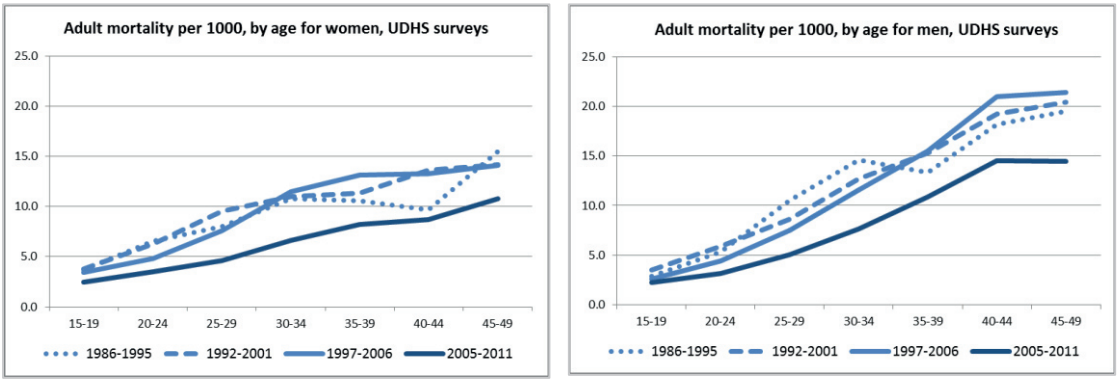
Adult mortality

The Uganda Demographic and Health Surveys (UDHS) give estimates on mortality among the adult population. Figure 9 shows the percentage of adults in each age group dying in four UDHS surveys. The most recent survey from 2011 shows lower mortality rates than the earlier surveys. The trend seems to be particularly prominent from the mid-twenties and apply both for women and men.

Men have a higher chance of dying than women for all age intervals, except for the adolescent years where the mortality rates are approximately the same for

both sexes. The mortality rates for 15-19 years old are 2 percent both for women and men in 2005-2011. The difference increases gradually to the age interval 45-50, where women have a mortality rate at 11 percent compared to 15 percent for men.

Figure 9: Adult mortality per 1000 by age for women and for men (UDHS).



3 REPRODUCTIVE, MATERNAL, AND CHILD HEALTH

3.1 MATERNAL & NEWBORN CARE

Main findings

- The progress towards improving antenatal and delivery care falls well short of the HSSIP targets. The maternal mortality decline is well-off MDG 5 pace.
- Virtually all pregnant women attend antenatal care at least once. However a much smaller proportion of pregnant women make the recommended 4 or more ANC visits. It is unlikely that the target of 60% for 4 or more ANC visits will be met.
- Institutional deliveries have been gradually increasing, but while there has been an upward trend, the HSSIP target of 90% in 2015 is out of sight. The situation is similar for the proportion of deliveries with skilled birth attendance.
- The facility survey showed virtually no change in the availability of basic obstetric services, with over half of the facilities experiencing stock-outs in essential life- saving commodities . Postnatal care for babies within 2 days of birth is very low. The availability of equipment for newborn care is available in only half of the facilities offering delivery services.
- The inequalities between urban and rural women and between the poorest and best-off women for ANC and institutional deliveries are large and persisting with little progress in closing the gaps.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Maternal mortality ratio (deaths per 100,000 live births)	435 (UDHS 2006 for 1999-2006)	438 (UDHS 2011 for 2004-11)	-	-	131	There appears to be no progress and the indicator is well off the target for 2015
ANC: pregnant women attending at least 4 times	47% (UDHS 2006 for 2001-06)	32% (HMIS) 48% (UDHS 2011 for 2006-11)	34% (HMIS)	31% (HMIS)	60%	There has been no progress, and 2015 target may not be achieved
IPT: pregnant women taking at least 2 doses	47% (HMIS) 32% (UMIS 2009 for 2007-09) 18% (UDHS 2006 for 2004-06)	43% (HMIS) 27% (UDHS 2011 for 2009-11)	44% (HMIS)	48.5% (HMIS)	80%	There appears to be no progress and the indicator is well off the target for 2015

Institutional delivery rate	33% (HMIS) 41% (UDHS 2006 for 2004-06)	39% (HMIS) 57% (UDHS 2011 for 2006-2011)	38% (HMIS)	41% (HMIS)	90%	There has been some progress, and but the 2015 target is unlikely to be met.
Emergency Obstetrics Services: HC IVs that provide EmOC (%)	23% (HMIS 2008-09)	24%	25%	36% (HMIS)	50%	Positive trend, on track to meet 2014/15 target
Other indicators						
Postnatal care (% of women receiving a postnatal checkup in the first two days after birth)	22.5% (HMIS) 26% (UDHS 2006 for 2004-06)	13.2% (HMIS) 33% (UDHS 2011 for 2009-11)	19.2% (HMIS)	29% (HMIS)		Increasing trend but coverage still low overall
Skilled birth attendance	40%	-	-	59%	60%	On track to meet target

Data sources and quality

- **Maternal deaths:** are a relatively rare event and this large samples need to studied to arrive at stable estimates. If not large enough samples are studied, estimates may have large margins of error and disaggregation by various socio-demographic or geographical dimensions may not be possible without compromising the quality of the estimates. In the DHS surveys questions were asked about the survival and cause of death of respondents' sisters to identify pregnancy-related deaths. The survey rates usually refer to a six-year period before the survey and therefore, it is not possible to assess recent trends in maternal mortality through these surveys.
- **Surveys and coverage:** UDHS 2006- 2011, MIS 2009, NHIS 2009/2010, Panel surveys, National Health Accounts 2012
- **The DHS surveys** are nationally representative and provide quality information on MNCH coverage indicators. Rates refer to 3 or 5 years before the survey. Sample sizes for regions are smaller, and regional estimates may have large sampling errors.
- **Health facilities reports (HMIS, mTRAC, surveillance):** provide annual data on health facility service provision and utilization. Assessment of HMIS data on reporting completeness and internal consistency, and comparison with the survey results, show that the quality is variable, especially for subnational levels.
- **Health facility assessments (SARA):** 2012 and 2013 provide information on service availability and readiness of antenatal and delivery services, and EmOC among other services.
- **Other data sources:** Supervision Report and MPDR report, Rapid assessment of RMNCH commodities and interventions (RAIC tool), ICCM medicine quantification study (ongoing), ICCM national review (ongoing), RH partner mapping 2012
- **Quality:** good for survey data at national level, but substantial uncertainty at regional level or when disaggregated along socio-demographic variables. Facility reports provide annual data but have variable quality, especially at subnational levels. HMIS data are also thought to be of poorer quality during the time period in 2011 and 2012when reporting forms were revised and the system transitioned to DHIS 2. However, a health facility record review of institutional deliveries (verification of facility source documents to determine consistency with reported values) conducted in June 2013 showed a verification factor of 1.00, indicating a near exact match between the number of deliveries recounted from the register and the number reported in the HMIS facility monthly report.

National trends

Maternal mortality ratio

Estimates from the most recent nationally representative survey show that maternal mortality in Uganda is still high at 438 maternal deaths per 100,000 live births. In the previous survey in 2006; the estimated maternal mortality ratio corresponding to a period 1995-2006 was 435 maternal deaths per 100,000 live births. The estimates and their confidence limits overlap indicating that there has been no real decline in maternal mortality ratio in the last twenty years. However, the 2010 WHO/UNICEF and World Bank estimates put maternal mortality ratio at 310 per 100,000 live births but still the levels of uncertainty are large and hence it is not possible to say whether maternal mortality has declined by this estimate.

Table 5: Maternal mortality ratio estimates from national surveys over and WHO model estimates.

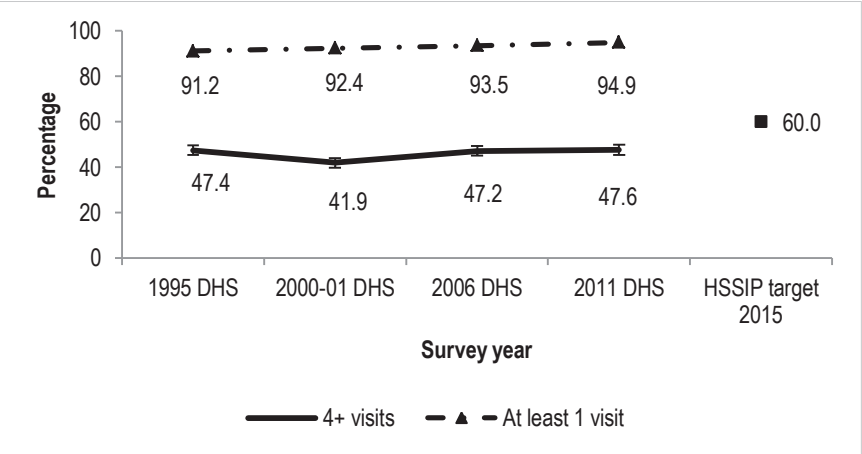
SOURCE	PERIOD	RATIO (95% CONFIDENCE INTERVAL)
UDHS 1995	1985-1995	527
UDHS 2000/01	1990-2000	505
UDHS 2006	1995-2006	435 (345-524)
UDHS 2011	2000-2011	438 (368-507)
WHO/UNICEF, UNFPA and World Bank estimates	2010	310 (200-500)

Antenatal care coverage

Figure 10 shows trends in ANC utilization over the years. Over 90% of pregnant women attend ANC at least once while pregnant and this proportion has not changed substantially since 1995 at 91.2% to 94.9% in 2011. However a much smaller proportion of pregnant women make the recommended 4 or more ANC visits while pregnant. This proportion has also not changed since 1995 at 47.4% to 47.6 in 2011.

The 2011 UDHS estimate is consistent with the HMIS results for the same year (47%). However, in recent years the HMIS shows a decline in ANC utilization to 34.2%,. This can in part be explained by the HMIS migration issues experienced in this time. With regard to timing of first ANC visit, estimates from UDHS 2011 show that about 65% of pregnant women go for their first ANC visit before 6 months of gestation. This is a slight improvement from 58% estimate from the 2006 DHS survey.

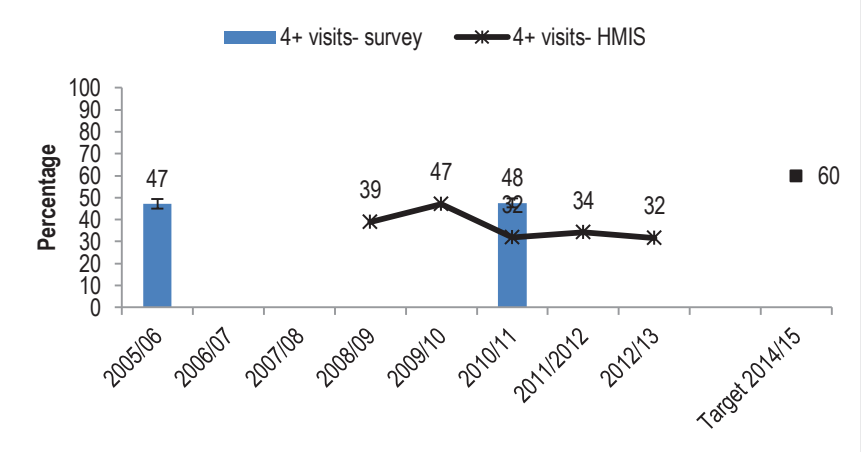
Figure 10: Antenatal care utilization trends



Almost all pregnant women make at least one ANC visit

Less than half (47.6%) make the recommended 4 or more ANC visits (UDHS 2011)

Figure 11: Target and trends in ANC four or more visits, UDHS and HMIS.



This graph uses both survey and HMIS data. No progress in ANC4 across the 2 UDHS surveys, and slight decline shown in HMIS which may be due to lower reporting completeness over past 2 years

It is unlikely that the target of 60% for 4 or more ANC visits will be met.

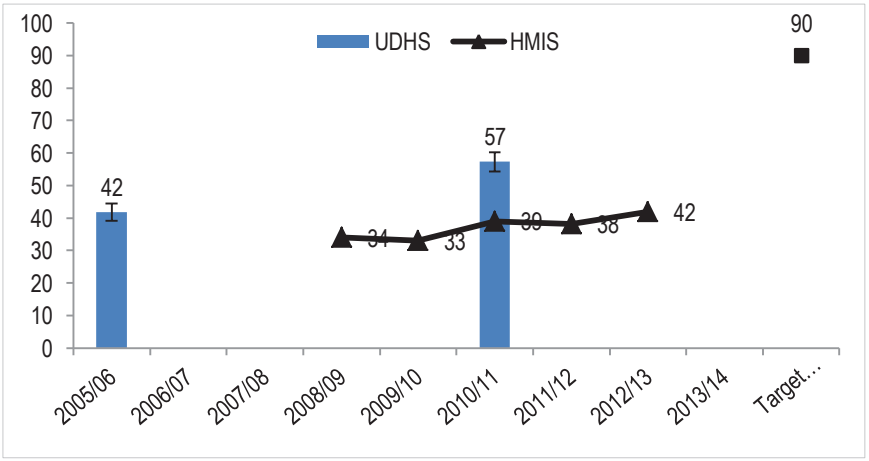
Intermittent Preventive Treatment (IPT in pregnancy)

IPT is recommended to be given twice a pregnancy (IPTp), using sulphadoxine/pyrimethamine to prevent malaria in pregnant women. The percentage of women receiving at least 2 doses of SP for IPTp has shown an increase since 2006 but appears to have stagnated since 2009/10 and currently stands at 49% based on HMIS data. However, this is still far below the 2014/15 target of 80%. Further information on IPT2 can be found in Section 4.1.

Institutional delivery rate

Figure 12 below shows the trends in the proportion of women who delivered in a health care facility as estimated from UDHS surveys and HMIS. It can be seen that there has been an increase in health facility based deliveries. This has improved from about 37% in 2000/01 to 42% in 2006 to 57% in 2011. The HMIS shows lower levels of delivery rates from 34% in 2008/9 to 42% in 2012/13, but there is also a gradual increase. However, this is still far below the HSSIP target of 90% for 2014/15. Similarly, there has been an increase in the proportion of skilled birth attendance (SBA) from 42.6% in 2006 to 59.3% in 2011.

Figure 12: Target and trends in institutional deliveries, UDHS and HMIS.



Gradual increase in health facility delivery rate, as seen in both DHS and HMIS results

Health facility deliveries from HMIS are lower than from DHS, possibly due to deliveries in private facilities not being captured

Still far below the target of 90%

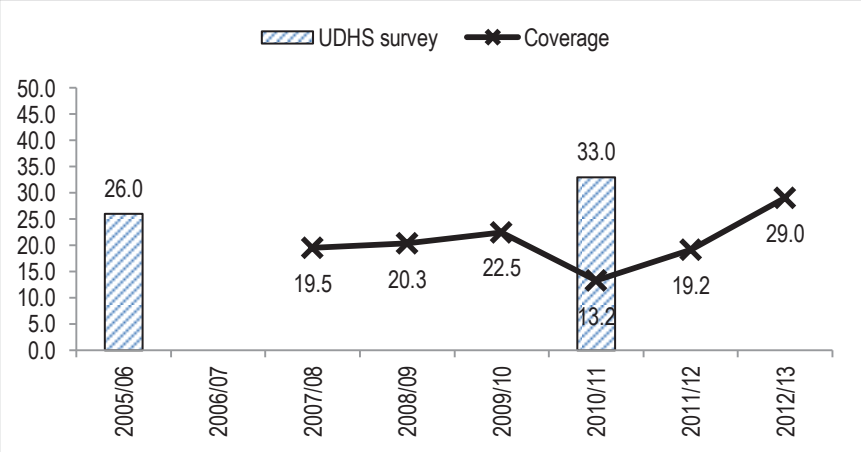
Tetanus Toxoid

To help prevent neonatal tetanus, it is recommended that pregnant women get two doses of tetanus toxoid. In 2011, only 55.5% of pregnant women received two doses of tetanus toxoid. Estimates from the previous survey, 2006, show that this proportion has hardly changed as approximately 51% of pregnant women got two doses of tetanus toxoid.

Postnatal care

Adequate postnatal care is essential for early detection of complications and referral to reduce perinatal mortality. Figure 13 shows trends in postnatal care from DHS and HMIS. While both data sources indicate a slight increase in postnatal care in the past few years, less than half of women receive a postnatal checkup in the first two days after birth.

Figure 13: Trends in postnatal care, UDHS and HMIS.



Equity

Since single antenatal visit is very high at over 90% there are minimal differences by place of residence. However, for 4 or more ANC visits, there are significant differences in coverage by place of residence. About 57% of pregnant women in urban areas get 4 or more ANC visits compared to 46% among rural women. However since the majority of women in Uganda reside in rural areas, the low coverage in rural areas tends to bring down the national average.

Figure 14: Antenatal care attendance (4+) by place of residence, UDHS 2011

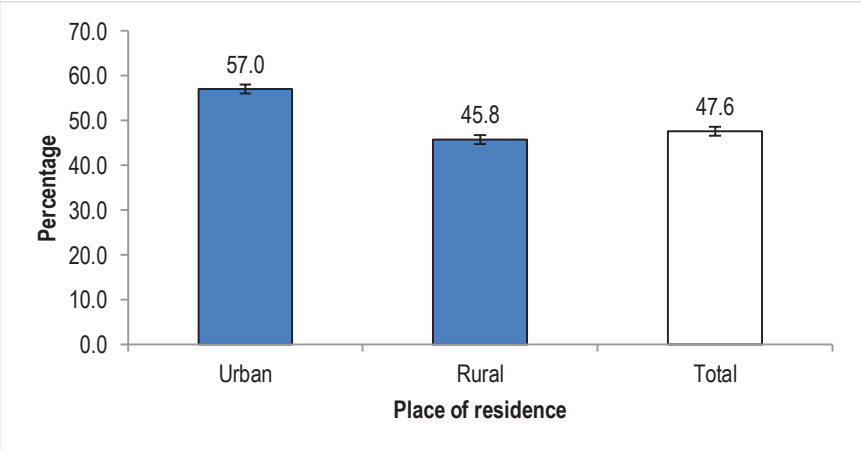


Figure 15 shows antenatal care four or more visits by wealth status index. About 43% of pregnant women in the poorest wealth quintile received 4 or more ANC visits during the last pregnancy before the survey compared to 59% among women in the wealthiest quintile.

Figure 15: Antenatal care attendance (4+) by wealth status, UDHS 2011

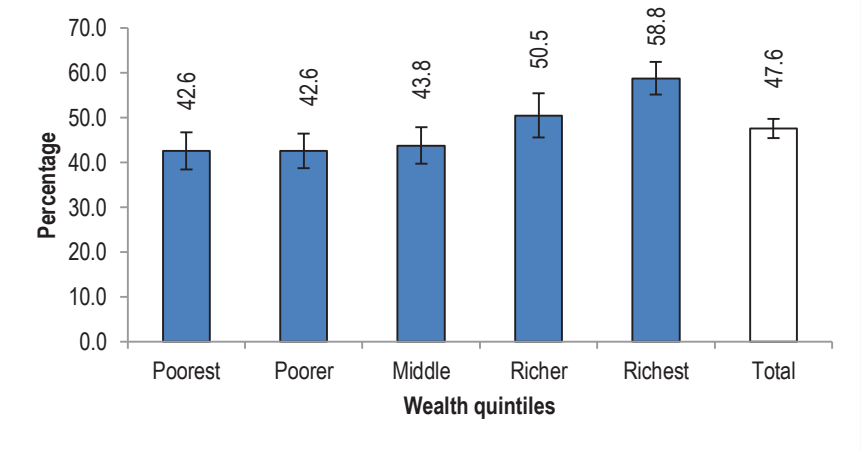
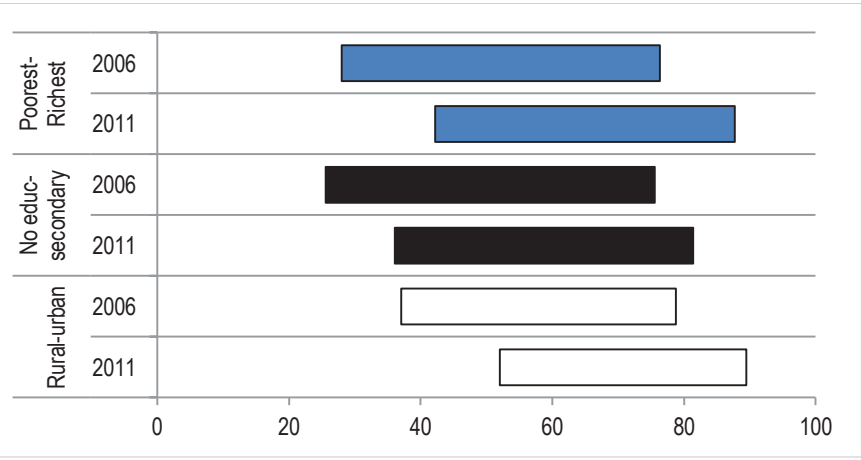


Figure 16 shows equity gaps in institutional deliveries by wealth, education and place of residence using estimates from the two most recent national surveys. While the proportion of pregnant women delivering in a health care facility between the two surveys improved for both the poorest and richest women, the gap between the poorest and richest did not reduce appreciably. Similarly, the proportion of women delivering in a health care facility between 2006 and 2011 increased among those with no education and those with secondary or higher education. Also, the proportion of health facility based deliveries increased among both rural and urban women. From an equity perspective, however, the gaps between rural and urban and no education and secondary education level women did not change between the two surveys. A significantly smaller proportion of women with poorer social outlook deliver in health care facilities compared to their socially better off counterparts.

Figure 16: Equity: Gaps in health facility deliveries along wealth, education and place of residence



Source: UDHS

Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Antenatal care-services

Figure 17 shows the percentage of facilities offering antenatal care services in 2012 and 2013. Approximately 70% of health facilities are providing antenatal care services, including IPT, iron supplementation, folic acid supplementation, and slightly fewer offering tetanus toxoid vaccination (64%) and monitoring of hypertensive disorder (63%).

Figure 17: Service availability: Percentage of facilities offering antenatal care services (N_{2012} = 95, N_{2013} = 209)

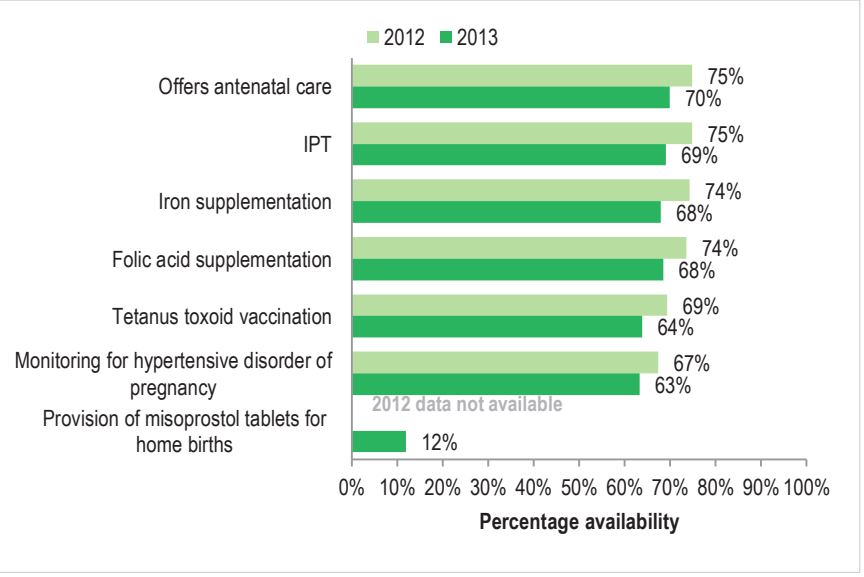
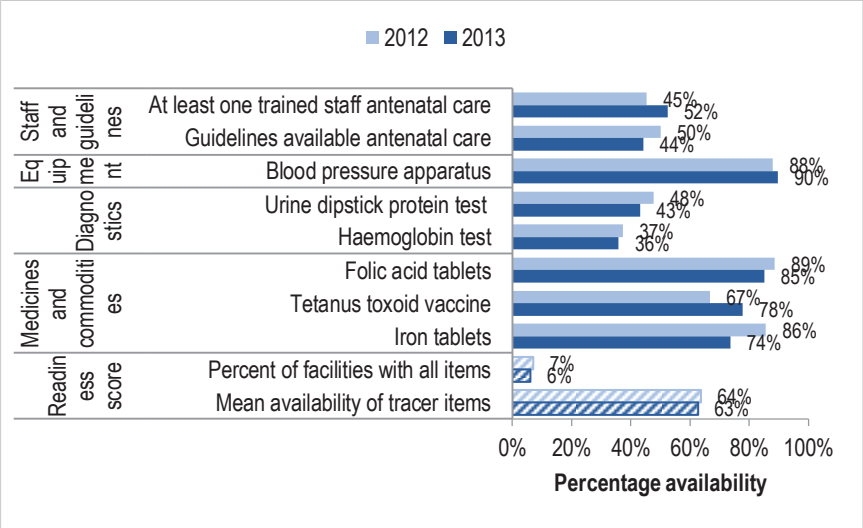


Figure 18 shows the percentage of facilities offering antenatal care services that have tracer items for antenatal care present in the facility on the day of the assessment. Among the facilities offering ANC services, only about half (52%) had a staff member trained in ANC in the preceding two years with slightly fewer having guidelines as well (44%). Blood pressure equipment was available in almost all of the facilities, but only about a third 36% could conduct a haemoglobin test and 43% had urine dipstick. This is comparable to the situation in 2012. Medicines (folic acid and iron tablets) were available in 85% and 74% of facilities respectively. Only 6% of facilities had all 8 of the tracer items required to deliver ANC services adequately.

Figure 18: Service readiness: Percentage of facilities offering antenatal care services that have tracer items. (N_{2012} = 81, N_{2013} = 156)

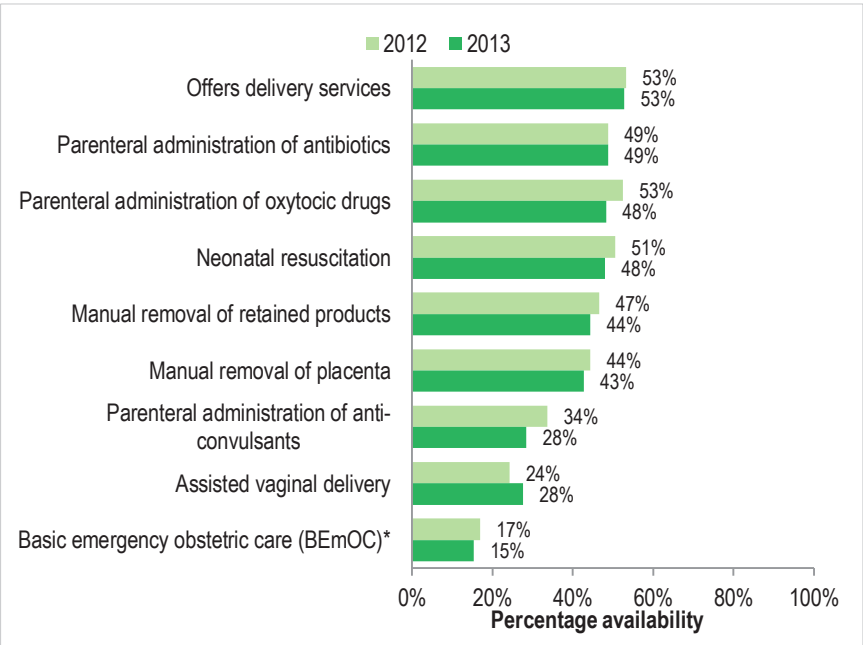


Basic obstetric care-services

Figure 19 shows the percentage of facilities offering basic obstetric care services. Overall , about half of health facilities offered normal delivery services (53%) in 2013 which remains unchanged from 2012. Among those, only 15% offered all 7 interventions for basic emergency obstetric care. Parenteral administration of anti-convulsants was available in only 28% of facilities. There has been virtually no change since 2012.

Table 6 provides a more detailed breakdown of the results by facility type and managing authority, which shows that basic emergency obstetric care services are primarily offered in the HC IIIs and above.

Figure 19: Service availability: Percentage of facilities offering basic obstetric care services (N_{2012} = 95, N_{2013} = 209)



* Facility offers all seven interventions for basic emergency obstetric care (parenteral administration of antibiotics, oxytocic drugs, anticonvulsants, manual removal of placenta, manual removal of retained products, assisted vaginal delivery, and neonatal resuscitation).

Table 6: Service availability: Percentage of facilities offering basic obstetric care services by facility type and managing authority.

	FACILITY TYPE				MANAGING AUTHORITY		
	RRH	GENERAL HOSP & HC IV	HC III	HC II	PUBLIC	PRIVATE	TOTAL
Offers delivery services	100%	99%	82%	22%	54%	50%	53%
Parenteral administration of antibiotics	100%	99%	77%	18%	50%	47%	49%
Parenteral administration of oxytocic drugs	100%	99%	75%	18%	47%	50%	48%
Parenteral administration of anti-convulsants	100%	75%	47%	5%	31%	24%	28%
Assisted vaginal delivery	77%	76%	40%	8%	26%	30%	28%
Manual removal of placenta	100%	99%	70%	11%	44%	41%	43%
Manual removal of retained products	100%	97%	73%	13%	45%	44%	44%
Neonatal resuscitation	100%	99%	78%	16%	50%	44%	48%
Basic emergency obstetric care (BEmOC)*	77%	58%	18%	4%	13%	20%	15%
Total number of facilities	13	34	68	94	138	71	209

* Facility offers all seven interventions for basic emergency obstetric care (parenteral administration of antibiotics, oxytocic drugs, anticonvulsants, manual removal of placenta, manual removal of retained products, assisted vaginal delivery, and neonatal resuscitation).

Figure 20 shows the percentage of facilities offering normal delivery services that have tracer items for basic obstetric care present in the facility on the day of the assessment. Only about half of the facilities had at least one staff who had received training in safe motherhood in the last 2 years. Only about half(53%) of the facilities offering delivery services had a neonatal bag and mask and 31% a suction apparatus, which reduced considerably in 2013, compared to 2012. In general, availability of essential medicines and commodities for delivery services improved, with a considerable improvement in availability of injectable oxytocin from 60% to 86%, and in skin disinfectant from 78% to 100%. Overall service readiness was comparable between 2012 (63%) and 2013 (66%), but the percentage of facilities with all tracer items remains very low. Table 7 shows more detailed results on availability of basic obstetric care tracer items by facility type and managing authority.

Figure 20: Service readiness: Percentage of facilities offering basic obstetric care services that have tracer items. (N_{2012} = 67, N_{2013} = 126)

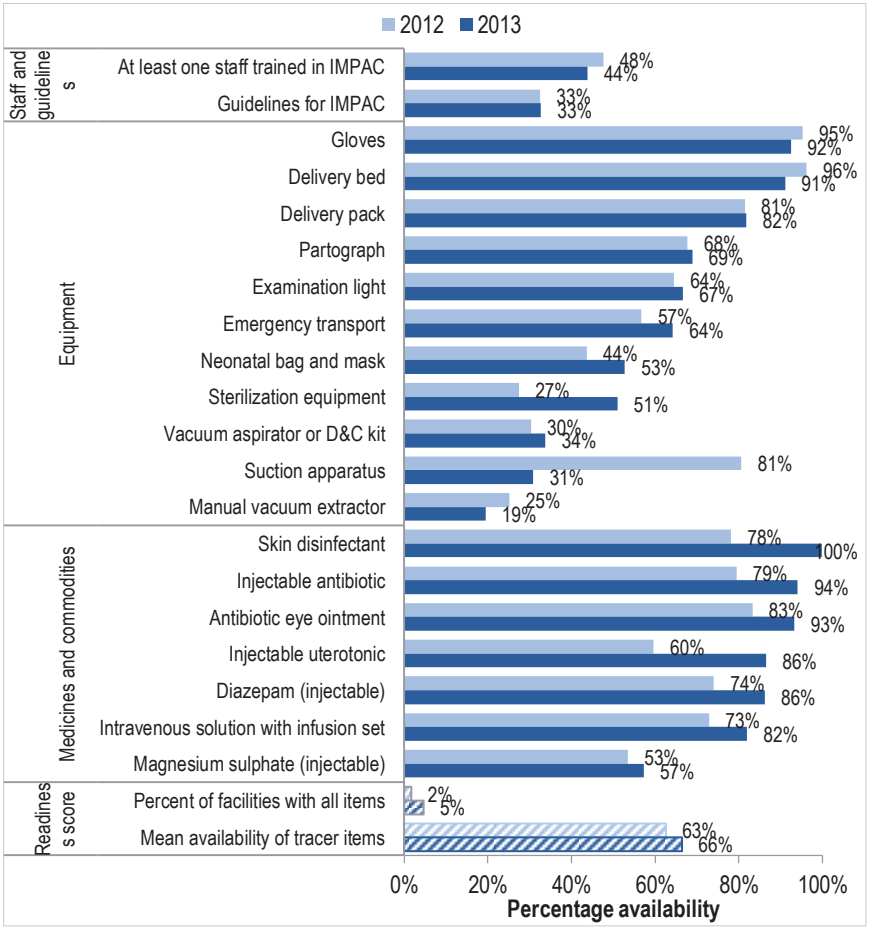


Table 7: Service readiness: Percentage of facilities offering normal delivery services that have tracer items for basic obstetric care present in the facility on the day of the assessment by facility type and managing authority.

	FACILITY TYPE				MANAGING AUTHORITY		
	RRH	GENERAL HOSP & HC IV	HC III	HC II	PUBLIC	PRIVATE	TOTAL
STAFF AND GUIDELINES							
Guidelines for IMPAC	77%	26%	35%	32%	28%	42%	33%
At least one staff trained in IMPAC	62%	65%	42%	29%	47%	38%	44%
EQUIPMENT							
Emergency transport	85%	58%	72%	51%	61%	70%	64%
Sterilization equipment	92%	97%	36%	43%	41%	69%	51%
Examination light	38%	75%	67%	57%	57%	84%	67%
Delivery pack	92%	98%	86%	55%	80%	85%	82%
Suction apparatus	85%	62%	25%	15%	30%	32%	31%
Manual vacuum extractor	62%	30%	17%	14%	9%	37%	19%
Vacuum aspirator or D&C kit	62%	81%	23%	15%	30%	41%	34%
Neonatal bag and mask	92%	78%	50%	33%	55%	49%	53%
Delivery bed	92%	98%	94%	78%	92%	90%	91%
Partograph	92%	82%	69%	56%	68%	71%	69%
Gloves	100%	83%	93%	100%	88%	100%	92%

MEDICINES							
Antibiotic eye ointment	100%	99%	94%	85%	96%	88%	93%
Injectable uterotonic	100%	98%	85%	78%	82%	95%	86%
Injectable antibiotic	100%	99%	98%	80%	91%	100%	94%
Magnesium sulphate (injectable)	100%	71%	67%	18%	59%	53%	57%
Diazepam (injectable)	100%	99%	94%	53%	84%	90%	86%
Skin disinfectant	100%	99%	100%	100%	100%	100%	100%
Intravenous solution with infusion set	100%	99%	84%	58%	77%	90%	82%
SERVICE READINESS							
Percent of facilities with all items	0%	7%	3%	7%	1%	11%	5%
Mean availability of tracer items	87%	80%	67%	52%	64%	71%	66%
Total number of facilities	13	33	59	21	83	43	126

Comprehensive obstetric care-services

Figure 21 shows the percentage of facilities offering caesarean section and blood transfusion by facility type in 2012 and 2013. About half of hospitals and HC IVs offered blood transfusion in both years(46%). The percentage of hospitals and HC IVs offering Caesarean section appears to have increased from 45% to 77%; however, these results should be interpreted with care since the sample size for this subgroup was not large in 2012.

Figure 21: Service availability: Percentage of facilities offering comprehensive obstetric care services (N_{2012} = 95, N_{2013} = 209)

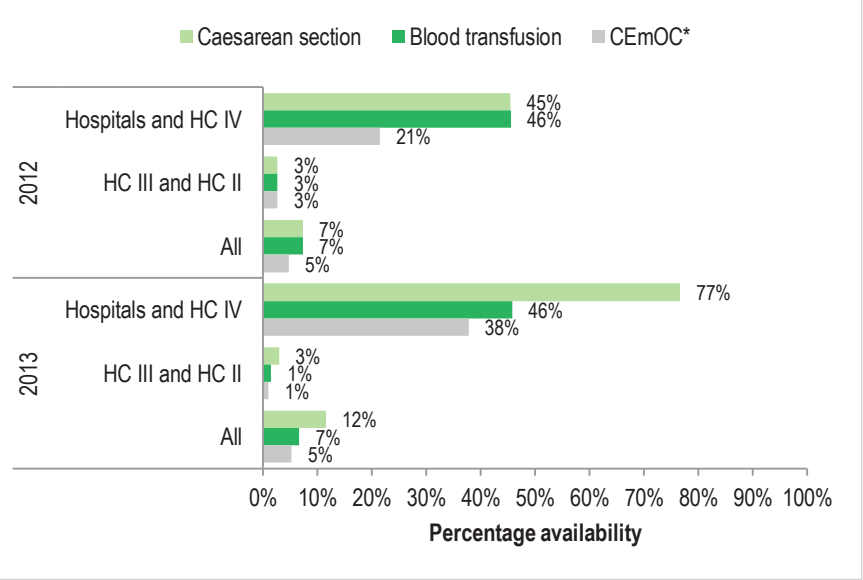
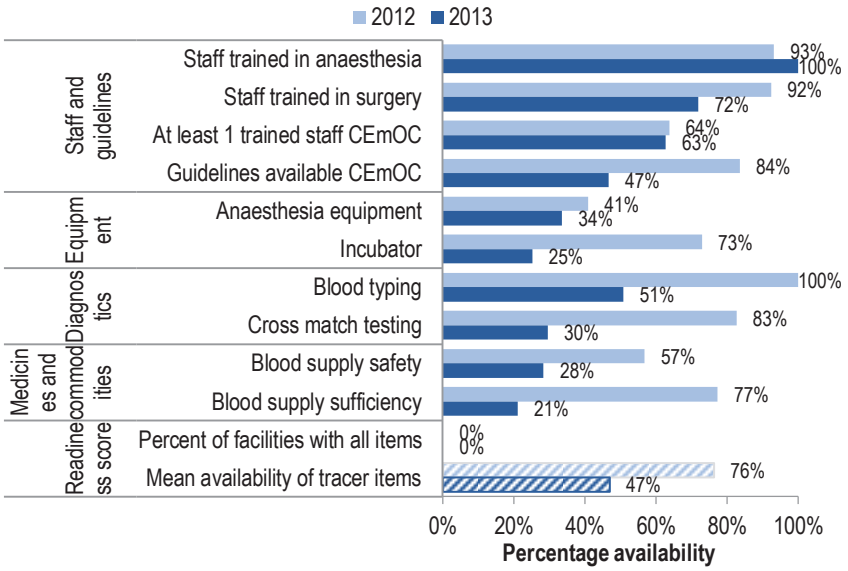


Figure 22 shows the percentage of facilities offering Caesarean section that have tracer items for comprehensive obstetric care present in the facility on the day of the assessment. Note that this consists almost entirely of HC IVs and hospitals. No facilities had all items present in either year. The results appear to show a decrease in availability of incubator, blood typing and cross match testing

capacity, as well as in safety and sufficiency of blood supply. However, this could be partly due to the limited sample size in the 2012 assessment.

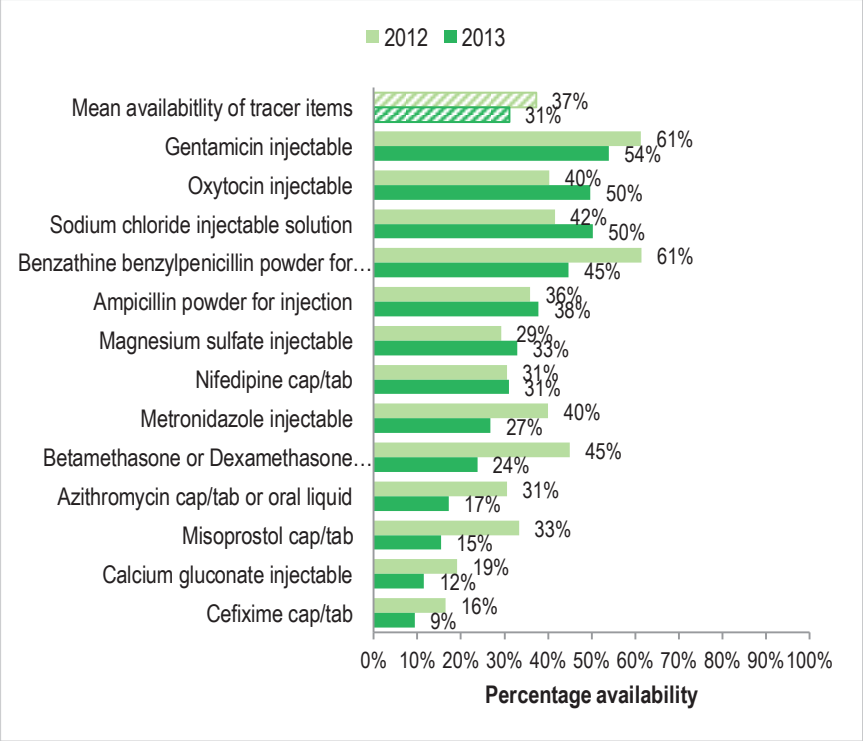
Figure 22: Service readiness: Percentage of facilities offering comprehensive obstetric care services that have tracer items. (N2012 = 13, N2013 = 39)



Essential medicines for mothers

Figure 23 shoves the availability of essential tracer medicines for mothers at health facilities in Uganda, both in 2012 and 2013. On average 31% of the medicines were available at the health facilities in 2013. There has been a decrease in the availability of benzathine benzylpenicillin powder for injection and betamethasone/dexamethasone, as well as misoprostol.

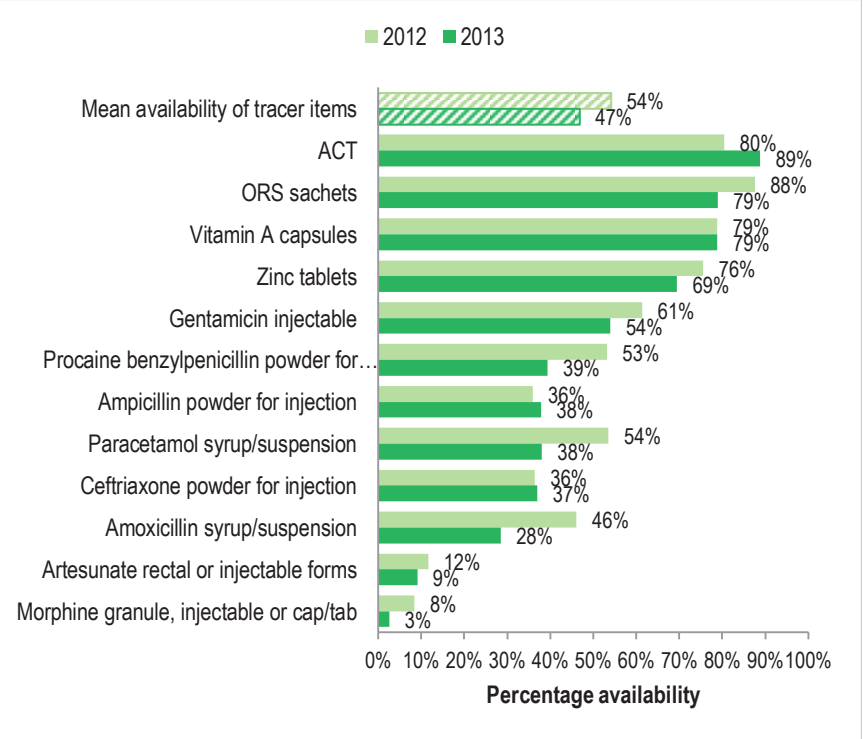
Figure 23: Percentage of facilities that have essential tracer medicines for mothers. (N_{2012} = 95, N_{2013} = 209)



Essential medicines for children

Figure 24 shoves the availability of essential tracer medicines for children at health facilities. in 2012 and 2013. On average 47% of the tracer medicines were available at the health facilities in 2013. There has been a decrease in the availability of paracetamol and amoxicillin syrup/suspension.

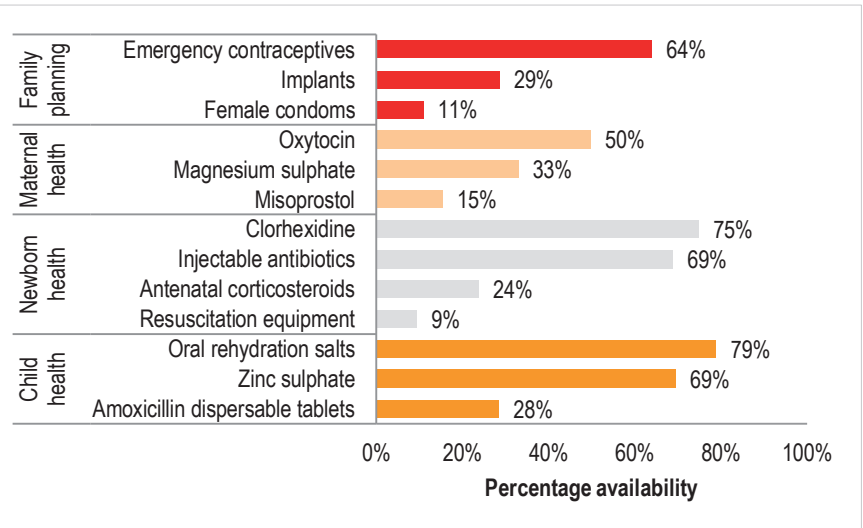
Figure 24: Percentage of facilities that have essential tracer medicines for children. (N_{2012} = 95, N_{2013} = 209)



Life-saving commodities

Thirteen commodities aimed at saving the lives of women and children have been recommended by the Commission on Life-Saving Commodities for women and children. The commodities have been chosen because they are effective, reasonably prized and often neglected. Figure 25 gives an overview of the availability of these commodities in health facilities in Uganda.

Figure 25: Percentage of facilities that have Life-Saving commodities for women and children in 2013. (N = 209)

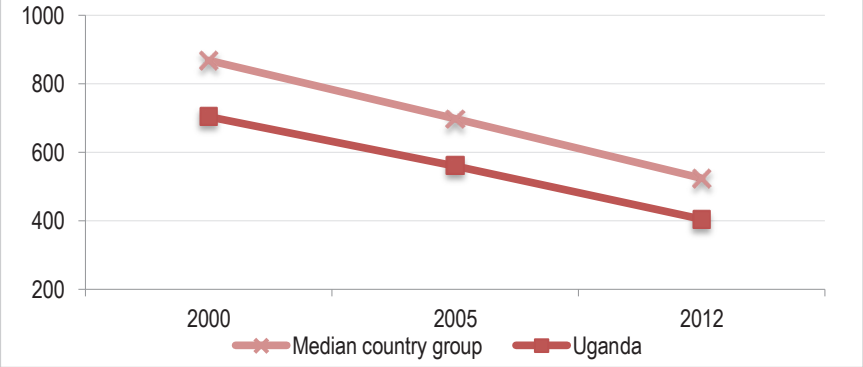


Comparative analysis

Maternal mortality ratio

UN/WHO estimates of the trends of maternal mortality take into account all data sources, but rely heavily on statistical modeling, as there are many data gaps. Figure 26 shows the maternal mortality ratio for Uganda and the median of nine peer countries in the subregion. Uganda's maternal mortality ratio is estimated to have declined from just over 700 in 2000 to just over 400 per 100,000 live births in 2012. This implies an annual rate of decline of 4.6% which is not far from the MDG pace of 5.5% per year. Uganda is doing better than the median of 9 countries in the subregion (Burundi, DR Congo, Ethiopia, Kenya, Mozambique, Malawi, Rwanda, Tanzania, and Zambia), with maternal mortality ratio approximately 20% lower than the subregional median. It has to be noted that uncertainty ranges surrounding these estimates are very large, due to the paucity of high quality data.

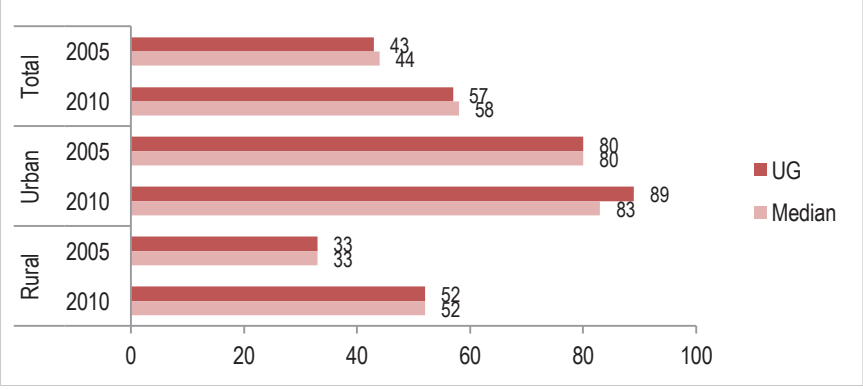
Figure 26: Maternal mortality ratio, 2000, 2005 and 2012



Source: UN/WHO estimates

Figure 27 shows a comparison of the proportion of births attended by a doctor, nurse or midwife for Uganda with the median of 10 subregional countries (Burundi, DR Congo, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Zambia, Zimbabwe) of which four border Uganda. The median year of the first survey (DHS or MICS) was 2005, the second survey 2010. All coverage figures refer to the five year period before the survey. Uganda shows very similar progress on SBA coverage to the median of subregional countries. Total coverage increased by 14% between the two time periods for Uganda as well as for the subregional group. Uganda appears to have made more progress in increasing coverage in urban areas compared to the group, whereas the coverage rates and change in coverage between the two time periods was identical between Uganda and the peer group median.

Figure 27: Skilled birth attendance trends(%), Uganda compared with subregional countries (median), 2005-2010



Source: DHS and MICS

3.2 FAMILY PLANNING

Main findings

- Uganda is making gradual progress towards its fertility and family planning targets. Contraceptive prevalence has increased since 2006 although there still remain large equity gaps by region, wealth, and education level.
- An increase is seen in the availability of contraceptive commodities such as injectable contraceptives (from 69% to 94%) and combined oral contraceptive pills (from 63% to 84%) between 2012 and 2013.
- However, Uganda remains one of the highest fertility countries in the subregion, and also has one of the highest rates of unmet need for family planning.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Contraceptive prevalence rate	24% (UDHS 2006)	33%	30% (UDHS 2011)	-	40%	Good progress from baseline but far below target
Other indicators						
Unmet need for family planning	41%	-	-	34%	20%	Progress has been made but still far from target
Adolescent fertility rate	24%	-	-	18%	15%	Good progress, close to attaining target

Data sources and quality

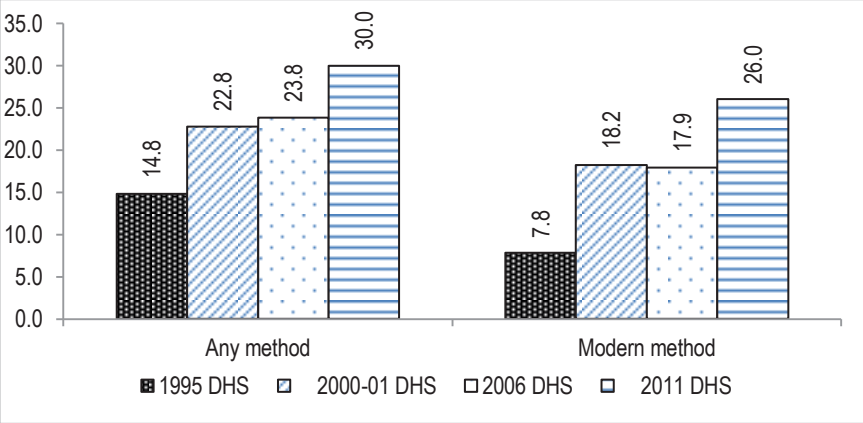
- **Surveys:** The DHS surveys are nationally representative surveys that provide detailed information on fertility and family planning indicators at the national and sub-national and by key socio-demographic characteristics. However sample sizes are small when estimates are presented by the various characteristics resulting into substantial sampling errors.
- **Health facility assessment (SARA):** 2012 and 2013 provide information on trends in readiness for health care facilities to provide family planning services
- **Quality**: Nationally the sample is adequate, but there is substantial uncertainty at regional level.

National trends

Contraceptive prevalence

Fertility preferences change over time. Therefore an important indicator of programme performance is the extent to which women who need contraceptives, actually receive them. Results from the 2011 DHS survey showed that 30% of married women had their need for family planning satisfied. These estimates show an increasing trend given previous estimates as shown in Figure 28, though the increase between the 2000 and 2006 survey was negligible.

Figure 28: Percentage of currently married women age 15-49 with met need for family planning



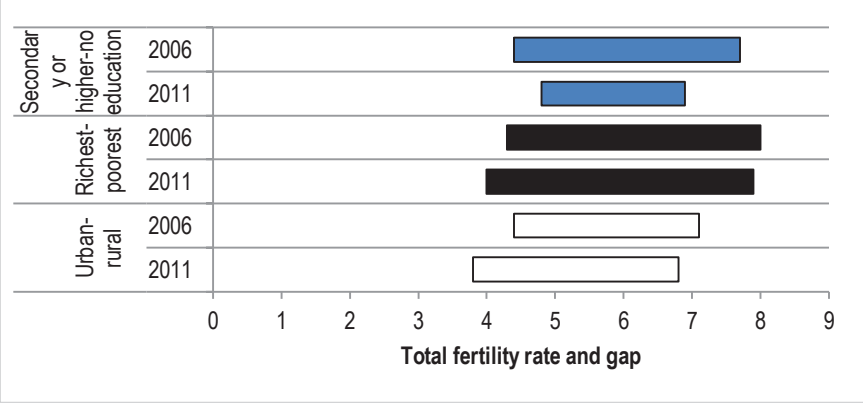
Source: DHS

Use of modern contraceptives has increased most during 2000 and 2006

Equity

Estimates from the most recent national survey-UDHS 2011, show that every women would have on average 6.2 children going by the age-specific rates of the preceding three years. The total fertility rate has declined slightly from 6.7 and 6.9 children per woman in 2006 and 2000 respectively. Total fertility rate is generally higher among women with no or lower education, the poorest and rural residents. Between the 2006 and 2011 survey, total fertility rate among women with secondary education slightly increased from 4.4 to 4.8 while among those with no education total fertility rate decreased from 7.7 to 6.9. The gap between women with secondary and those with no formal education narrowed down in 2011 compared to 2006.

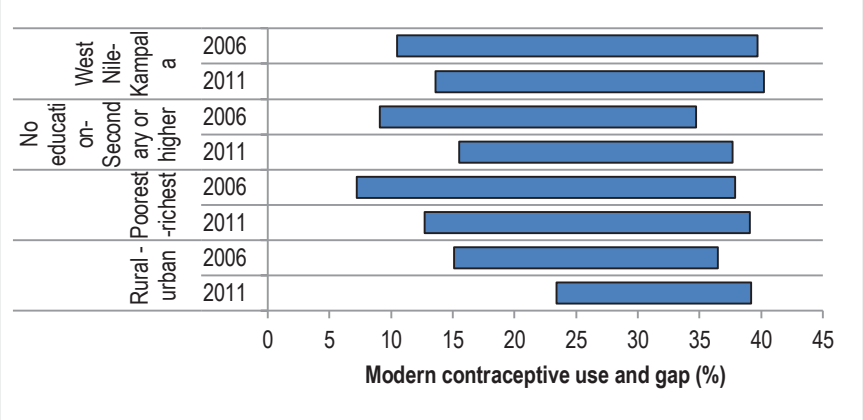
Figure 29: Equity gaps in total fertility rates, 2004/06 and 2009/2011



Source: DHS

Figure 30 shows equity analysis along regional (best and worst regions); educational, wealth and place of residence. Modern contraceptive use in Kampala didn't change between 2006 and 2011 while that in West Nile increased slightly in 2011 compared to 2006. The gap between Kampala and West Nile only reduced slightly in the interval. Contraceptive use among women with no education and those with secondary or higher education increased between 2006 and 2011 but the gap between the two groups did not change substantially over the period. Modern method contraceptive use among the poorest increased between the two surveys but there was no change among the richest and effectively the gap between the poor and rich slightly decreased. Similarly, contraceptive use among the rural and urban women between the two surveys increased but more so among the rural women leading to a narrowing of the gap between the rural and urban women.

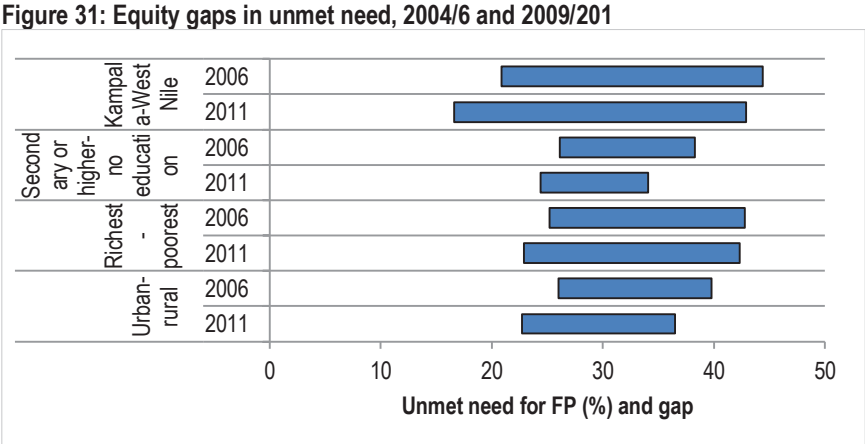
Figure 30: Equity Gaps in modern contraceptive use, 2004/6 and 2009/2011



Source: DHS

The unmet need for contraception represents the proportion of married women who would not want to get pregnant but are not using a method of contraception. Figure 31 shows the equity gaps in unmet need for family planning by region, wealth, education and place of residence. By region, we compare Kampala and West Nile and it is clear there is a huge difference in unmet need for family planning with West Nile having a higher proportion of women with unmet need. While the unmet need reduced between 2006 and 2011, the unmet need gap between the two regions didn't change appreciably. Unmet need for both women with no education and those with secondary education reduced over the period with a higher reduction among those with no education and hence a reduction in the equity gap. There was sizeable reduction among the richest, rural and urban women but with little reduction in the gap between rich and poor and rural and urban women.

Figure 31: Equity gaps in unmet need, 2004/6 and 2009/201



Source: DHS

Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Family Planning-services

Figure 32 shows the percentage of facilities offering family planning services in 2012 and 2013. Almost all (92%) of health facilities are providing FP services. About 8 out of 10 health facilities offer injectable contraceptives, combined oral contraceptives and male condoms. Only 14% of health facilities provide female condoms (when in stock).

Figure 32: Service availability: Percentage of facilities offering family planning services (N_{2012}= 95, N_{2013} = 209)

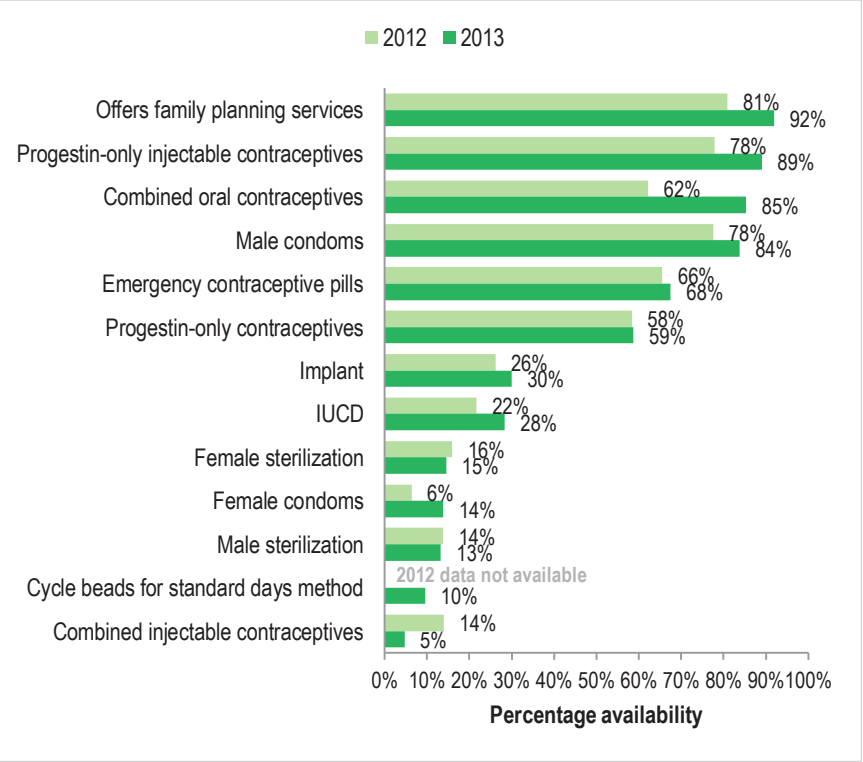
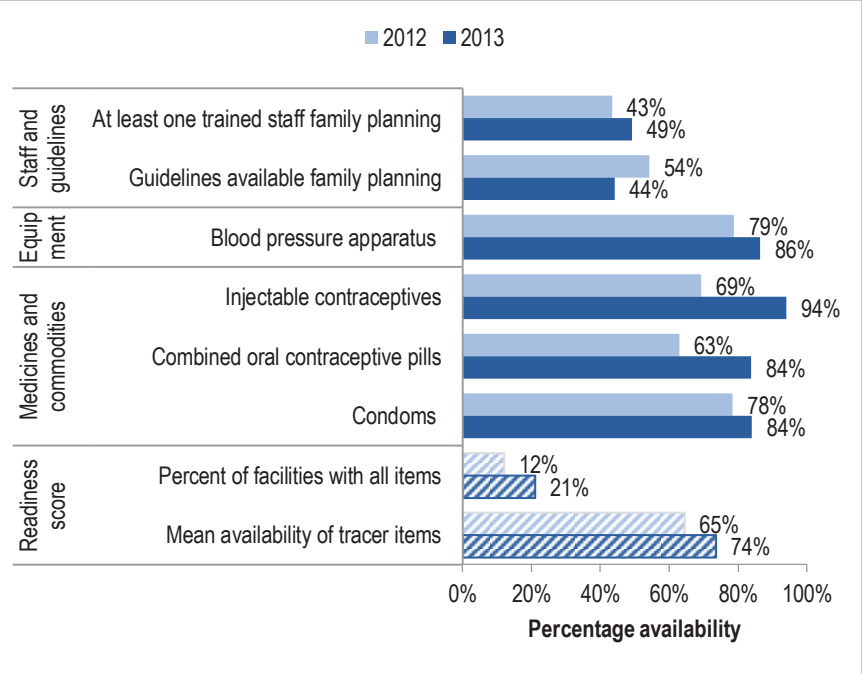


Figure 33 shows the percentage of facilities offering FP services that have tracer items for FP present in the facility on the day of the assessment. Availability of FP commodities appears to have increased since 2012, with availability of injectable contraceptives increasing from 69% in 2012 to 94% in 2013, and for combined oral contraceptive pills from 63% to 84%. Availability of FP guidelines and presence of staff trained in FP in the preceding two years remained low at under 50%.

Figure 33: Service readiness: Percentage of facilities offering family planning services that have tracer items. (N_{2012} = 78, N_{2013} = 191)



Adolescent health-services

Figure 34 shows the percentage of facilities offering adolescent health services in 2012 and 2013. Adolescent health services are offered in 59% of facilities, and 60% offer HIV testing and counseling services to adolescents.

Figure 34: Service availability: Percentage of facilities offering adolescent health services (N_{2012} = 95, N_{2013} = 209)

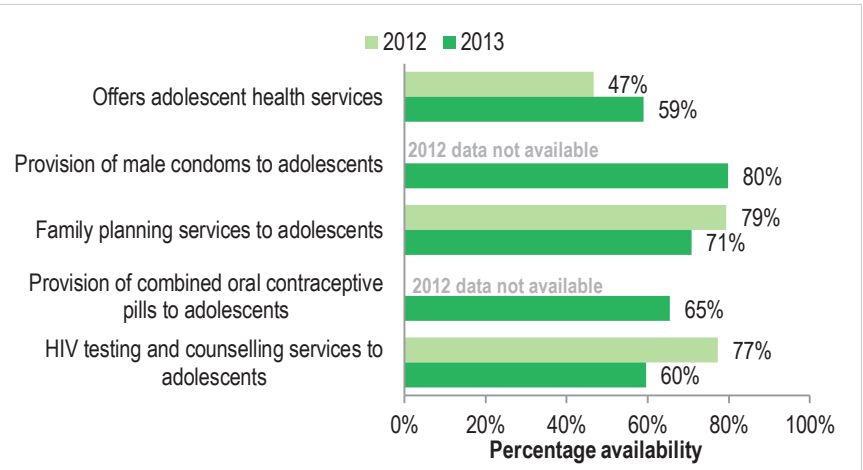
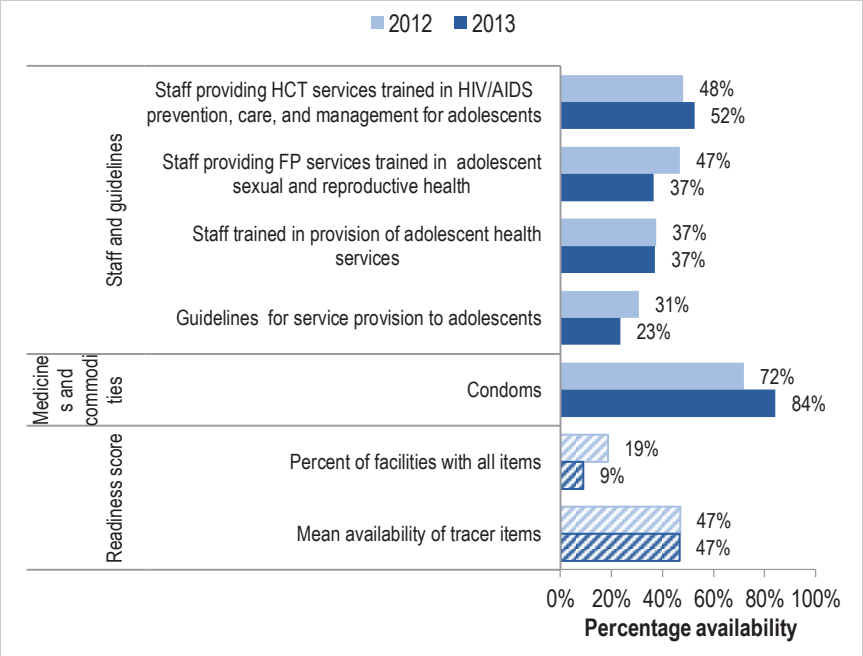


Figure 35 shows the percentage of facilities offering adolescent health services that have tracer items for adolescent health present in the facility on the day of the assessment. In terms of readiness, only 37% of facilities have had at least one staff trained in the provision of adolescent health services in the last 2 years. Just over half of the facilities had at least one staff providing HIV/AIDS testing and counseling ,trained in HIV prevention and care and management for adolescents.

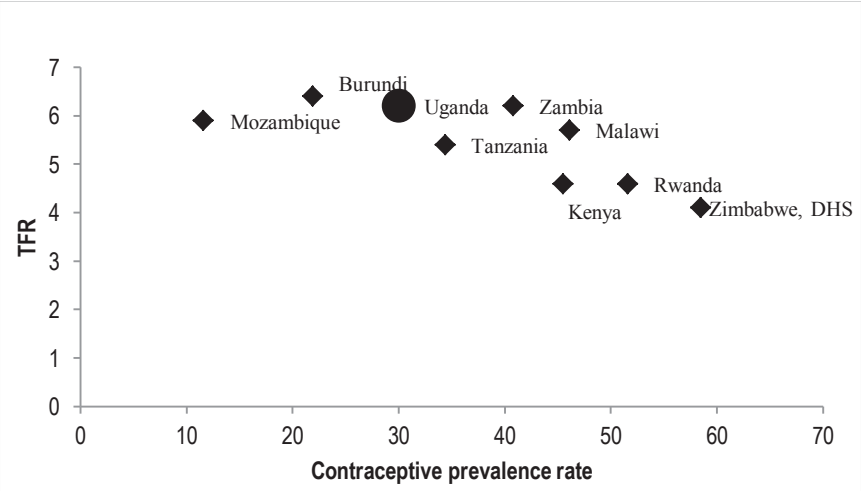
Figure 35: Service readiness: Percentage of facilities offering adolescent health services that have tracer items. (N_{2012} = 56, N_{2013} = 125)



Comparative analysis

Contraceptive use is important in fertility regulation. Figure 36 shows a plot of total fertility rate against contraceptive prevalence rate for Uganda and 8 peer countries using data from the most recent national survey from each country. There appears to be a negative correlation between total fertility rate and contraceptive prevalence rate: Countries with low contraceptive prevalence rate tend to have higher total fertility rates (Uganda, Burundi and Mozambique) while those with higher contraceptive prevalence rate have lower total fertility rates (Kenya, Rwanda and Zimbabwe).

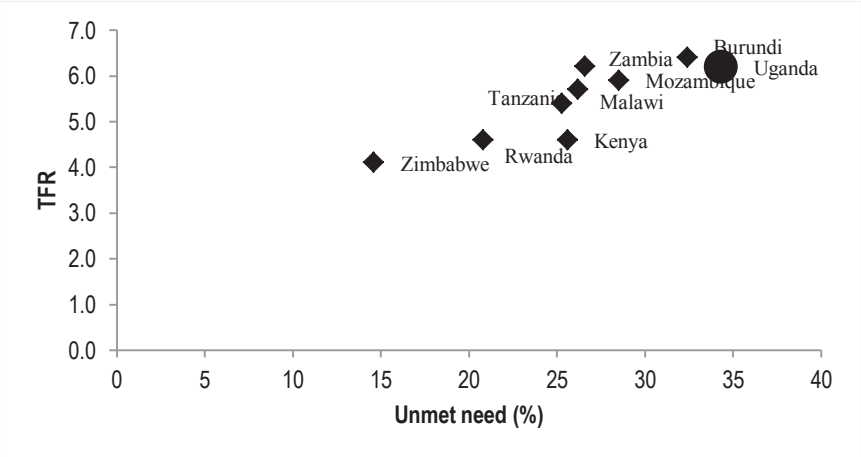
Figure 36: Total fertility and contraceptive prevalence rates, by country, DHS data



Source: DHS

Using the same peer countries, Figure 37 shows a plot of total fertility rate against unmet need. There is a positive correlation between the two: Countries with lower unmet need for family planning (Kenya, Rwanda, Zimbabwe and Tanzania) have lower total fertility rates while those with higher unmet need have higher total fertility rates (Uganda, Burundi, Zambia). These observations are as expected as contraceptive use is very crucial in fertility regulation. Among peer countries, Uganda has the highest unmet need for FP, as well as the highest fertility rate

Figure 37: Total fertility rate and unmet need by country using latest DHS data



There is a positive correlation between unmet need for family planning and total fertility rate

Among peer countries, Uganda has the highest unmet need for FP, as well as the highest fertility rate

3.3 IMMUNIZATION

Main findings

- Uganda continues to improve in child immunization coverage with overall increasing trend for measles and DTP third dose immunizations. HMIS data source suggests higher coverage rates than survey, but the 2012-13 data quality assessment reveals an over-reporting (of approximately 20%).
- There were small equity gaps by wealth, education, and residence; however, there were large gaps by region with Karamoja having much higher DTP3 (90%) and measles (91%) coverage compared to East Central (DTP3 53%) and Central 2 region (measles 71%) respectively.
- Health facilities providing routine child immunization services are generally well-equipped to provide the service. Approximately 80% of facilities had vaccines in stock on the day of the assessment, and availability of single-use syringes and sharps container was close to universal.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
DPT3 /pentavalent coverage in children under 1 (%)	76% (HMIS)	90% (HMIS) 66.0% (UDHS 2011)	85% (HMIS)	91% (HMIS)	85%	High coverage, remains well above target. Note however, that DHS indicates much lower coverage and data quality assessment indicates 20% over-reporting.
Measles vaccination in children under 1 (%)	72% (HMIS)	85% (HMIS) 60.3% (UDHS 2011)	89% (HMIS)	91% (HMIS)	85%	Well above target and increasing to reach nearly all children. Note however, that DHS indicates much lower coverage

Data sources and quality

- **Surveys:** UDHS gives information on vaccination coverage among children 12-23 months (about two-thirds of the information was copied from the child health card, the rest was recalled by the mother).
- **Health facility data (HMIS):** provide information on immunization service volumes.
- **Health facility assessment (SARA):** 2012 and 2013 provide information on trends in immunization service readiness
- **Quality:** Generally good for survey data, but large uncertainty at regional level because of small sample sizes. A health facility record review of DTP third dose immunization (verification of facility source documents to determine consistency with reported values) conducted in June 2013 showed a verification factor of 0.79, indicating a rate of over-reporting (more immunizations reported to HMIS than could be verified in source documents) of approximately 20%.

National trends

The two indicators used to monitor childhood immunization coverage are DTP third dose and measles immunization for children under 1 year of age. HMIS data indicate that DTP3 coverage is over 90%, above the target of 85% for 2014/15. In contrast, from the UDHS 2011, DTP coverage for children under 1 year was 66.1% representing an increase from 54.8% in 2006, but which is still below the target. The discrepancy could be due to over-reporting of the number of immunizations, for example due to first and second doses being counted as third doses, or children over 1 year of age being counted as under 11. A data verification survey assessing the consistency between health facility source documents and reported figures showed approximately 20% over-reporting of DTP third dose immunizations. This result could help to explain the discrepancy between the HMIS and survey coverage rates.

Figure 38: DTP3 coverage trends from survey and HMIS data

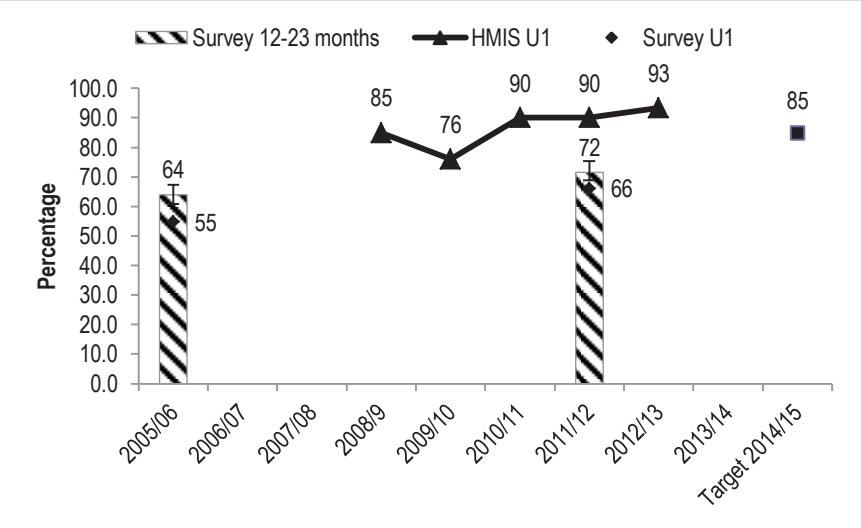
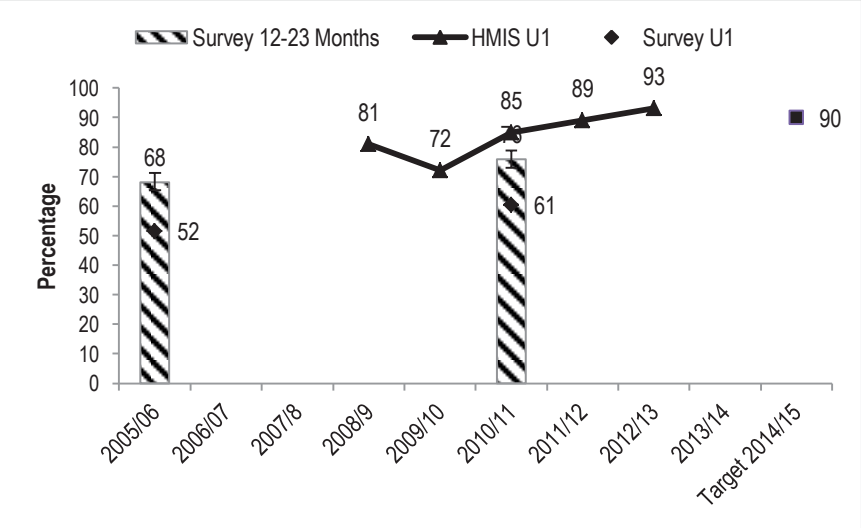


Figure 39 shows trends in measles vaccination coverage using survey and HMIS data. HMIS data show a steady increase from 81% coverage in 2008/09 to 93% in 2012/13, above the target value of 90%. Survey data estimates an increase from 52% in 2006 to about 60.5% in 2011 for children under 1 of age. It is likely that measles immunizations has a similar rate of over-reporting as DTP3.

Figure 39: Trends in measles immunization coverage, UDHS and HMIS



Equity

Figure 40 shows DTP3 coverage by residence, household wealth status; maternal education and region for children aged 12-23 months of age. By education, wealth and residence, there were only small differences in coverage while for regions, the gaps are wider. Karamoja region had coverage of 89.5% while East Central only had coverage of 52.8% among children 12-23 months.

Figure 40: DTP3 coverage by residence, education, wealth and region.

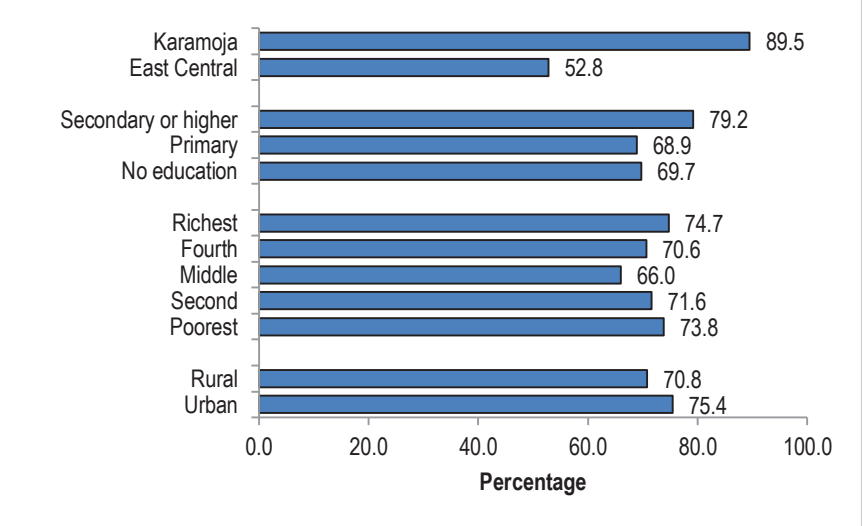
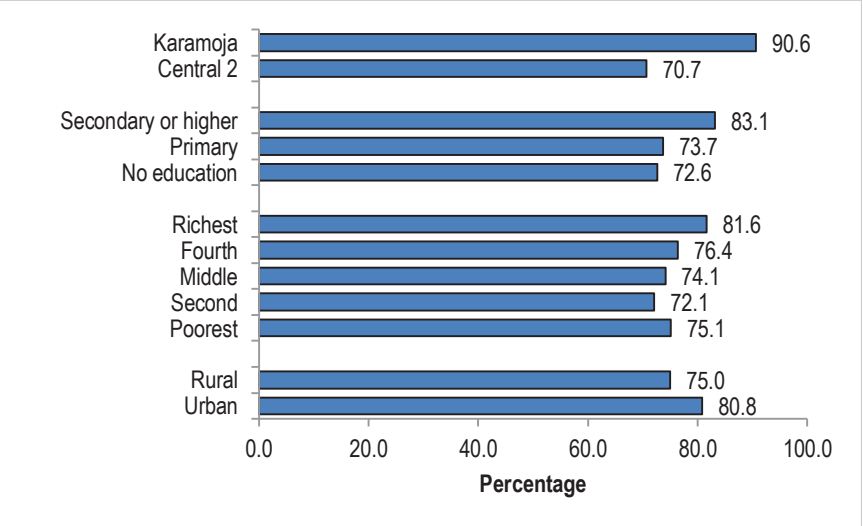


Figure 41 shows measles coverage by residence, household wealth status, maternal education and region for children aged 12-23 months of age.Measles coverage among urban children was higher as was that for the wealthiest, those whose mothers had secondary or higher education, and those from Karamoja. As for DTP3, equity gaps by wealth, education, and residence were small compared to the regional gap between Karamoja (92%) and Central 2 region (71%).

Figure 41: Measles coverage by residence, education, wealth and region.



Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Routine child immunization services

Figure 42 shows the percentage of facilities offering antenatal care services in 2012 and 2013. About three quarters of health facilities offer routine immunization services.

Figure 42: Service availability: Percentage of facilities offering child immunization services (N_{2012} = 95, N_{2013} = 209)

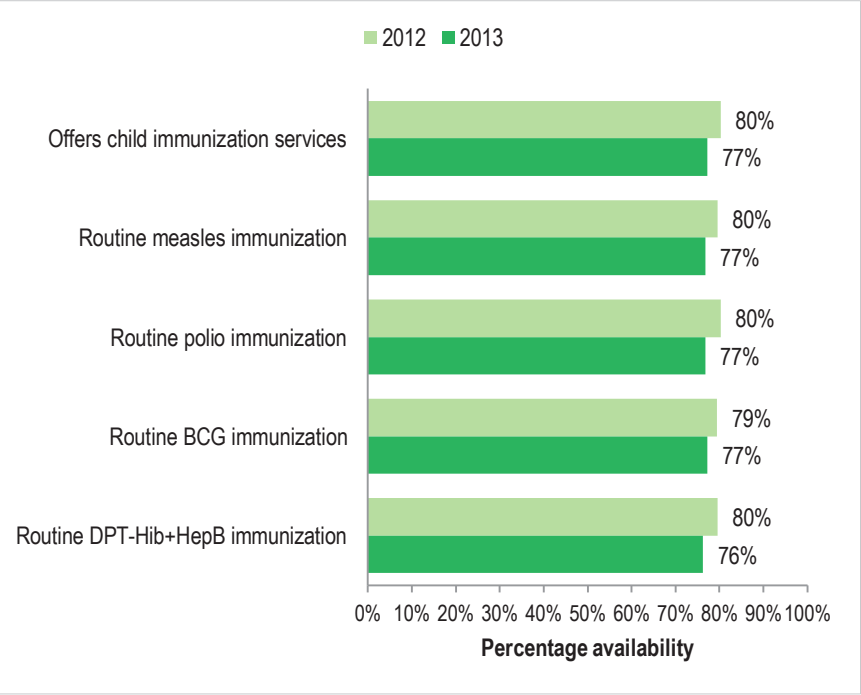
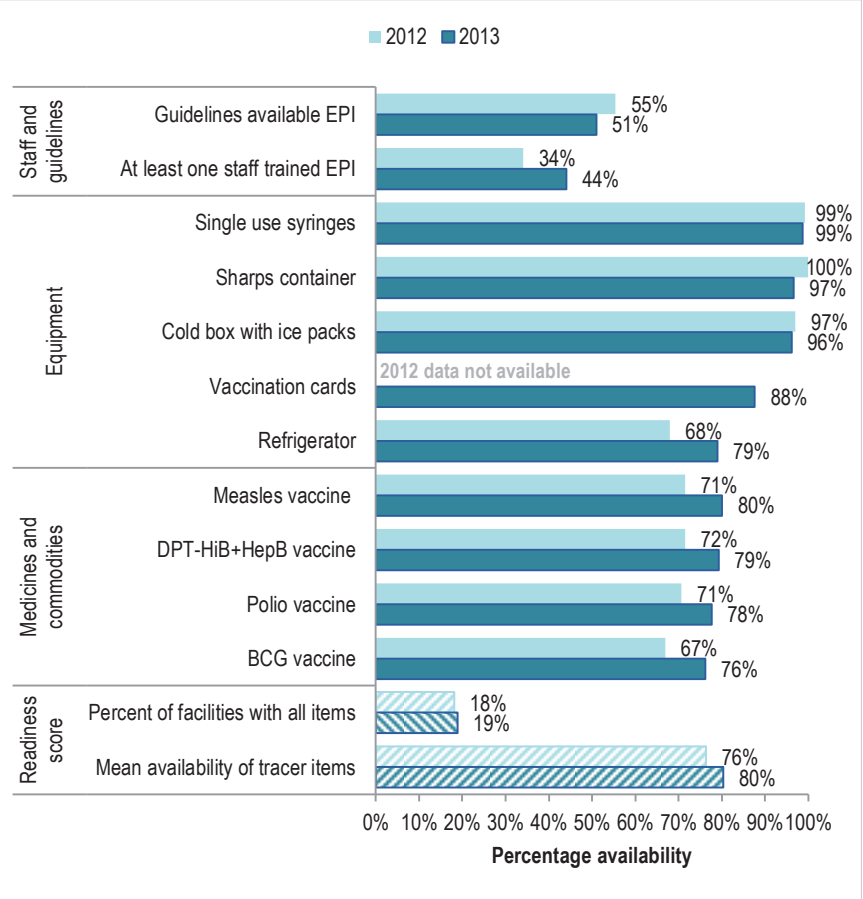


Figure 43 shows the percentage of facilities offering child immunization services that have tracer items for immunization present in the facility on the day of the assessment. Among those facilities providing immunization services, about 80% had vaccines in stock, and almost all had essential items including single use syringes, sharps container and cold packs. However, almost one in five facilities offering immunization services had no refrigerator.

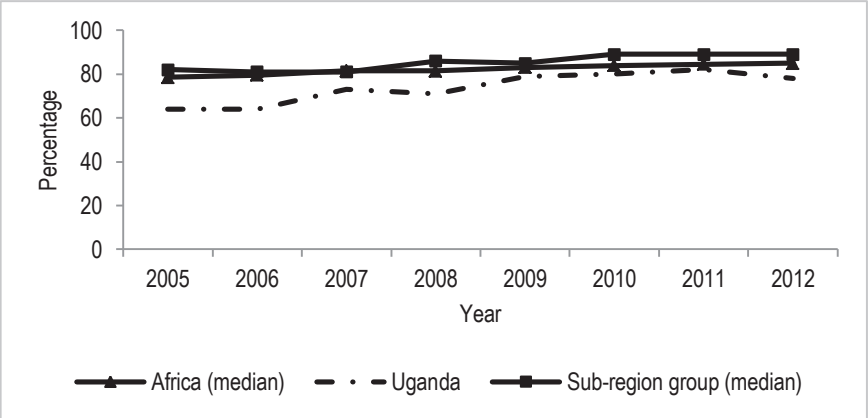
Figure 43: Service readiness: Percentage of facilities offering child immunization services that have tracer items. (N_{2012} = 84, N_{2013} = 175)



Comparative analysis

Using single year immunization coverage as reported to WHO by member countries, Figure 44 provides a comparison of DTP3 trends for Uganda, the median for peer countries and African estimates[2]. DTP3 coverage for Uganda lies below the median for peer regional countries and Africa as a whole for the entire time period.

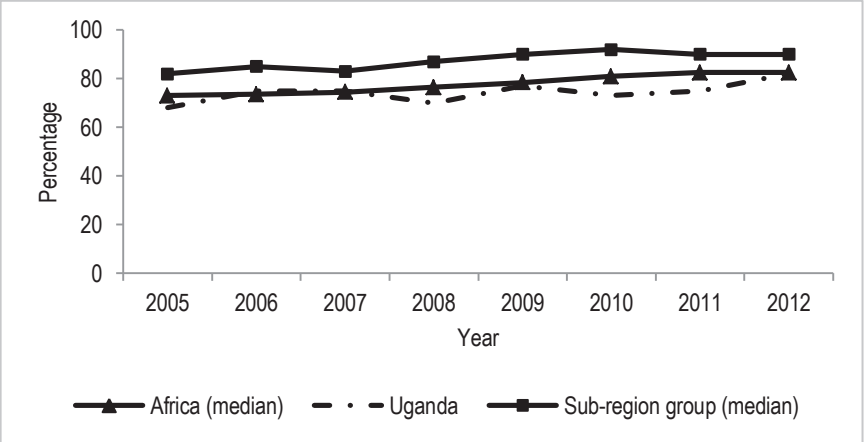
Figure 44: DTP3 immunization coverage trends



Source: WHO/UN immunization estimates

Figure 46 gives a comparison of measles coverage for Uganda, median for regional peer countries and Africa. Generally measles coverage for Uganda is slightly lower than that for the peer regional countries and that for Africa. The median for peer countries is higher than that for Africa.

Figure 45: Measles immunization trends



Source: WHO/UN immunization estimates

[2] http://apps.who.int/immunization_monitoring/globalsummary/timeseries/tswucoveragedtp3.html l

3.4 CHILD HEALTH & NUTRITION

Main findings

- Steady decreasing trend of underweight and stunted children; large equity gaps remain with rural children twice as likely to be underweight/stunted compared to urban children. There are also large regional differences with 45% of children stunted and 32% underweight in Karamoja compared to 14% stunted and 6% underweight in Kampala.
- Prevalence of anaemia has decreased for children under five, women and for men. The original 2014/15 target has been met, and revised targets have been set.
- Coverage of Vitamin A supplementation has increased; however Vitamin A deficiency has also increased. According to SARA, nine in ten health facilities provide Vitamin A supplementation services. Eight in ten facilities had Vitamin A capsules in stock on the day of the assessment.
- Nine in ten health facilities provide preventive and curative care to children under five. Co-trimoxazole syrup/suspension was available in only four in ten facilities, as was paracetamol syrup/suspension. Amoxicillin syrup/suspension was available in only three in ten facilities.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Underweight among children under 5	16% (UDHS 2006)	14% (UDHS 2011)	-	-	10%	On track to meet target
Stunting among children under 5	38% (UDHS 2006)	33% (UDHS 2011)	-	-	32%	On track to meet target
Other indicators						
Prevalence of anaemia	Children: 73% Women: 49% Men: 28% (Children: 73% Women : 42% UDHS 2006)	-	Children: 49% Women: 23% Men: 15% (Children: 50% Women : 37% UDHS 2011)	-	Children: 60% Women: 30% Men: 15%	Original targets have been reached. **New targets:** Children: 30% Women: 15% Men: 10%
Exclusive breastfeeding at 6 months	60%	-	63%	-	80%	No progress
Children 6-59 months receiving doses of Vitamin A	36%	59%	68%	64%	80%	Progress made from baseline, but still far below target
Vitamin A deficiency	Children: 20% Women: 19%	-	Children: 38% Women: 36%	-	Children: 19% Women: 9%	Increasing trend

Data sources and quality

- **Surveys**: UDHS surveys are nationally representative surveys that provide high quality and detailed information on child anthropometry. UDHS also provides data on vitamin A supplementation and child health seeking behavior for common illnesses.
- **Health facilities reports**: can provide data on morbidity (clinical diagnosis) and interventions such as vitamin A supplementation
- **Health facility assessment (SARA)**: 2012 and 2013 provide information on trends in readiness to provide integrated child health services
- **Quality:** good for survey data, although treatment data are only indicative as there is no proper measurement of need for treatment. Facility data (HMIS) need to be evaluated for quality.

National trends

Adequate nutrition is internationally recognized as a key factor in human development and economic productivity. Malnutrition on the other hand makes the population vulnerable to infections and other diseases and it contributes to 60% of under five deaths and 20% of maternal deaths (Lancet Series, 2008), hence the need for its prevention and control. Its causes are multi-dimensional and include poor feeding practices, emanating from lack of knowledge and food shortage. Thus an integrated multisectoral approach involving various Ministries is needed.

Maternal and child under-nutrition has only improved slightly over the past 20 years and remains unacceptably high despite the implementation of a variety of interventions by the government and other stakeholders. According to the UDHS 2011, 33% of children under the age of 5 in Uganda are stunted, 14% underweight, 5% wasted. Stunting is highest in Karamoja (45%), and even in regions with high food production such as the Western (44%) and southwest (42%) regions, while anaemia in children under 5 years and women of reproductive age is highest in Karamoja (70%vs 43%); East Central (68%vs30%) and West Nile (64%vs32%) regions. Infant and young child feeding Practices are also still quite poor. Initiation of breast feeding within one hour after birth is at 53%, exclusive breast feeding (0-6months) at 63% while only 18% of children age 6-23 months are appropriately fed.

Figure 46 shows trends in child stunting (below 2 SD) from the WHO standard. In both rural and urban areas, the proportion of stunted children has been decreasing over the years from 44.8% in 2000 to 33.4% in 2011. The 2014/15 target of 28% appears to be achievable.

Figure 46: Trends in child stunting in Uganda, UDHS

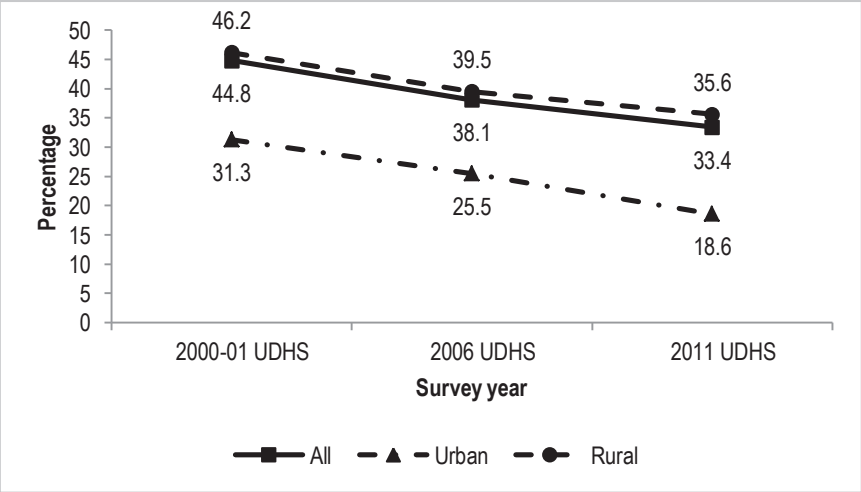
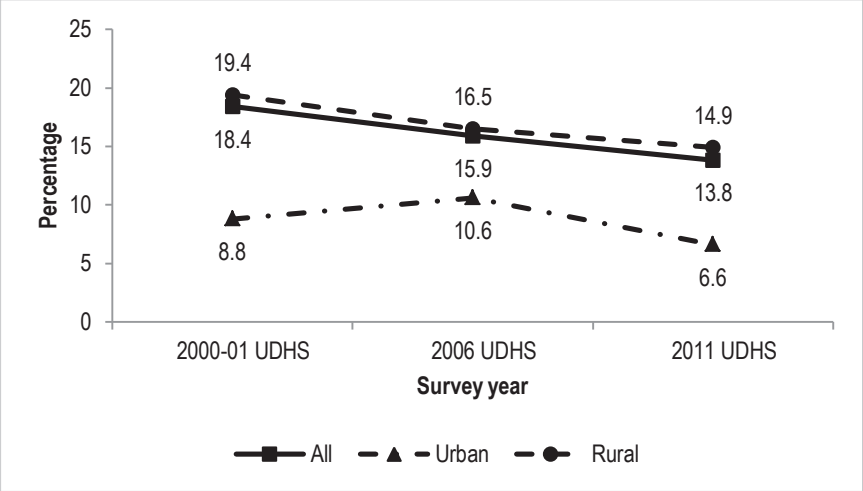


Figure 47 shows trends in underweight children in Uganda. The estimates of 2011 show that about 13.8% of the children under five years of age are stunted with 14.9% in rural and 6.6% in urban areas. The proportion of stunted children has generally been decreasing over the years and the 2014/15 target of 10% appears to be achievable.

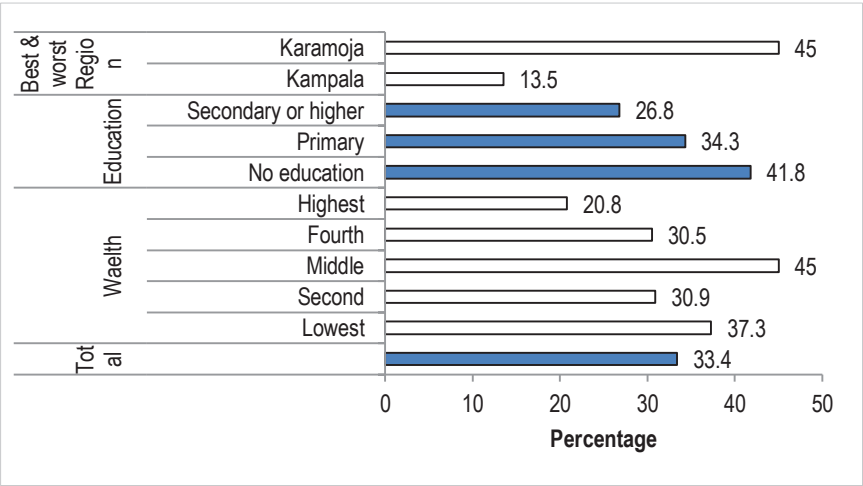
Figure 47: Trends in child underweight in Uganda, UDHS



Equity

Figure 48 shows the proportion of children who are stunted by region, maternal education and wealth status to highlight equity differences. Kampala region has the lowest proportion of stunted children at 13.5% while Karamoja has the highest at 45%. The proportion of stunted children decreases with increasing maternal education with approximately 42% of children whose mothers had no education being stunted compared with about 27% among those whose mothers had secondary or higher education.

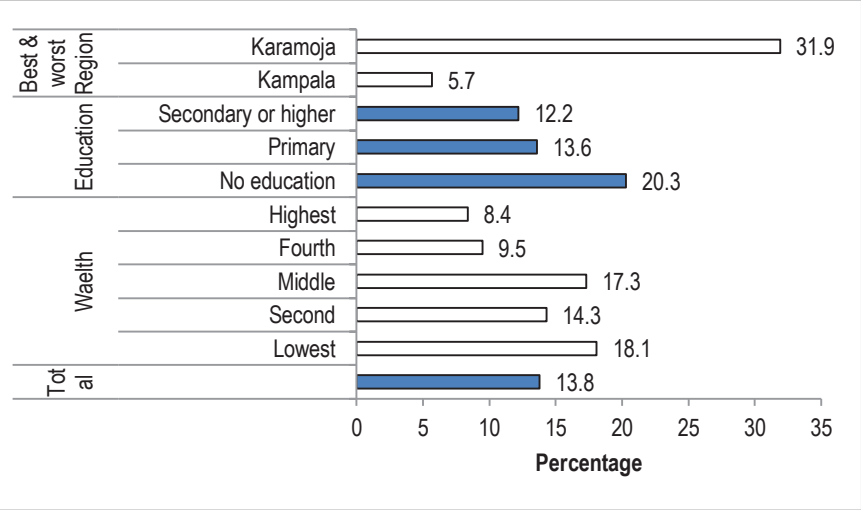
Figure 48: Proportion of children who are stunted by region, maternal education and wealth status.



Source: DHS

Figure 49 shows the proportion of children who are underweight by region, maternal education, and wealth status. While Kampala region had only 5.7% of children who were sunderweight, the proportion in Karamoja was 32%. Lower proportions of children whose mothers had higher education and those from wealthier household were underweight.

Figure 49: Proportion of children who are underweight by region, maternal education and wealth status.

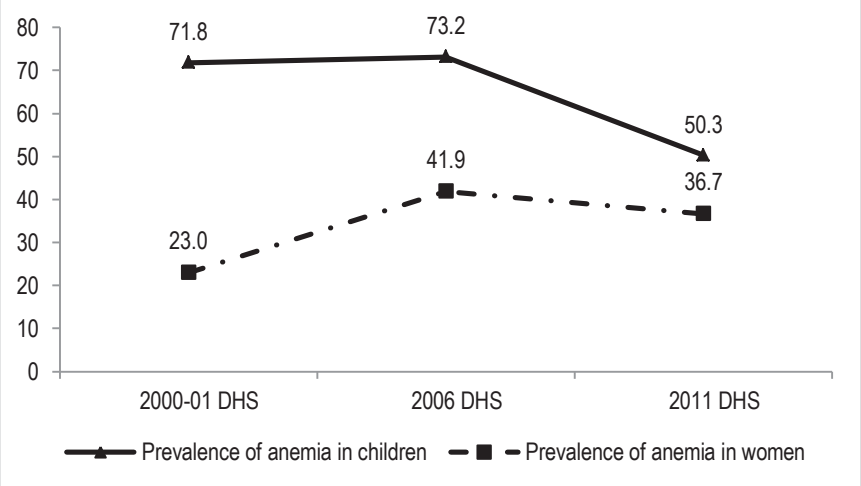


Source: DHS

Programme indicators

Figure 50 shows trends in prevalence of anaemia among children under-five and women. Among children, prevalence of anaemia decreased from 73% in 2006 to 50% in 2011. For women the decline was more modest, falling from 42% to 37%. This small decline came after a sharp increase from 23% in 2000-01 to 42% in 2006.

Figure 50: Prevalence of anaemia in children under 5 and women of reproductive age.



Source: DHS

Figure 51 shows trends in the proportion of children exclusively breast fed up to 6 months. The estimates show that over the last 20 years, there has been no change in the proportion of children exclusively breast fed. The HSSIP target of 80% appears unachievable by 2014/15.

Figure 51: Trends in the proportion of children exclusive breastfeeding at 6 months

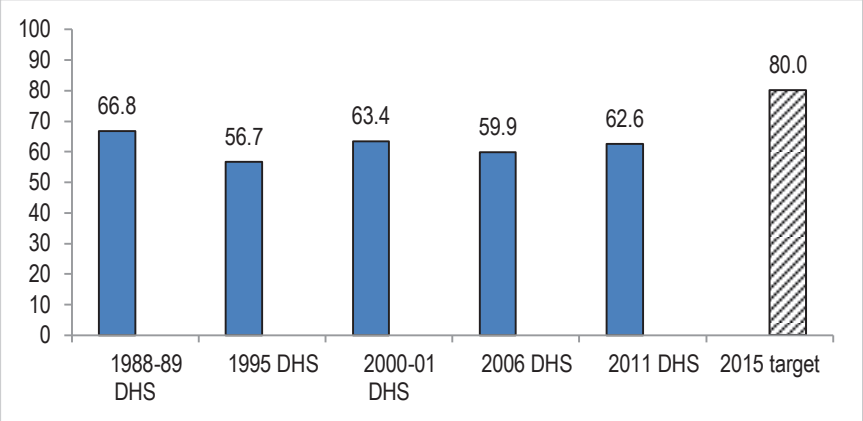
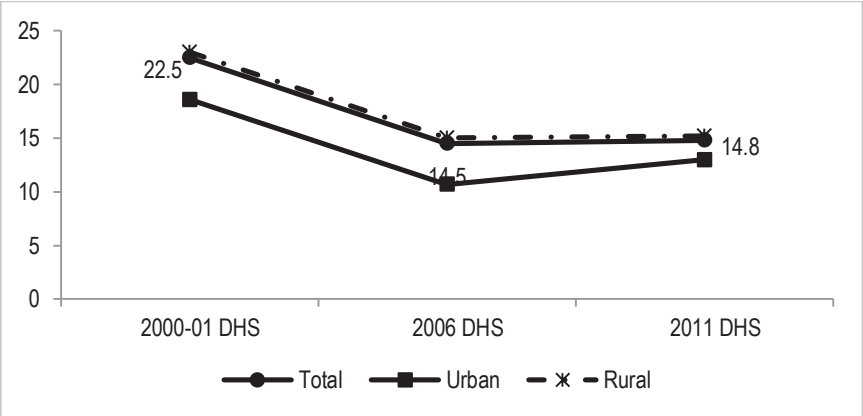


Figure 52 shows the trends in proportions of children under-five years of age who had pneumonia in the two weeks prior to the survey. From 2000-01, there was a sharp decline from 23% to 15 in 2006 but this decline seems to have stalled after 2006. Prevalence of pneumonia is generally higher among rural children.

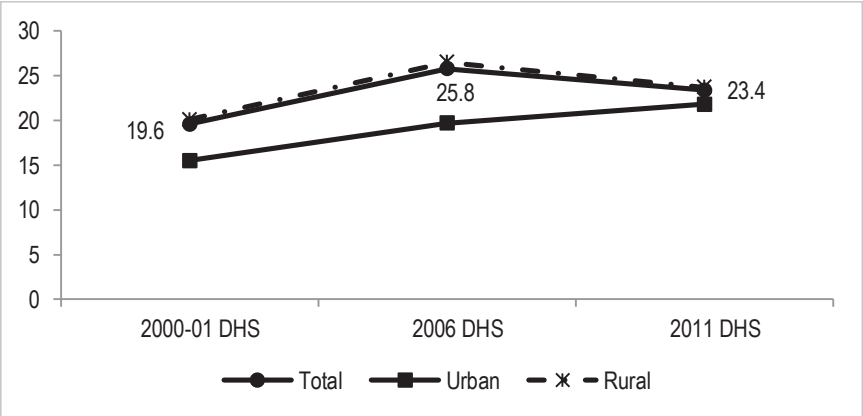
Figure 52: Trends of proportion of children with cough & fast breathing (pneumonia)



Source: DHS

Figure 53 shows trends of proportion of children with diarrhoea in the two weeks preceding the survey. Prevalence of diarrhoea increased from 200-01 from 20% to about 26% in 2006 and slightly declined after 2006 to 23.4% in 2011. The prevalence, as expected, is generally higher among rural children but this gap narrowed greatly in 2011.

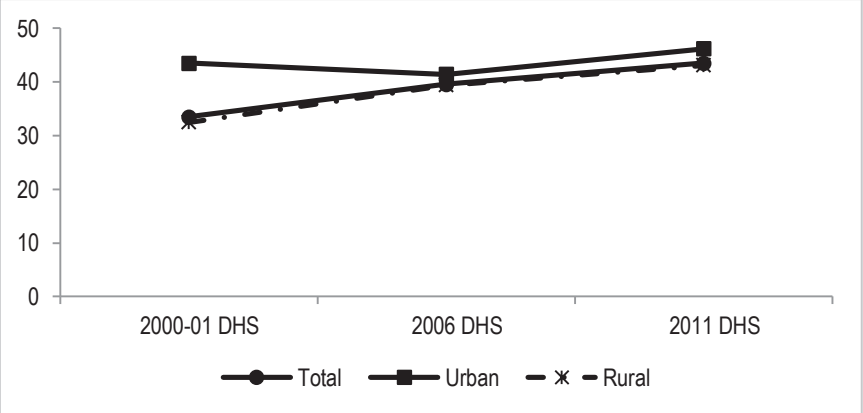
Figure 53: Trends of proportion of children with diarrhea



Source: DHS

Use of oral rehydration therapy (ORT) is the recommended treatment for diarrhoea among children. Figure 54 shows trends in the use of ORT among under-five children who had diarrhoea in the two weeks prior to the survey. The estimates show modest increase in the use of ORT to treat diarrhoea over the years. The increase was more marked in rural areas.

Figure 54: Trend of proportion of children with diarrhoea treated with ORT



Source: DHS

Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Child health services

Figure 55 shows the percentage of facilities offering child health services in 2012 and 2013. Almost all (93%) facilities offer preventive and curative care for children under 5.

Figure 55: Service availability: Percentage of facilities offering child health services (N_{2012} = 95, N_{2013} = 209)

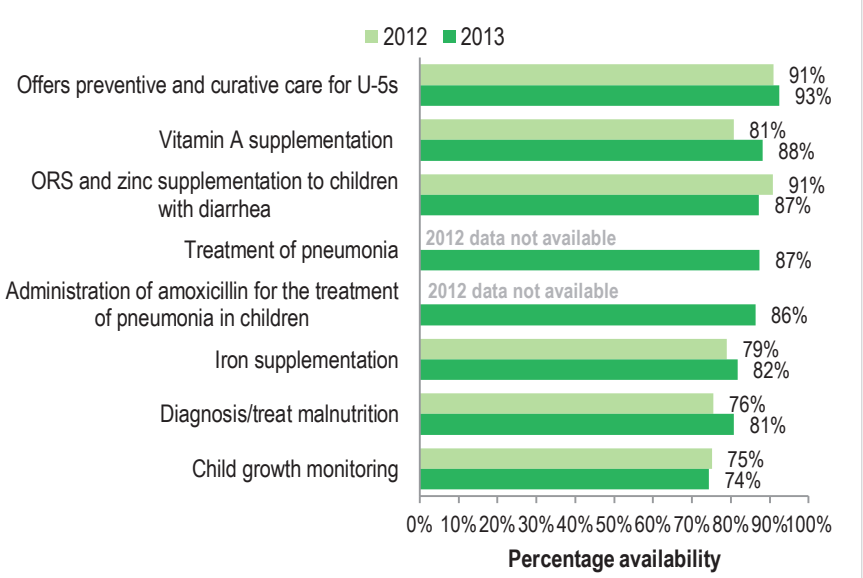
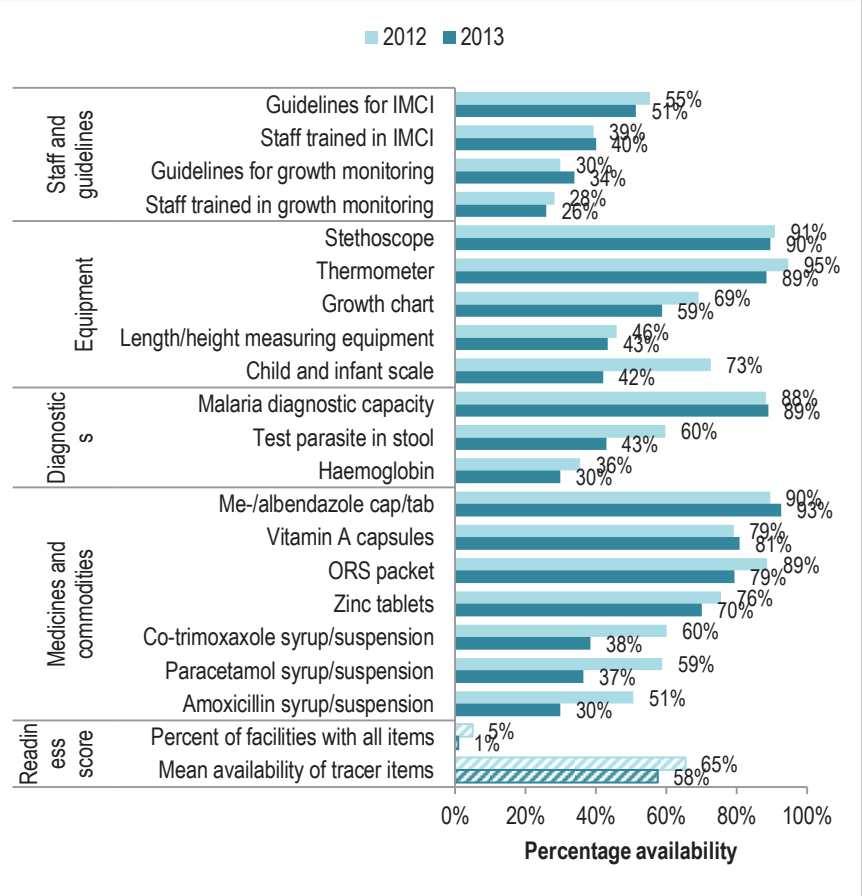


Figure 56 shows the percentage of facilities offering child health services that have tracer items for child health present in the facility on the day of the assessment. Overall, there is not much change in the availability of these items between 2012 and 2013. Availability of co-trimoxazole, paracetamol, and amoxicillin syrup or suspension appear to have decreased. ORS and Vitamin A capsules were available in eight in ten facilities.

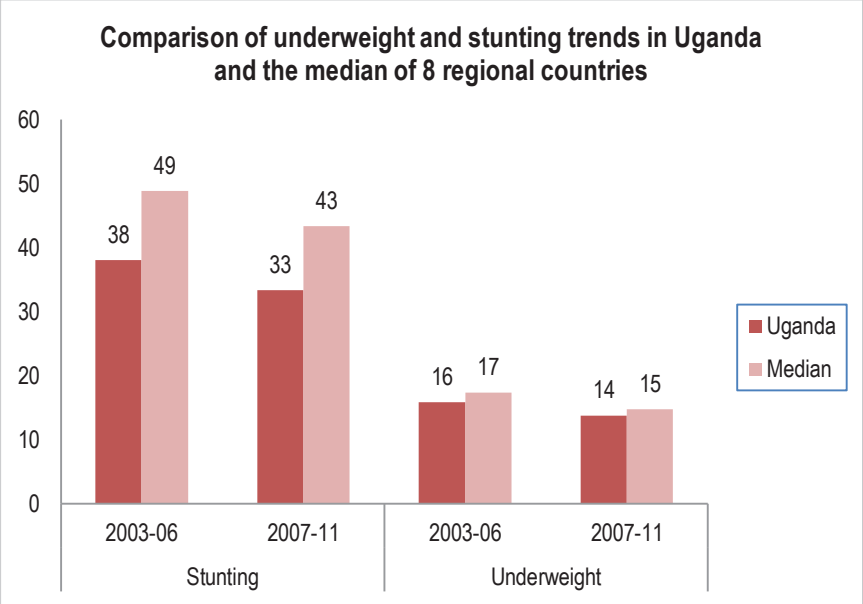
Figure 56: Service readiness: Percentage of facilities offering child health services that have tracer items. (N_{2012} = 91, N_{2013} = 197)



Comparative analysis

Figure 57 shows a comparative analysis using data from DHS surveys conducted after 2008 in Uganda and in seven neighbouring countries with two surveys, one during 2003-2006 and one during 2007-2011. Overall, Uganda's stunting rate is considerably lower than the regional median, whereas the proportion of underweight children was very close to the regional median. Uganda has the third lowest stunting rate at 38% in 2003-06 after Zimbabwe and Kenya, and the second lowest at 33% in 2007-2011. For underweight children, Uganda is ranked third out of nine countries in 2003-06 at 16% and fourth in 2007-2011 after Zimbabwe, Rwanda, and Malawi.

Figure 57: Comparison of underweight and stunting trends in Uganda and the median of 8 regional countries



Source: DHS

Accountability for Women and Children's health

The Commission on Information and Accountability for Women's and Children's Health was set up at the end of 2010 by WHO at the request of United Nations (UN) Secretary-General Ban Ki-moon in support of the Global Strategy for Women's and Children's Health. Its objective was to develop a framework for global reporting, oversight and accountability on women's and children's health in the 74 high-burden and low-income countries. Accounting for 95% of all maternal and child deaths. The Commission's framework aims to track whether donations for women's and children's health are made on time, resources are spent wisely and transparently, and the desired results are achieved.

The Commission identified 11 core indicators that, taken together, enable stakeholders to track progress in improving coverage of interventions needed to ensure the health of women and children across the continuum of care. These indicators include eight measures of intervention coverage and three measures of impact, and were selected from the indicators monitored for the Millennium Development Goals and those tracked by Countdown to 2015. Table 8 shows Uganda's progress on the 11 core indicators for Women and Children's health.

Table 8: 11 core indicators for Women and Children's health, Uganda

INDICATOR	PROGRESS	SOURCE
Maternal mortality ratio	310 /10,000 (2010)	MMEIG 2012
Under-five child mortality (with the proportion of newborn deaths)	90/1000 (2011) Neonatal: 33%	UN-IGME 2012
Stunting prevalence	33%	DHS 2011
Demand for family planning satisfied (met need for contraception)	47%	DHS 2011
Antenatal care (four or more visits)	48%	DHS 2011
Antiretrovirals for HIV-positive pregnant women	54%	UNAIDS 2011
Skilled attendant at birth	58%	DHS 2011
Postnatal care for mothers and babies within two days of birth	Mothers: 33% Babies: 11%	DHS 2011
Exclusive breastfeeding (0–5 months of age)	63%	DHS 2011
Three doses of DTP3 immunization coverage	72%	DHS 2011
Antibiotic treatment for childhood pneumonia	47%	DHS 2011

4 MALARIA, HIV/AIDS, TB & OTHER INFECTIOUS DISEASES

4.1 MALARIA

Main findings

- Among children with fever, the proportion of children who took antimalarial drugs the same day or the day after showed a small increase from 36% to 43%
- Intermittent preventive treatment (IPTp) with two doses of Fansidar (SP) during pregnancy made a slight increase from 18% to 27 % far below the 2015 target of 80%. Comparison of survey data from five neighbouring countries in the last 10 years shows that Uganda is close to the median of these countries for coverage of this intervention, but has made slower progress. Health facility assessments showed few facilities had IPTp guidelines (41%) and staff trained in IPTp in the preceding two years (23%).
- The proportion of households in possession of ITNs increased from 47% at baseline to 60% in 2011 getting a little closer to the target of 85% in 2015.
- Use of Insecticide treated nets (ITN) by children under five and pregnant women has however only increased slightly from 33% and 43% respectively to 43% and 47% respectively.
- Laboratory diagnostic capacity (Microscopy or RDT) has increased substantially from 26% in 2007 to 89% in 2012 and 2013.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
U5s with fever receiving malaria treatment within 24 hours from VHT	70% (HMIS 2009-10)	8.2%	19.5%	43.5%	85%	Positive trend but far below HSSIP target . iCCM is implemented in 34 districts
IPT: pregnant women taking at least 2 doses	47% (HMIS) 32% (UMIS 2009 for 2007-09) 18% (UDHS 2006 for 2004-06)	43% (HMIS) 27% (UDHS 2011 for 2009-11)	44% (HMIS)	48.5% (HMIS)	80%	There appears to be no progress and the indicator is well off the target for 2015
Other indicators						
U5s with fever receiving malaria treatment within 24 hours	29% (UDHS 2006)	-		43% (UDHS 2011)		Positive trend showing good progress

Percentage of under-fives and pregnant women having slept under an ITN the previous night	U5: 32.8% Pregnant women: 43.7%	U5: 43% Pregnant women:47%	-	-	U5: 60% Pregnant women: 60%	Steady increase but below target
Proportion of households with at least one ITN	46.7%	60%	-	-	85%	Positive trend, approaching target value
Proportion of households sprayed with insecticide in the last 12 months	5.5%	7.2%	8%	7.2%	30%	No progress and far below target

Data sources and quality

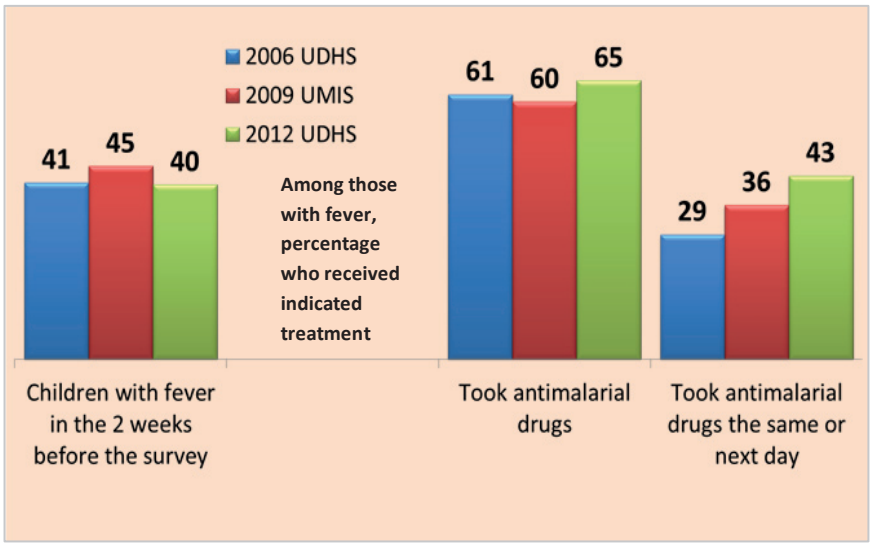
- **Surveys:** UDHS 2000-01, 2006, 2011, UMIS 2009
- **Health facility reports:** HMIS provides data on IPT2; community reporting system to collect data on malaria treatment within 24 hours is not yet fully functional.
- **Health facility assessments:** SPA 2007, SARA 2012, 2013
- **Quality:** The survey data are of good quality for coverage of preventive interventions but treatment data are less reliable as they are based on recall of symptoms and health seeking behaviours. The health facility data can only provide a general indication of trends and overall OPD and is affected by incomplete reporting, for FY2011/12 in particular due to the transition to DHIS2. ICD-10 is not used in hospitals.

National trends

Malaria remains a major public health burden in Uganda: it is highly endemic in 95% of the country, covering approximately 90% of the population of 34 million. It is the most frequently reported disease at both public and private health facilities in Uganda. As noted in Section 1, clinically diagnosed malaria is the leading cause of morbidity and mortality in Uganda both for children and adults, accounting for approximately 40% of outpatient diagnoses (all ages) and a third of inpatient deaths in children under five in 2010/11-2012/13 (source: HMIS).

Figure 58 shows the percentage of children with fever in the two weeks preceding the survey from 2006, 2009, and 2011, as well as the proportion of children with fever who received antimalarial drugs. The percentage of children with fever remained constant across the 3 surveys at 40-45%. The proportion of children who took antimalarial drugs also remained stable at 60-65%; however, those receiving antimalarial drugs the same day or the day after showed a gradual increase

Figure 58: Children with fever in the past two weeks and those receiving antimalarial drugs.



(Source: UDHS and UMIS)

Percentage of children with fever remained more or less constant at 40%

Percentage of children receiving antimalarial drugs the same day or the next day is gradually increasing

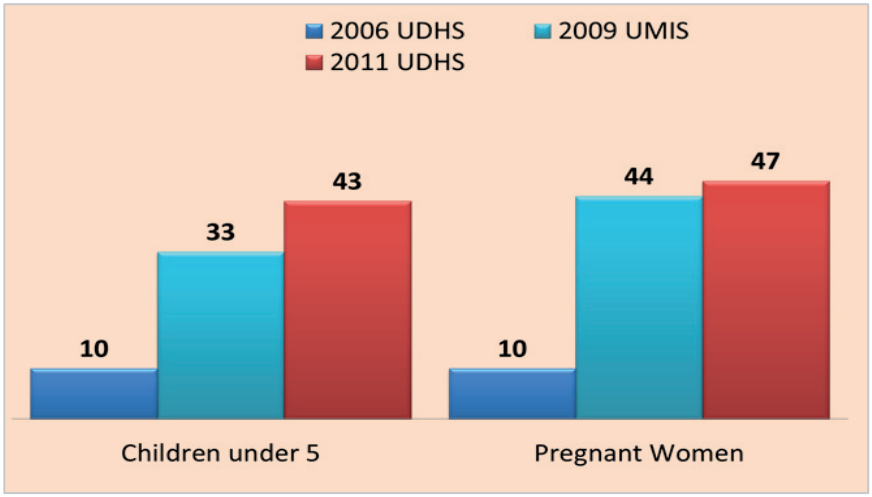
Overall, only two thirds of children took antimalarial drugs

The HSSIP 2010/11 – 2014/15 specifies a number of interventions for malaria prevention, including ITN use for pregnant women and children under five, indoor residual spraying, as well as malaria intermittent preventative treatment in pregnancy (IPTp).

Use of insecticide treated nets

The percentage of under-fives and pregnant women having slept under an ITN the previous night is shown in Figure 59.

Figure 59: Percentage of children under five and pregnant women who slept under an ITN the night preceding the survey.



Source: UDHS and UMIS

ITN use in children under five has increased four-fold since 2006, but is still under 50%

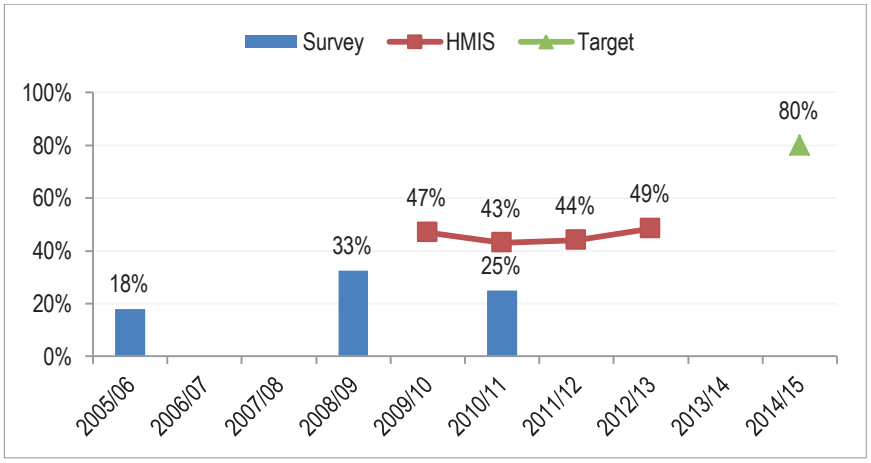
Similar rate of increase was seen in use of ITNs by pregnant women, but still less than half

Overall, the percentage of children under-five and pregnant women who slept under an ITN during the previous night has progressively increased since 2006. From the DHS data of 2011, the percentage of under-fives and pregnant women having slept under an ITN the previous night were at 43% and 47%, respectively. However, this is still far below the HSSIP 2014/15 target of 80%.

Intermittent Preventive Treatment (IPT in pregnancy)

IPT is recommended to be given twice a pregnancy (IPTp), using sulphadoxine/pyrimethamine to prevent malaria in pregnant women. Figure 60 show the percentage of women receiving at least two doses of SP from DHS surveys and from HMIS data. The percentage of women receiving at least 2 doses of SP for IPTp has shown an increase since 2006 but appears to have stagnated since 2009/10 and currently stands at 49% based on HMIS data. However, this is still far below the 2014/15 target of 80%.

Figure 60: Coverage of at least 2 doses of SP in pregnant women.

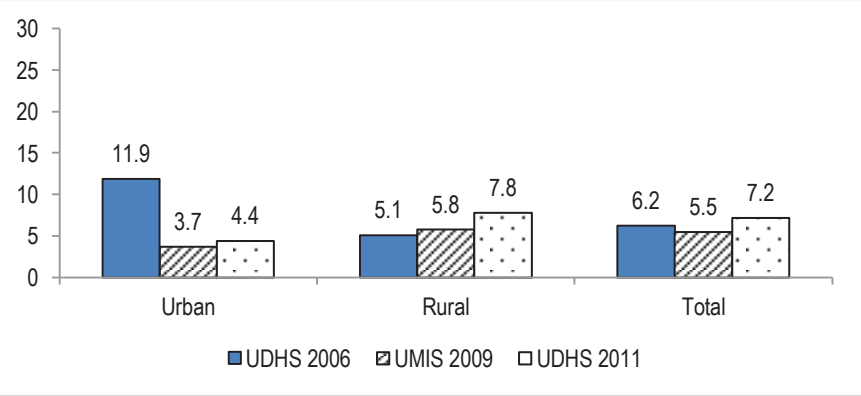


Source: UDHS, UMIS, and HMIS

Indoor residual spraying

The overall percentage of households that had been sprayed with insecticide in the 12 months preceding the survey (Figure 61) showed little change between 2006 and 2011, and remained very low at 6-7%. This is far below the 2014/15 target of 30%.

Figure 61: Percentage of households sprayed with insecticide in the last 12 months by urban/rural

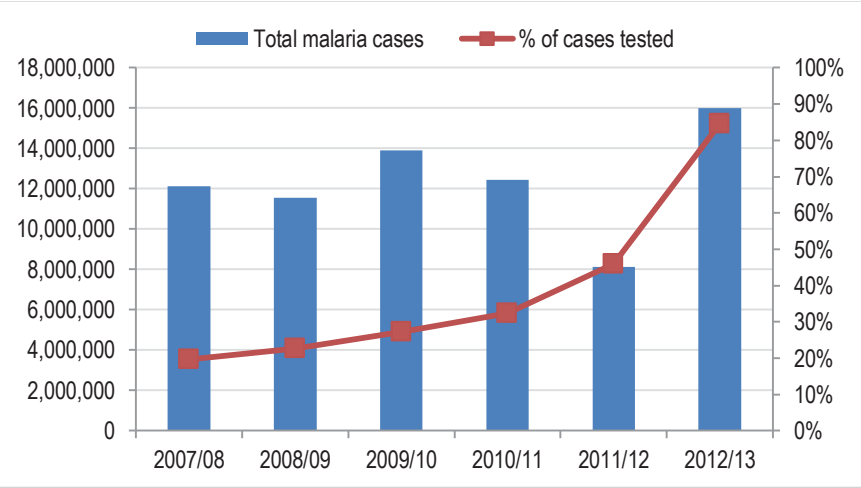


Source: UDHS, UMIS, and HMIS

Malaria diagnostic testing

There are no HSSIP indicators on malaria diagnostic testing; however, increasing the proportion of clinical malaria cases confirmed by laboratory diagnosis is one of the key objectives in the National Malaria Prevention and Control M&E plan. Figure 62 shows the total number of malaria cases reported through the HMIS, as well as the ratio of malaria tests conducted to the total number of cases (as a proxy for the proportion of clinical malaria cases with laboratory diagnosis). The graph appears to show an increase in the proportion of malaria cases confirmed through laboratory diagnostic testing. These results should be interpreted with care for the following reasons: (1) The number of cases tested is likely to be substantially undercounted prior to the addition of RDT testing to the HMIS forms in 2011/12, thus it is unclear how much of the increase in the percentage of cases tested is due to a true increase; (2) for 2012/13, the total number of tests conducted was obtained by adding the number of microscopy tests and RDTs, which assumes that the same case is not tested more than once using different methods; (3) it is not possible to track within the current data system whether individual clinical cases of malaria have been tested.

Figure 62: Number of malaria cases reported through HMIS, and proportion tested by microscopy or RDT.



Source: HMIS

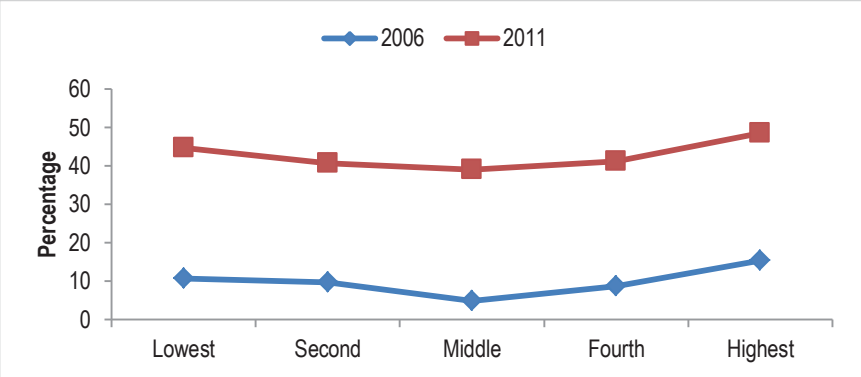
HMIS data indicate that a larger proportion of clinical malaria cases are being tested by microscopy or rapid diagnostic test.

These results must be interpreted with caution due to changes in the HMIS reporting system in 2011 to 2012.

Equity

Figure 63 shows the use of ITNs among children under five by wealth quintile in 2006 and 2011. Between the two surveys, there was a substantial increase in the use of ITNs by children under 5 across wealth quintiles, although usage still remains below 50%. There was not a large difference in usage rates between the highest and lowest wealth quintiles in either year. Use of ITNs still slightly favours girls over boys and children residing in urban areas over their counterparts in rural areas. However, the major difference between urban and rural dwelling children that existed in 2006 reduced substantially in 2011.

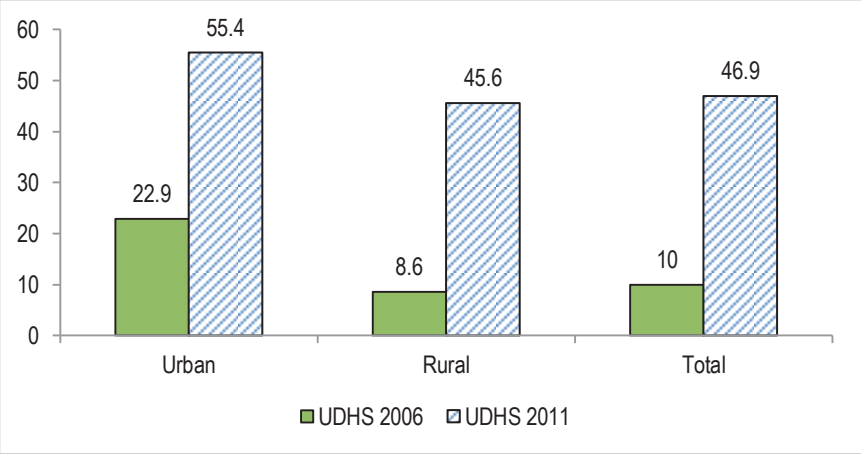
Figure 63: Use of ITNs among children under-5 by wealth quintile



Source: UDHS 2006 and 2011

Figure 64 shows the use of ITNs by pregnant women by residence in 2006 and 2011. Use of ITNs by pregnant women has shown a large increase between the two years, increasing two-fold in urban areas and five-fold in rural areas. However, there still remains a gap of approximately 10% favouring ITN use by pregnant women in urban areas over rural. There was not a large difference in ITN use across wealth quintiles.

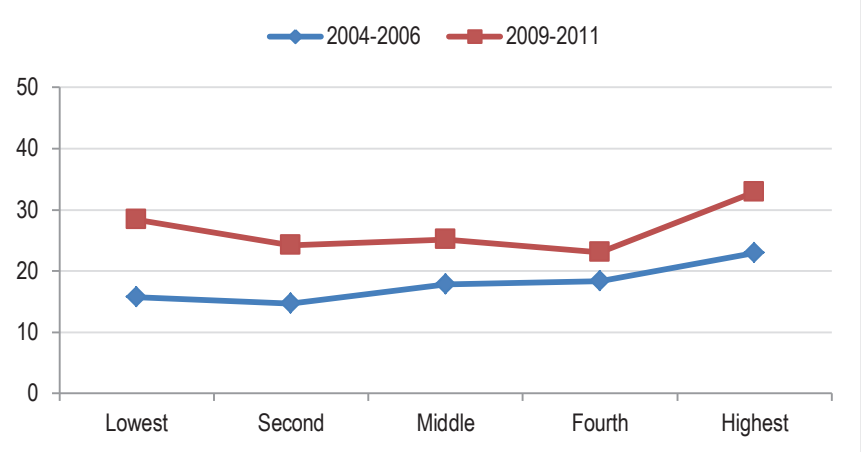
Figure 64: Use of ITNs by pregnant women



Source: UDHS 2006 and 2011

Figure 65 shows the coverage of IPT at least two doses in pregnant women by wealth quintile. Some progress has been made on the coverage of intermittent preventive treatment for malaria in pregnancy for all wealth quintiles between 2006 and 2011, although overall coverage remains low (below 40%). As in 2006, IPT2 coverage still favours women in urban areas and those with higher education.

Figure 65: IPT2 coverage among pregnant women by wealth quintile



Source: UDHS 2006 and 2011

Increase in coverage among all wealth quintiles, but coverage is still under 40% for all groups

Narrowing of equity gap between highest and lowest quintiles.

Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Malaria services

Figure 66 shows the percentage of facilities offering malaria services in 2012 and 2013. All or almost all facilities provided malaria diagnosis or treatment services in both years. This is consistent with the finding in the 2007 Service Provision Assessment (SPA), which showed that 99% of facilities provide malaria diagnosis and/or treatment services. Approximately 7 in 10 facilities offer IPTp services. A similar proportion of facilities systematically provide laboratory confirmation of clinical malaria diagnoses.

Figure 66: Service availability: Percentage of facilities offering malaria services (N_{2012} = 95, N_{2013} = 209)

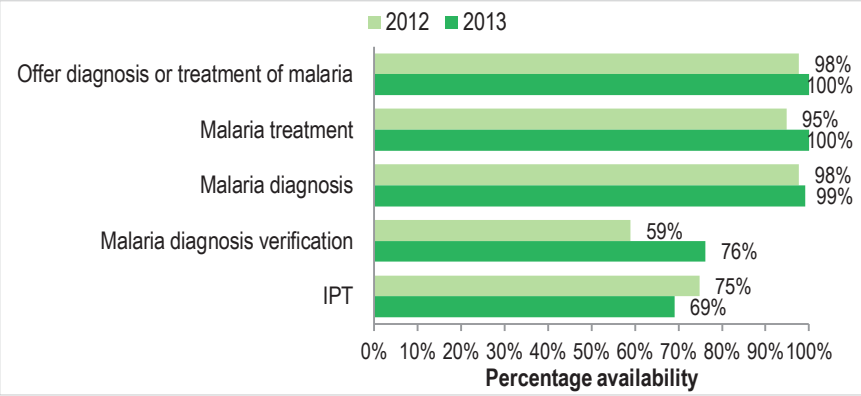
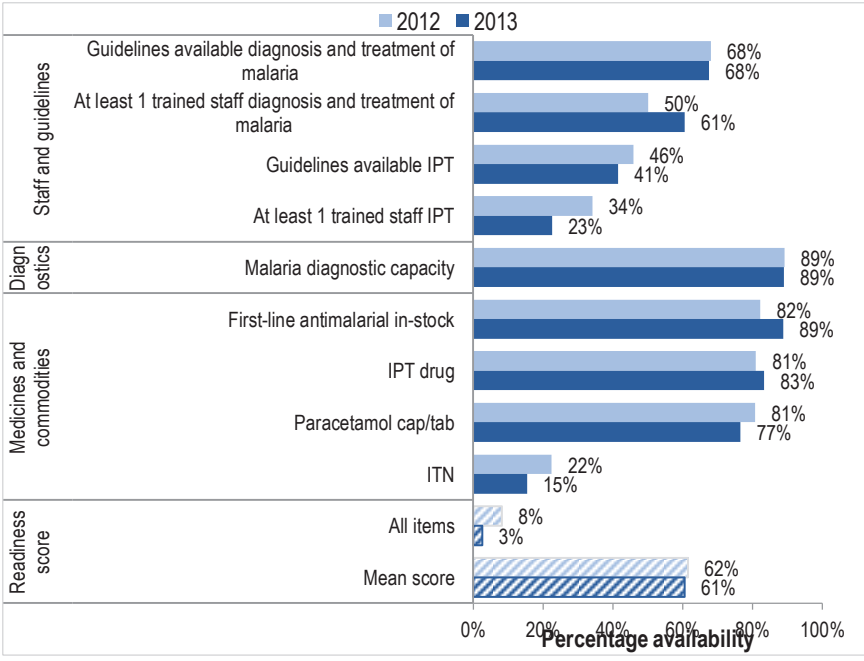


Figure 67 shows the availability of tracer items for malaria diagnosis and treatment services at health facilities. Under 10% of facilities had all nine tracer items; on average, facilities had six of the nine items. Nine in ten facilities had laboratory diagnostic capacity for malaria, either through microscopy or RDTs. This shows a substantial increase since 2007, when only 26% of facilities had laboratory diagnostic capacity for malaria (SPA 2007). This could be due to scale up of rapid diagnostic testing.

Approximately nine in ten facilities had ACT observed available and non-expired on the day of the assessment, while eight in ten facilities had Sulfadoxine + Pyrimethamine (Fansidar). Malaria programme guidelines were available in 7 in 10 facilities, while IPTp guidelines were available in only 4 in 10 facilities. Few facilities had staff trained in IPTp in the preceding two years in both years.

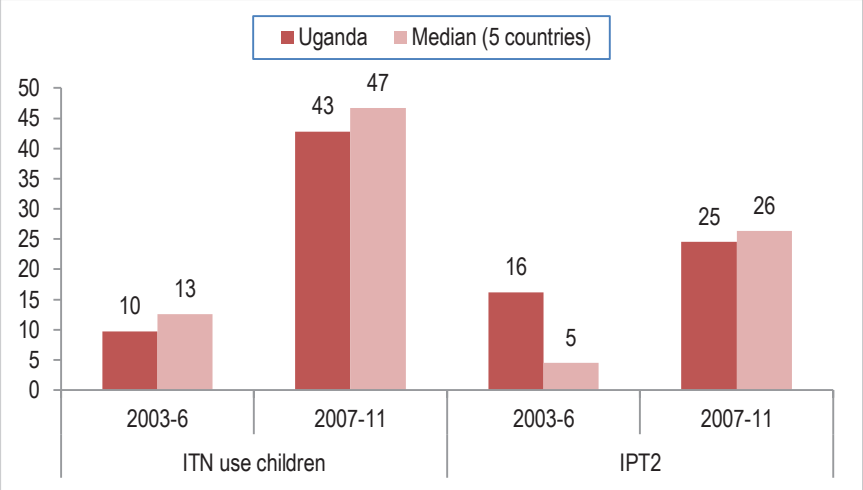
Figure 67: Service readiness: Percentage of facilities providing malaria services that have tracer items. (N_{2012} = 94, N_{2013} = 209)



Comparative analysis

Figure 68 shows the comparison of survey data from Uganda and five neighbouring countries (Malawi, Rwanda, Kenya, Tanzania, Zambia) with two data points in the last 10 years. The results show that Uganda is close to the median of these countries for coverage of malaria interventions. For children sleeping under an ITN the previous night, Uganda had the fourth highest coverage out of the six countries in both 2003-06 and 2007-11, after Rwanda, Tanzania, and Kenya. IPT2 coverage in Uganda was above the median in 2003-06, but has more recently dropped to fourth place well after Zambia (63%), Malawi (54%), and Tanzania (21%).

Figure 68: Comparison of ITN use (children) and IPT (2+ doses) in Uganda with neighbouring countries over time



Source: DHS

4.2 HIV/AIDS

Main findings

- The prevalence of HIV among adults increased from 6.4% in 2004/05 to 7.3% in 2011/12. This trend is attributed to both new infections and improved survival as more person living with HIV access ART. Women are disproportionately more affected than men (a prevalence of 8.3% versus 6.1%), and this trend is evident in all regions of the country. In the younger age group 15-24 years, HIV prevalence is estimated at 3.7%; the female HIV prevalence for this age group (4.9%) is two to three fold that of males (2.1%).

- Access to HCT services by the general population has increased; currently estimated at 66% among women and 45% among men compared to 25% and 23% respectively in 2006. The higher coverage among females is attributed to HCT opportunities during MCH and PMTCT services contact.

- Coverage of HIV testing of HIV-exposed infants under 1 year was 46% in 2012/13, showing a steady increase since 2009/10. Prevalence of HIV among those tested was 9%, a significant decline from 19% in 2007. HIV testing of pregnant women increased significantly from 18% in 2006 to 60% in 2011, but there remain large equity gaps by residence, education level, and by wealth quintile. Approximately half of health facilities provide PMTCT services according to SARA, of which approximately 60% collect Dried-Blood Spots for diagnosing HIV in newborns. Only half of facilities providing PMTCT services had Nevirapine syrup in stock on the day of the assessment.

- Individuals accessing ART increased from 57% coverage of persons with advanced HIV in 2011 to 76.5% by end of June 2013. Children comprise 8% of all ART recipients; coverage among eligible children is only 41%. The number of facilities providing ART increased from 398 by March 2011 to 1,073 at the end of June 2013.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Proportion of children exposed to HIV from their mothers access HIV testing within 12 months	29% (2008-09)	30%	32%	46%	75%	Steady increase but need to accelerate progress to reach target
ART Coverage among persons with advanced HIV	53% (2009)	60%	67%	77%	75%	On track to meet target
Other indicators						
HIV prevalence in the general adult population (15-49 years)	6.4% (UAIS 2004/05)	6.4%	7.3%	7.3%	5.5%	The rise is related to ARV availability and other benefits of PMTCT

Data sources and quality

- **Surveys:** Uganda HIV/AIDS Indicator Survey 2004/05, 2011; UDHS 2006, 2011
- **Health facilities:** Data from sentinel surveillance antenatal clinics. HMIS data on reported testing and interventions among pregnant women.
- **Health facility assessment (SARA)**: 2012 and 2013 provide information on trends in readiness to provide HIV testing and counseling, elimination of mother-to-child transmission of HIV, antiretroviral therapy, and HIV/AIDS care and support
- **Estimates:** bi-annual estimates of the HIV epidemiological indicators using UNAIDS models (Spectrum)
- **Quality:** Data from national surveys are good quality and estimates are stable because of large sample. Health facility data has variable quality and completeness

HIV PREVALENCE

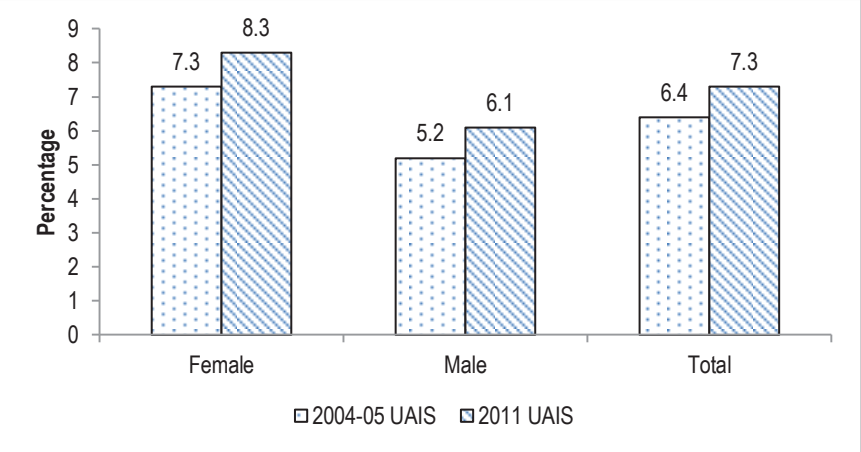
National trends

HIV/AIDS still remains a major health concern in Uganda. Since the advent of the HIV epidemic in 1982, Uganda has made great progress in HIV/AIDS service delivery and prevention. In the period immediately preceding the start of implementation of the current HSSIP, the 1,192, 372 were infected with HIV, 43% (512,070) were male and 57% (630,301) were male. Of these, 87% (1,042, 711) were 15 years and above while 13% (149,611) were below this age. In this year there were 124,261 new infections documented of which 45% (56,079) were male and 55% (68,182) were females. Number of people who died of HIV/AIDS was 64,016 of whom 45% (28,182) were male and 55% (35,205) were female. The prevalence of HIV among women attending ANC was 6.5%.

Despite the achievements to date, the epidemic was found to have shifted from the single younger-aged individuals to older individuals aged 30–35 years, who are married or in long-term relationships. Multiple concurrent partnerships, extra-marital relationships, discordance and non-disclosure are among the key factors driving the spread of HIV in Uganda. There is limited programming for the Most at Risk Populations (MARPs) and yet conspicuous evidence highlights high prevalence rates among these populations.

Figure 69 gives the HIV prevalence estimates for general population 15 to 49 years of age from the two recent national surveys (UAIS 2004/5 and UAIS 2011). The prevalence of HIV in the general population according to the 2011 Uganda AIDS Indicator Survey (UAIS 20011) is 7.3%, an increase from 6.4% as estimated in the UAIS 2004/5. The increase in prevalence is reflected among both women and men aged 15-49 years. Among women, prevalence increased from 7.7% as estimated in the UAIS 2004/5 to 8.3% while that for men increased from 5.2% to 6.1% corresponding to 9% among women 17% among men respectively.

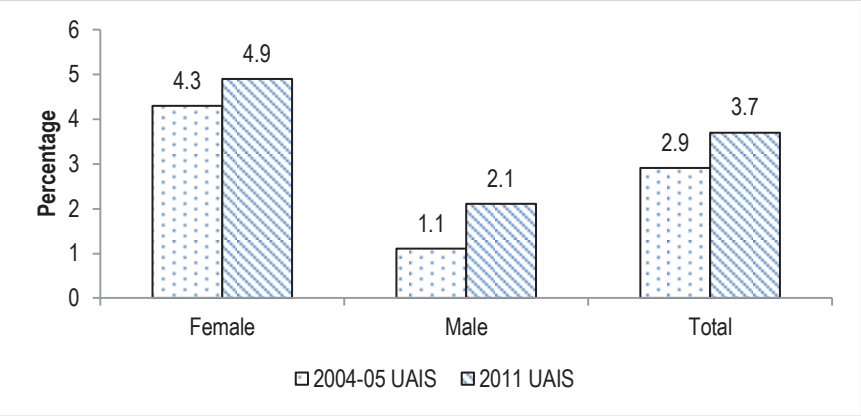
Figure 69: HIV prevalence among women and men between 15 and 49 years of age



Source: UAIS

Figure 70 gives the HIV prevalence estimates for young women and men aged 15-24 years. HIV prevalence among younger people is a rough indication of new infection rates. In the region most infections are sexually transmitted and most people initiate sexual activity around this age and at the same time mortality is still low. Among young adults, HIV prevalence increased from 2.9% in 2004/5 to 3.7% in 2011. Among young women, HIV prevalence increased from 4.3% to 4.9% while among young men, HIV prevalence almost doubled from 1.1% to 2.1%.

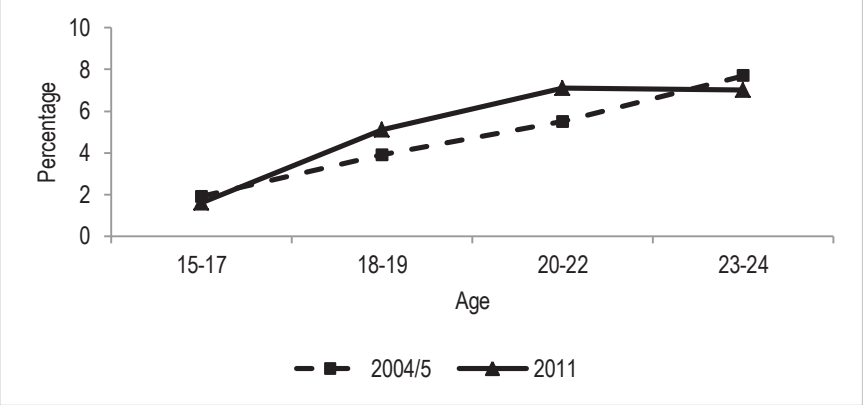
Figure 70: HIV prevalence among women and men between 15 and 24 years of age



Source: UAIS

Figure 71 below shows HIV prevalence among young women by age as estimated in the UAIS 2004/5 and UAIS 2011. It can be seen that in 2011 HIV prevalence was higher among young women 18-22 years compared to that in 2004/5. This may mean that more young people infected through vertical transmission are living longer or that many young women are giving much earlier now than was the case in the early 2000s.

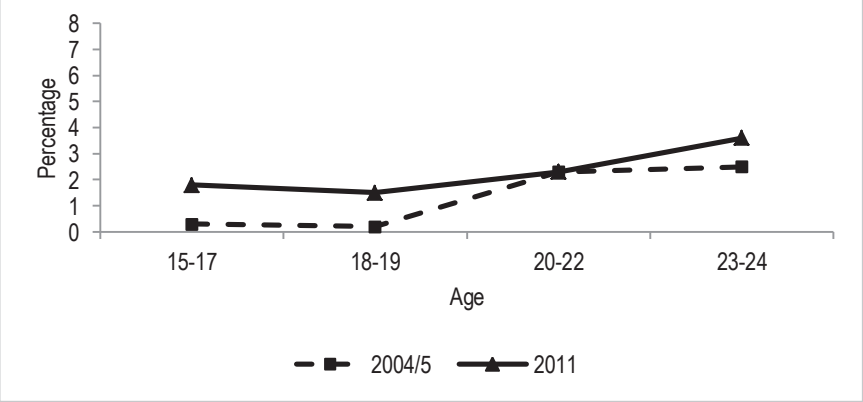
Figure 71: HIV prevalence 15-24 females, UAIS 2011



Source: UAIS

Figure 72 below shows HIV prevalence among young men by age as estimated in the UAIS 2004/5 and UAIS 2011. In 2011 HIV prevalence was higher among young men except among the category 20-22 years compared to that in 2004/5. Like for the reason given for young women, it might be the case that more children are surviving into adulthood with HIV or than more young adults are getting infected earlier compared to 2004/5.

Figure 72: HIV prevalence 15-24 males, UAIS

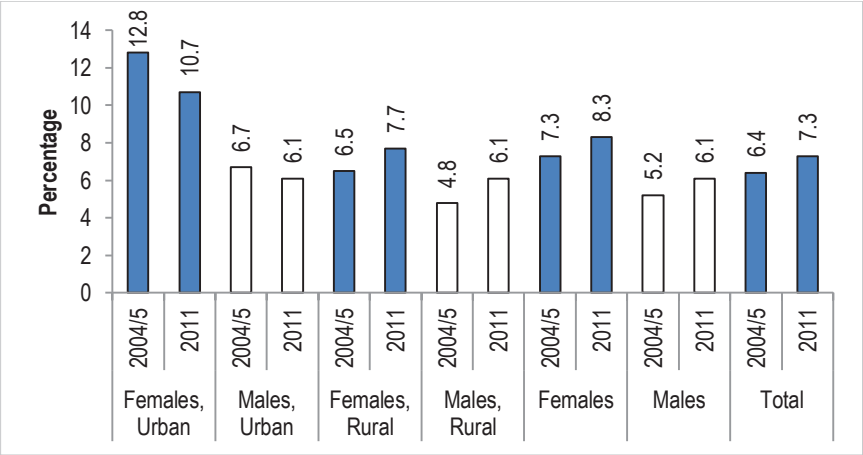


Source: UAIS

Equity

Figure 73 shows HIV prevalence trends by gender and place of residence. While overall HIV prevalence among men and women increased between 2004/5 and 2011, the increased has been in rural areas. The urban areas still have a higher prevalence of HIV but the recent increase is only reflected in rural areas. Among urban women, HIV prevalence dropped from 12.8% to 10.7% and for urban men, it slightly dropped from 6.7% to 6.1%. On the other hand, HIV prevalence among rural women increased from 6.5% in 2004/5 to 7.7% in 2011 while that for rural men increased from 4.8% to 6.1% over the same period.

Figure 73: HIV prevalence trends by gender and place of residence



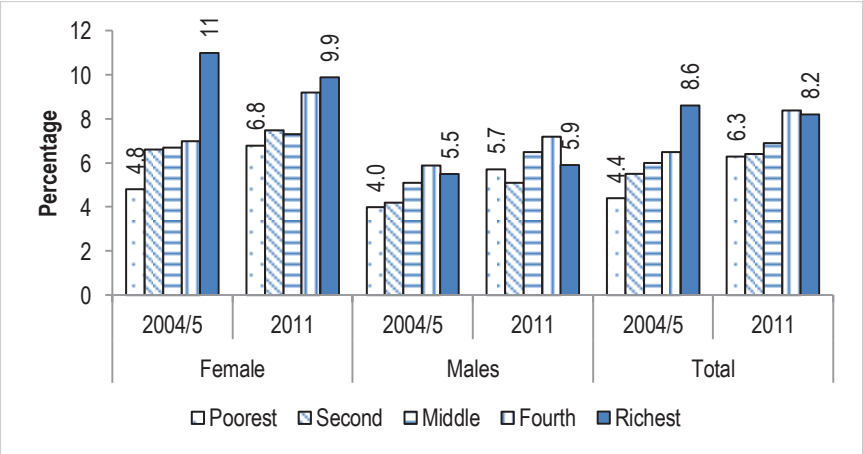
Source: UAIS

Urban areas have higher prevalence of HIV compared to rural areas, but the increase in prevalence between the two surveys is in the rural population

The declines in prevalence were concentrated in the urban population

Figure 74 shows trends in HIV prevalence by wealth status and sex. Contrary to many other health issues, HIV prevalence is higher among the wealthier. Among women, HIV remains most prevalent among the richest women however the disparity between the poorest and richest seems to be narrowing down. In 2004/5, the HIV prevalence among the richest women was more than 2 times higher than that for the poorest women but this has narrowed down to about 1.5 times higher among the richest compare to the poorest. For men, the difference in HIV prevalence by wealth status has been less dramatic compared to that observed among women. In 2004/5, HIV prevalence among the wealthiest men was about 38% higher than that among the poorest but this has greatly narrowed than in 2011 to about 35% higher among the wealthiest men as compared to the poorest.

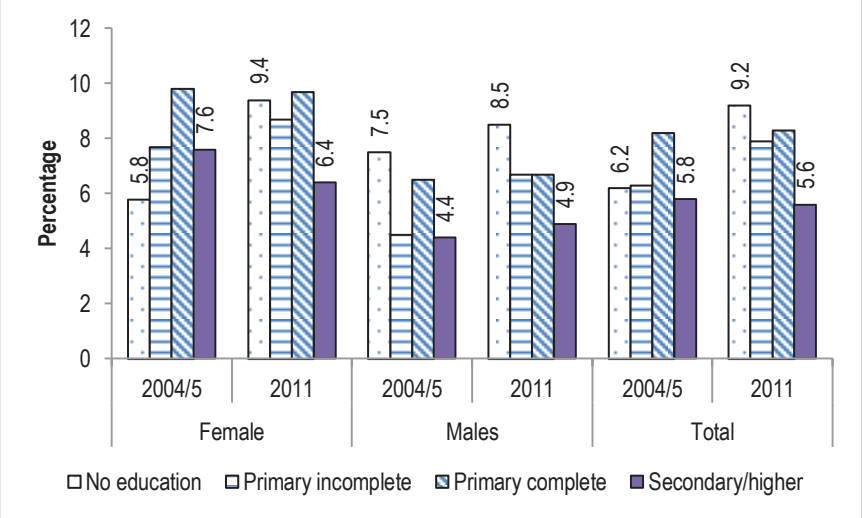
Figure 74: HIV prevalence 15-49, by wealth quintile



Source: UAIS

Figure 75 shows HIV prevalence educational level and sex. In 2004/5, HIV prevalence among women was higher among women with secondary or higher education compared to than among those with no formal education. In 2011, this reversed with a higher prevalence among those with no formal education compared to those with secondary or higher education. Among men, HIV prevalence among those with no education was higher than those with secondary or higher education in 2004/5 and 2011. Overall, it appears that HIV burden is shifting towards individuals with lower educational attainment.

Figure 75: HIV prevalence trends by educational status

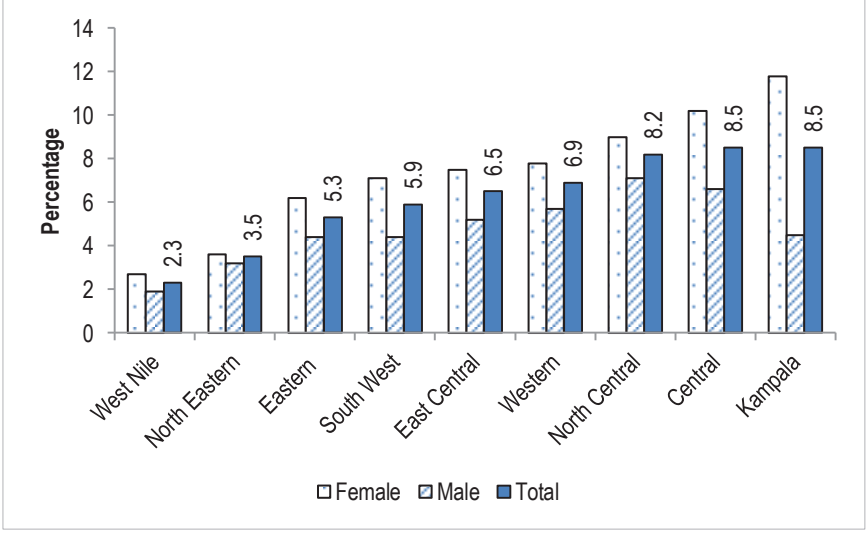


HIV burden is shifting towards individuals with lower education attainment

Source: UAIS

Figure 76 shows HIV prevalence by region and sex as estimated in 2004/5 UAIS survey. The region with lowest HIV prevalence was West Nile at 2.3%, and highest in Central and Kampala region at 8.5%. In all regions HIV prevalence was higher among women compared to men with markedly big Kampala region.

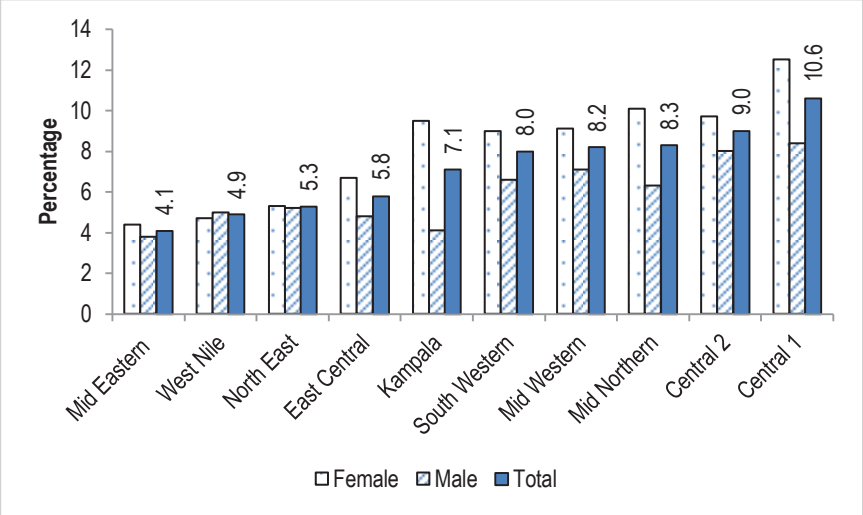
Figure 76: HIV prevalence trends by region. UAIS 2004/5



Source: UAIS

Figure 77 shows HIV prevalence by region and sex as estimated in 2011 UAIS survey. In the 2011 UAIS, regions were revised and do not exactly map onto those used in the 2004/5 UAIS. Central region was split into two; Central 1 and Central 2 and two districts from the 2004-05 East Central region were transferred to Central 2 region. The two central regions have the highest prevalence of HIV while Kampala is no longer has the highest prevalence. Mid-Eastern and West Nile have the lowest prevalence.

Figure 77: HIV prevalence trends by region, UAIS 2011

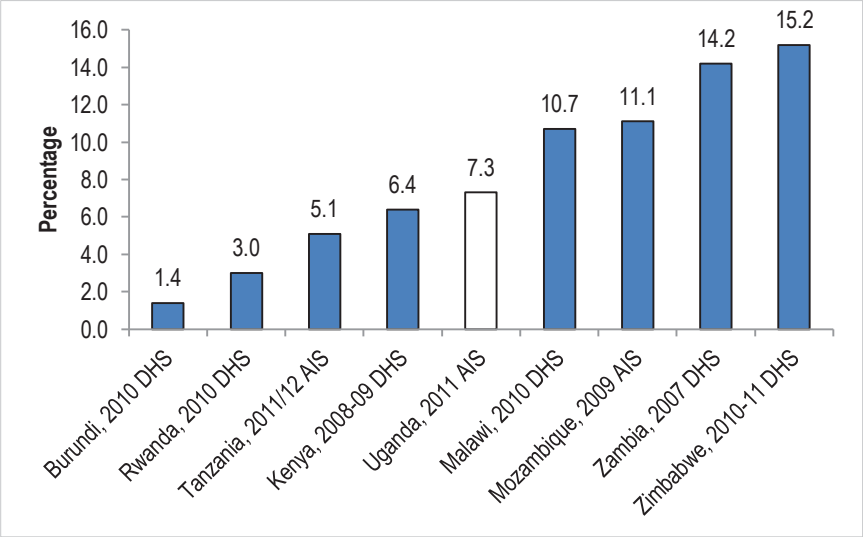


Source: UAIS

Comparative analysis

Figure 78 shows a comparison of HIV prevalence for Uganda and for eight subregional countries based on DHS and AIS data collected between 2007 and 2011. The results show that the level of HIV prevalence in Uganda is the median of the peer countries.

Figure 78: Comparison of HIV prevalence in 9 peer countries using data from the most recent national surveys



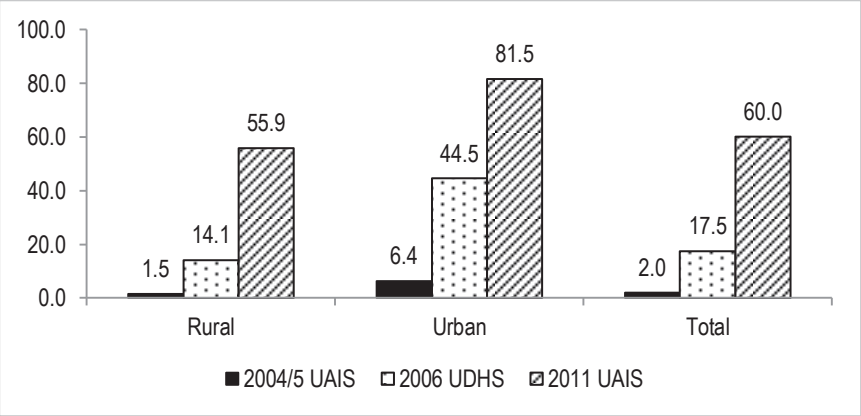
Source: DHS and AIS

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION AND ANTIRETROVIRAL THERAPY

National trends

Figure 79 below shows proportion of pregnant women who received counseling, HIV testing and receiving test results among women who had been pregnant two years prior to the survey. Comparisons are made for the three previous national surveys 2004/5 UAIS; 2006 UDHS and 2011 UAIS. Over the last approximately 10 years, the proportion of pregnant women who tested and receive results has drastically increased from about 2% in 2004/5 to 60% in 2011.

Figure 79: Proportion of pregnant women receiving HIV test with post-test counseling by survey and place of residence.



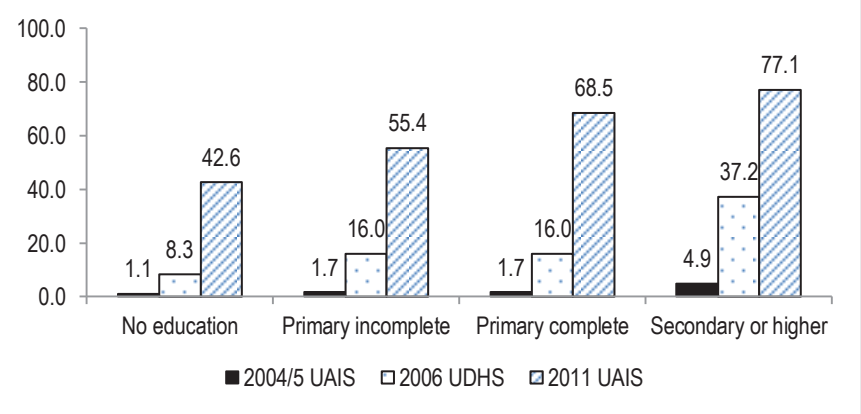
Coverage of HIV testing & counseling among pregnant women increased from 2% to 60% between 2004/05 and 2011

Coverage increased dramatically both in urban and in rural areas; however coverage is still much higher in urban areas

Equity

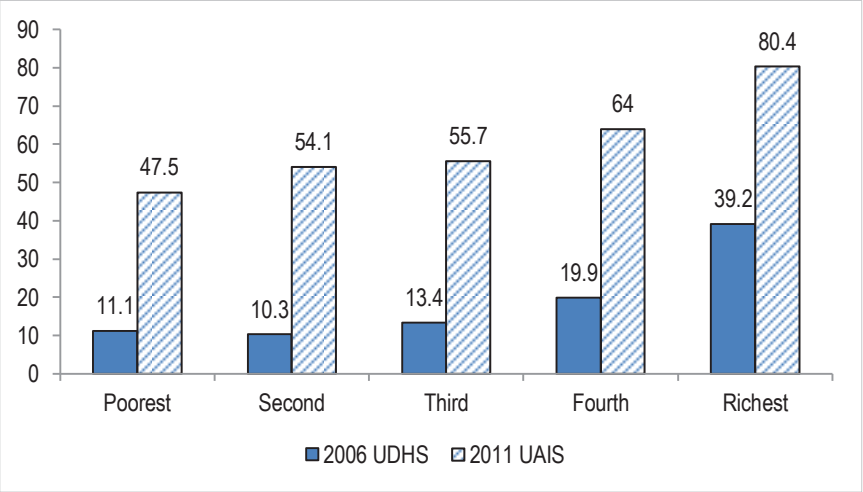
Figure 80 and Figure 81 show the proportion of pregnant women who were counseled, tested and received test results as estimated from the three previous national surveys (UAIS 2004/5; UDHS 2006 and UAIS 2011). From all the surveys, estimates show that a smaller proportion of poor and less educated pregnant women receive tested for HIV.

Figure 80: Proportion of pregnant women receiving HIV test with post-test counseling by survey and level of education.



Source: UAIS and UDHS

Figure 81: Proportion of pregnant women receiving HIV test with post-test counseling by survey and wealth status.



Source: UAIS and UDHS

Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Elimination of Mother-to-Child-Transmission services

Figure 82 shows the percentage of facilities offering PMTCT services in 2012 and 2013. About half of the facilities offer PMTCT services.

Figure 82: Service availability: Percentage of facilities offering PMTCT services (N_{2012} = 95, N_{2013} = 209)

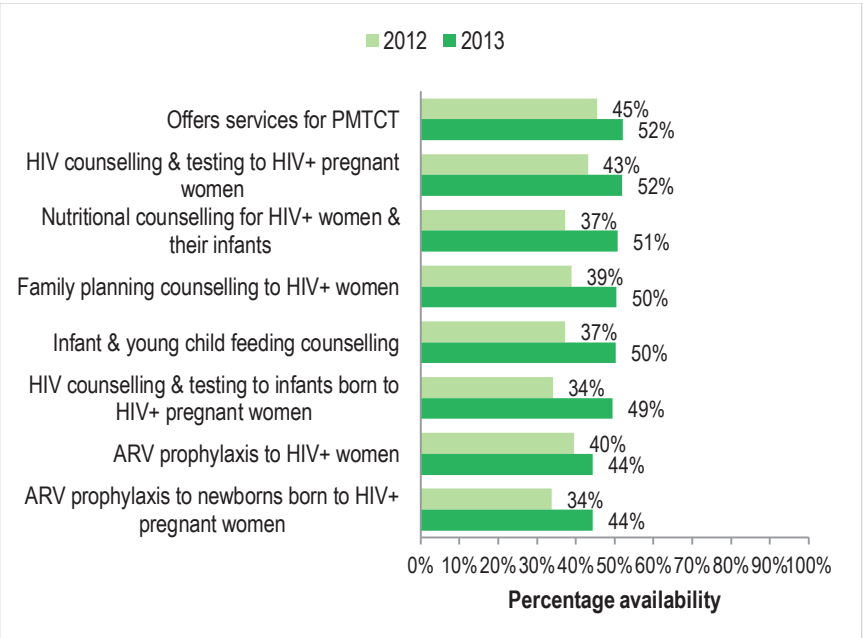
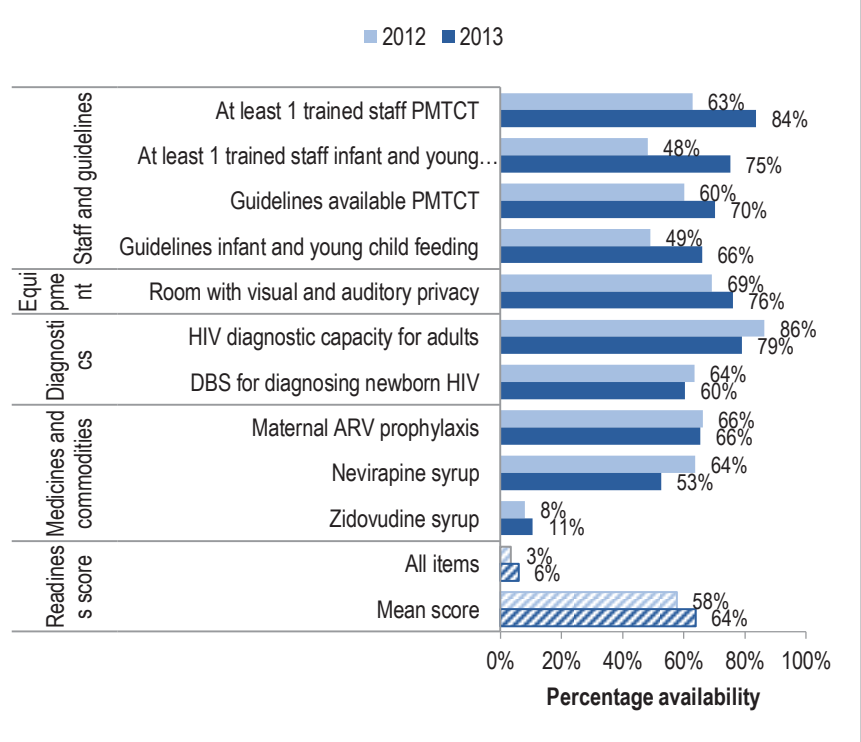


Figure 83 shows the availability of tracer items for PMTCT at facilities that offer the service. The most recent survey (2013) shows that only 6% of facilities that offer PMTCT services had all 10 tracer items. However, 86% reported to have HIV diagnostic capacity for adults and 84% had at least one staff member trained in PMTCT. In 2012 only 63% of the facilities had at least one trained staff member.

Figure 83: Service readiness: Percentage of facilities offering PMTCT services that have tracer items. (N_{2012} = 57, N_{2013} = 123)



Antiretroviral therapy services

Figure 84 shows the percentage of facilities offering ARV prescription, treatment and follow-up. In 2012 one out of four (25%) facilities offered at least one type of ARV service. One year later, the number had increased to one in three (35%).

Figure 84: Service availability: Percentage of facilities offering ART services (N_{2012} = 95, N_{2013} = 209)

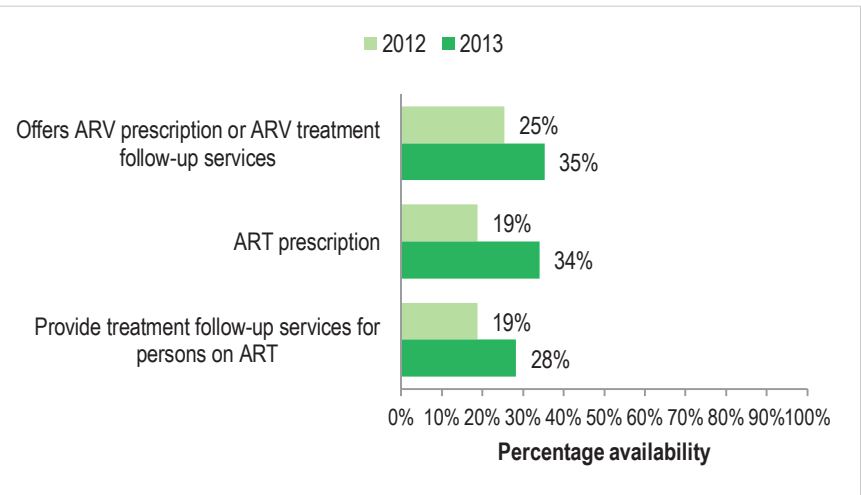
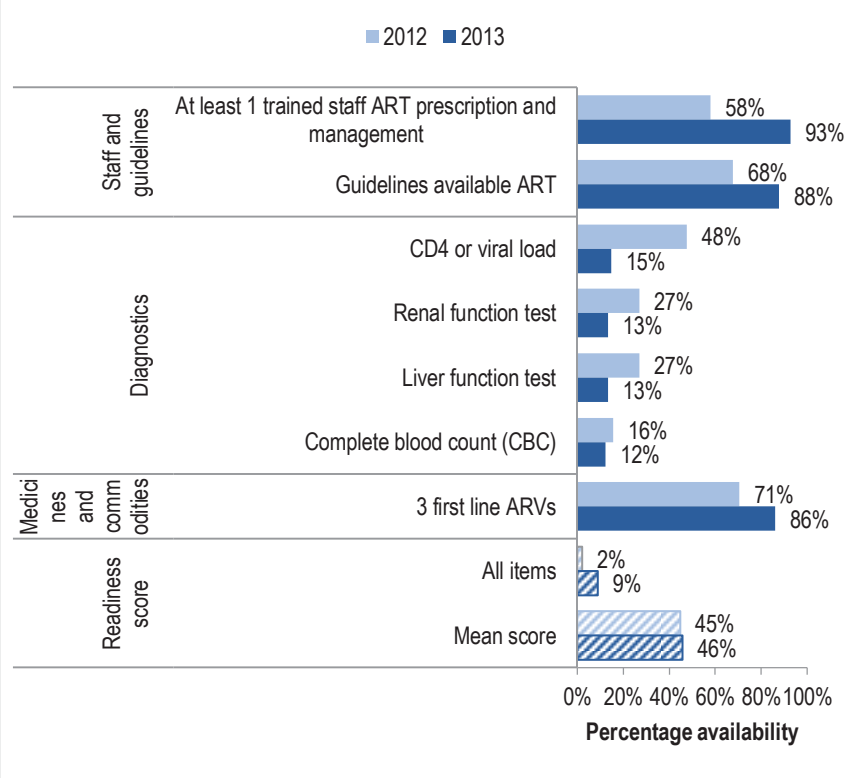


Figure 85 shows the availability of tracer items for ARV services. The figure gives the availability of the tracer items among health facilities reported to offer ARV service. One out of ten facilities had all tracer items (9%) in 2013. This is an improvement compared to 2% in the 2012 survey. Nine out of ten facilities (93%) had at least one staff member trained in ARV prescription and management the last two years. In 2012, only one in six facilities (58%) had staff with recent ARV training. The availability of ARV guidelines also has increased. The availability of three first line ARVs have increased from 71 to 86% from 2012 to 2013. The diagnostic capacity was however reported to be higher in 2012 than in 2013.

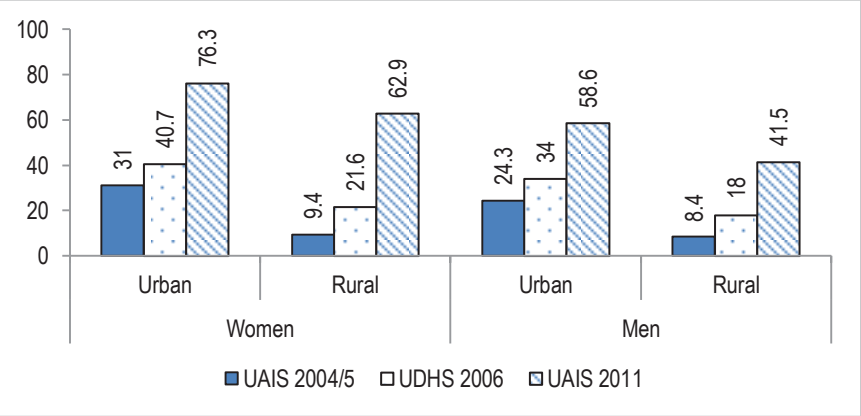
Figure 85: Service readiness: Percentage of facilities offering ART services that have tracer items. (N_{2012} = 34, N_{2013} = 86)



HIV COUNSELING AND TESTING

In the UDHS, it was estimated that 56.6% of adults 15-49 years had ever tested for HIV and received results. Among urban women the proportion who had been counseled and tested rose from 31% in 2004/5 to 76.3% in 2011 while for urban men, this rose from 24.3% to 58.6%. Correspondingly there has been marked increased in proportions tested in rural populations. While only 9.4% of rural women had been tested in 2004/5, this was estimated at about 69% in 2011. The change among rural men has been modest from 8.4% in 2004/5 to 42% in 2011.

Figure 86: Prevalence of counseling and testing by place of residence



For both men and women, there has been a large disparity in levels of HIV testing by education level and household wealth status as per estimates from the three previous national surveys. The levels of HIV counseling and testing from the three previous national surveys show that individuals from lower socio-economic status and those with low formal education have lower testing rates compared to their wealthier and more educated counterparts.

Figure 87: Prevalence of counseling and testing by education level

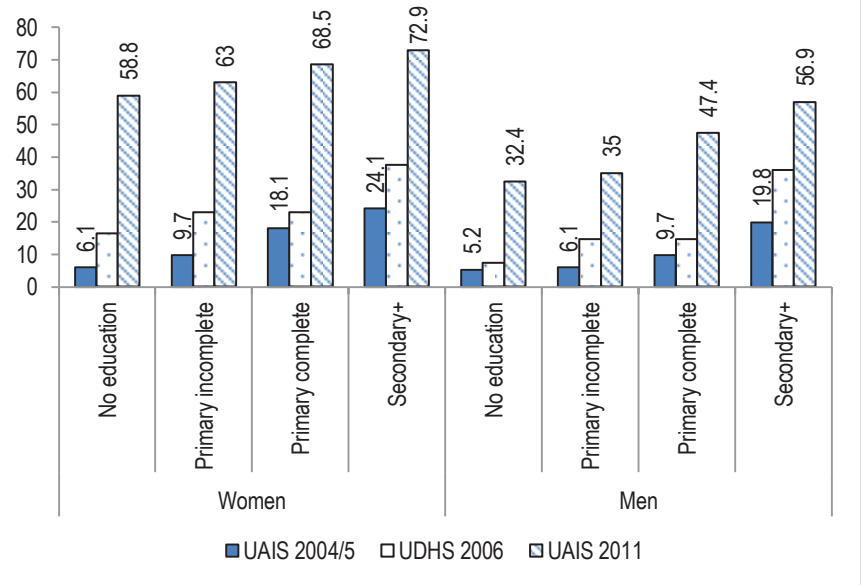
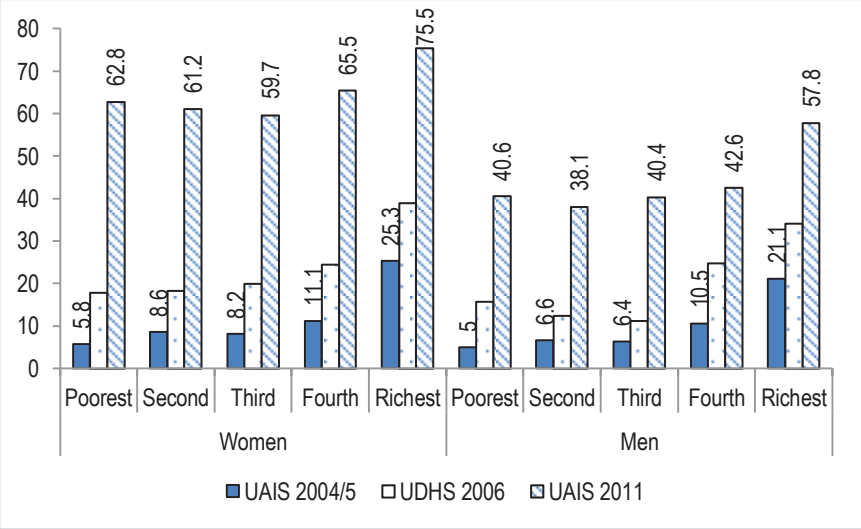


Figure 88: Prevalence of counseling and testing by wealth status



HIV counseling and testing levels vary greatly across the country by region. While about 70% of mid northern region has ever tested for HIV, only 38% of adults in the Mid-Eastern region have ever tested. With the exception of Mid-Eastern and East central regions, the rest of the region have over 50% as having ever received counseling and testing for HIV and received the test results.

Figure 89: HIV counseling and testing coverage by region

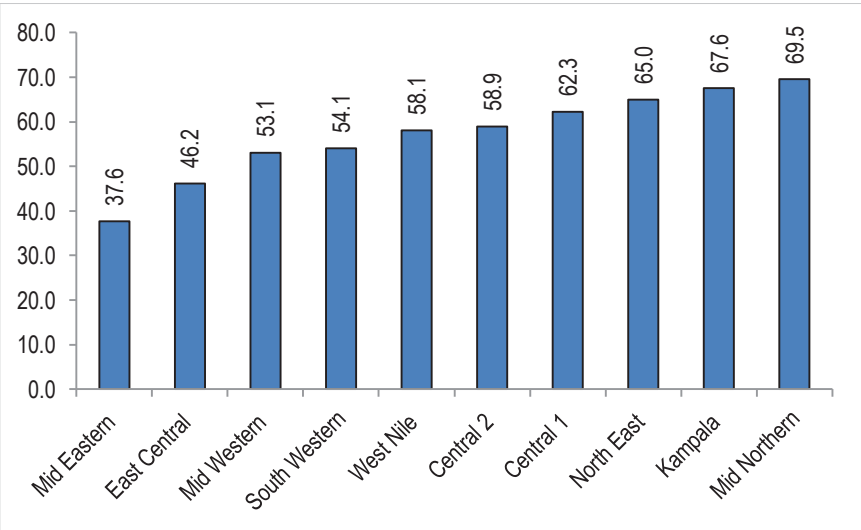
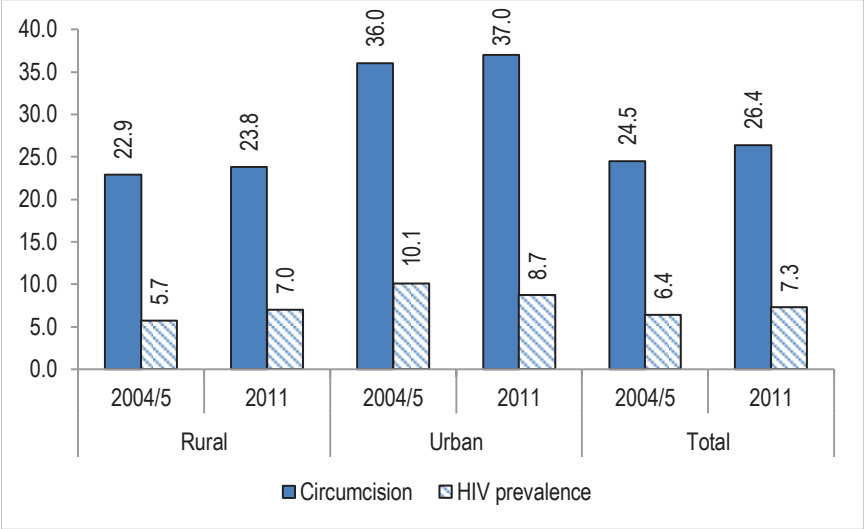


Figure 90 shows the proportion of men 15-49 years have were circumcised as estimated in the UAIS 2004/5 and UAIS 2011 alongside HIV prevalence. From 2004/5 the proportions of men who are circumcised have changed very little from 24.5% in 2004/5 to 26.4% in 2011 while prevalence of HIV increased from 6.4% to 7.3%. A higher proportion of men in urban areas were circumcised compared to rural areas but in both areas, the change between the two surveys has been very small.

Figure 90: Prevalence of circumcision and HIV by place of residence



Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

HIV testing and counseling services

Figure 91 shows the percentage of facilities offering HIV testing and counselling services in 2012 and 2013. Approximately three quarters of health facilities provide testing and counselling services. The Uganda AIDS control programme also tracks facilities providing HIV testing and counselling services, and reports that these services are available in 37% of facilities, including all hospitals and HC IVs, 80% of HC IIIs, and 30% of HC IIs. The SARA results are similar for hospitals and HC IVs, but finds that 96% of HC IIIs and 60% of HC IIs are providing testing and counselling services, indicating some discrepancy. The SARA also found that private facilities were most likely to provide HCT services than public facilities (72%), and that urban facilities were more likely to provide HCT services (81%) than rural (75%).

Figure 91: Service availability: Percentage of facilities offering HIV testing and counselling services (N2012 = 95, N2013 = 209)

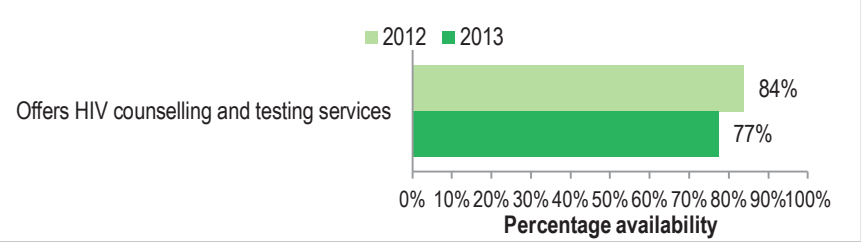
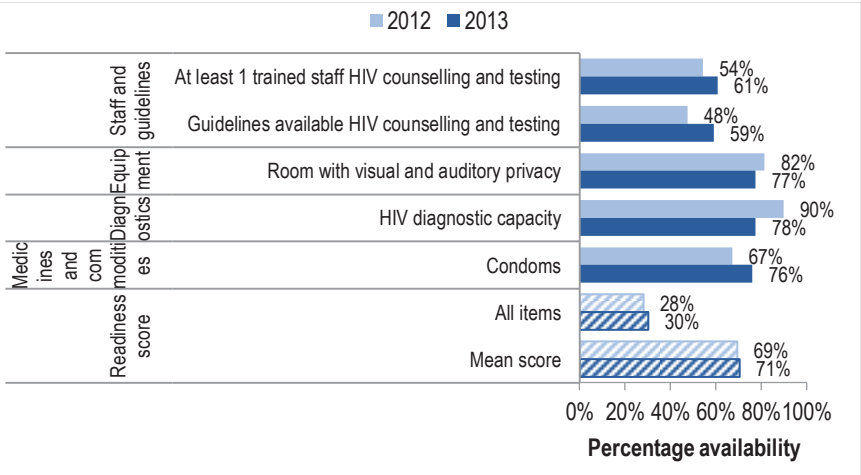


Figure 92 shows the availability of tracer items for HIV testing and counselling at facilities that offer such services. In the most recent survey three out of ten facilities (30%) had all 5 tracer items. On average the facilities reported to have 71% of the tracer items. This is similar to the situation in 2012. Eight in ten facilities were able to conduct and HIV test (RDT or ELISA) on-site, while three quarters of facilities offering HCT had condoms in stock on the day of the assessment.

Figure 92: Service readiness: Percentage of facilities offering HIV testing and counselling services that have tracer items. (N_{2012} = 78, N_{2013} = 165)



HIV/AIDS care and support services

Figure 93 shows the percentage of facilities offering such services. In 2012 two out of three facilities (67%) offered at least one type of HIV/AIDS care and support services. In 2013 only half of the facilities (54%) offered these services.

Figure 93: Service availability: Percentage of facilities offering HIV/AIDS care and support services (N_{2012} = 95, N_{2013} = 209)

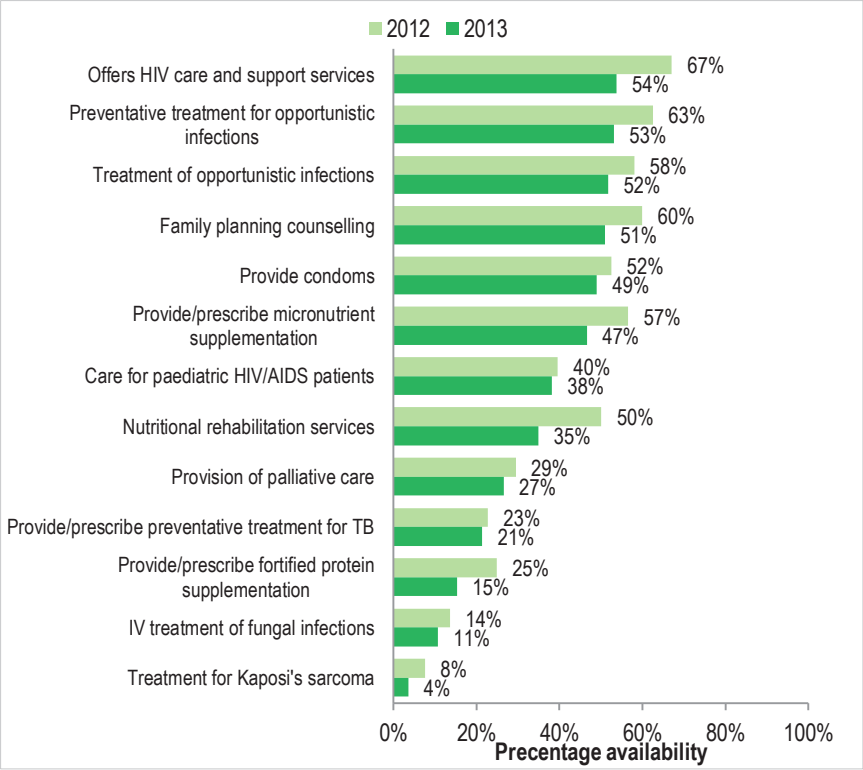
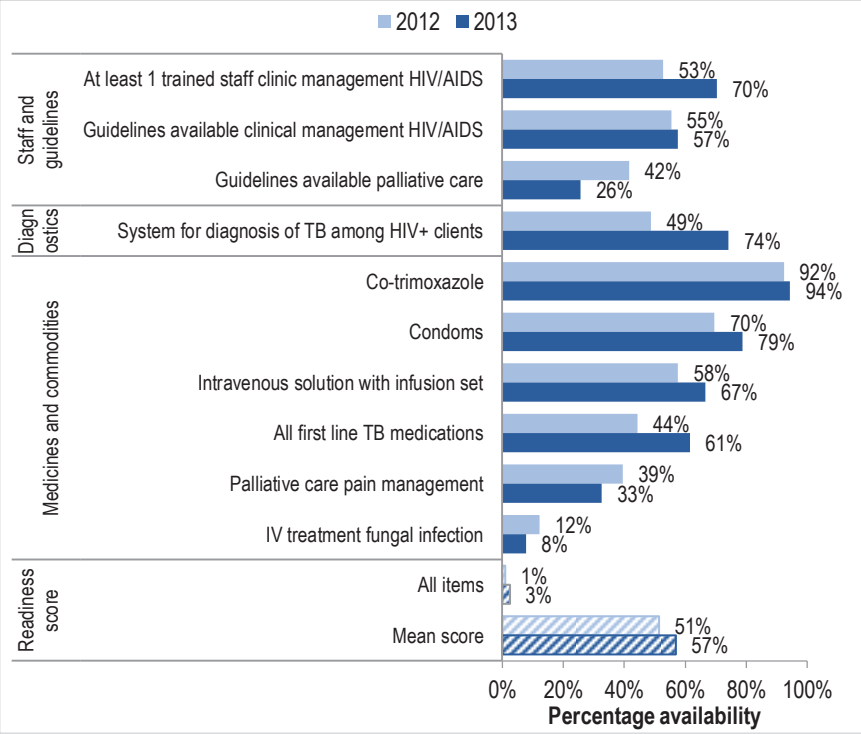


Figure 94 shows the availability of selected tracer items for HIV/AIDS care and support services. The figure gives the availability of the tracer items among health facilities reporting to offer these services. Only three per cent of the facilities have all tracer items in 2013. On average, the facilities reported to have 57% of the tracer items. Seven out of ten facilities (70%) have at least one staff member trained in clinical management of HIV/AIDS the last two years. In 2012, only half of facilities (53%) had at least one staff member with such training.

Figure 94: Service readiness: Percentage of facilities offering HIV/AIDS care and support services that have tracer items. (N_{2012} = 70, N_{2013} = 126)



Sexually transmitted infections: diagnosis and treatment services

Figure 95 shows the percentage of facilities offering STI diagnosis and treatment services in 2012 and 2013. Almost all health facilities offer STI services.

Figure 95: Service availability: Percentage of facilities offering STI services (N_{2012} = 95, N_{2013} = 209)

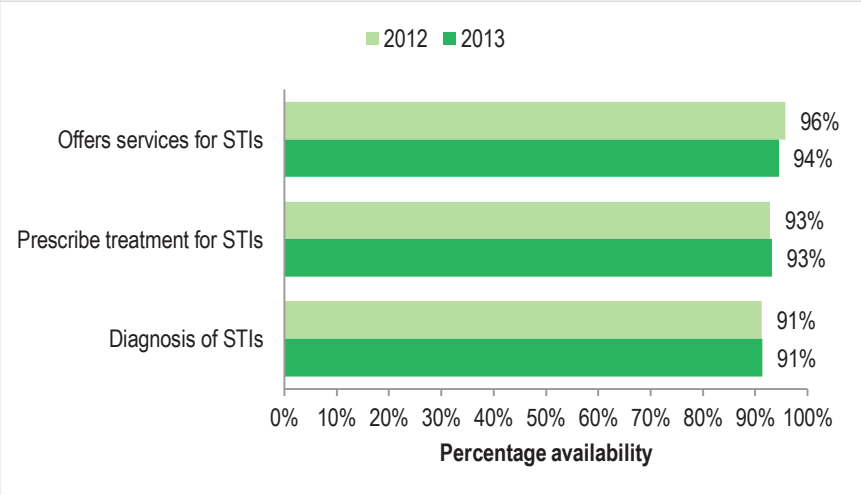
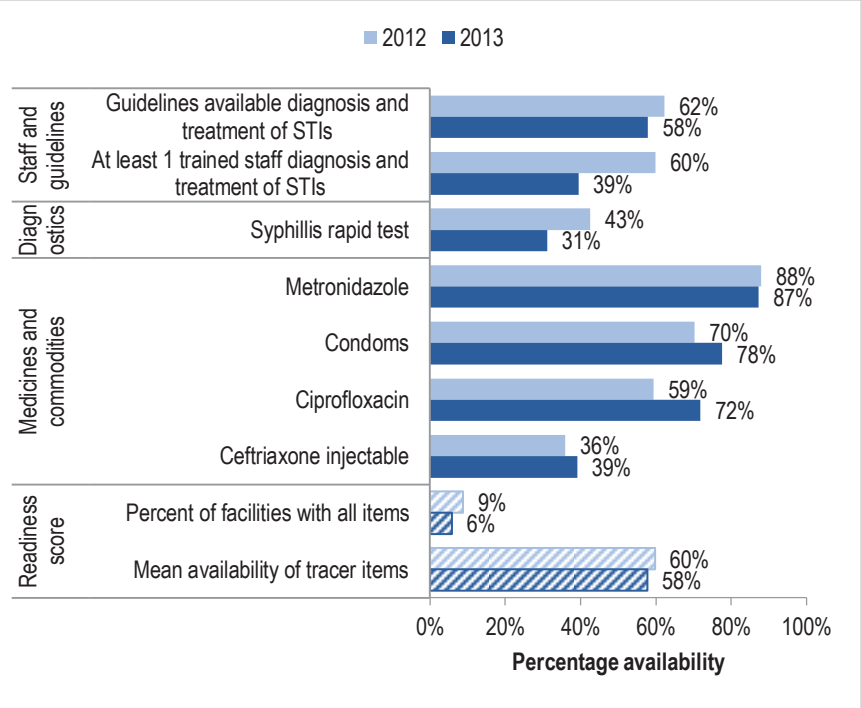


Figure 96 shows the availability of tracer items for health facilities offering STI services. One out of ten (9%) of facilities had all seven tracer items. On average, facilities had four of the seven tracer items (60%). A third (31%) of facilities offering STI services could provide a syphilis rapid test on site in 2013. In 2013, four out of ten (39%) of the facilities had at least one staff member trained in diagnoses and treatment of STIs the last two years. Metronidazole was available in nine out of ten facilities providing STI services.

Figure 96: Service readiness: Percentage of facilities offering STI services that have tracer items. (N_{2012} = 93, N_{2013} = 197)



4.3 TUBERCULOSIS

Main findings

- Case detection rate has stagnated between 54% and 57% over the past four years.
- Treatment success rate is increasing and is on track to meet the HSSIP target. Cure rate has improved but general performance is still low (half of target value).
- Uptake of co-trimoxazole among TB/HIV patients has remained high over time at 93%. Uptake of ART among TB/HIV patients shows an increasing trend; currently about half of co-infected patients start on ART.
- Approximately four in ten facilities provide TB services according to SARA 2013. Four in ten facilities can conduct a sputum smear test on-site, while similar proportion prescribe or provide drugs to TB patients, or provide treatment follow-up. Almost all facilities (95%) providing TB services had a system in place to diagnose HIV among TB clients, and eight in ten had on-site HIV diagnostic capacity on the day of the assessment.

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
TB case detection rate	57.3%	53.9%	53.7%	57%	70% (68% NTSP target)	No progess
Other indicators						
TB cure rate /Treatment success rate	Cure: 32% (34% NTSP baseline for 2010) TSR: 69.9% NTSP baseline for 2010)	Cure: 40% TSR: 67.3% (2009)	Cure: 34.9% TSR: 71.1% (2010)	Cure: 39.5% TSR:77.5% (2011)	Cure: 80% (45% NTSP target) TSR: 85% (80% NTSP target)	Treatment success rate is showing good progress and is on track to meet the target. Cure rate is far below the HSSIP target (but NTLP target may be reached).
Proportion of TB/HIV patients started on cotrimoxazole	88%	90% (NTSP)	90%	93%	100% (98% NTSP target)	Increasing trend, approaching target
Proportion of TB/HIV patients started on ART	18.5%	34% (NTSP)	49%	56%	50%	Target met

Data sources and quality

- **Health facilities report:** NTLP quarterly reports; WHO TB profile
- **Quality:** health facility data are the main source of data. An comprehensive assessment of the TB reporting system was conducted in Q1 2013 (TB surveillance checklist).

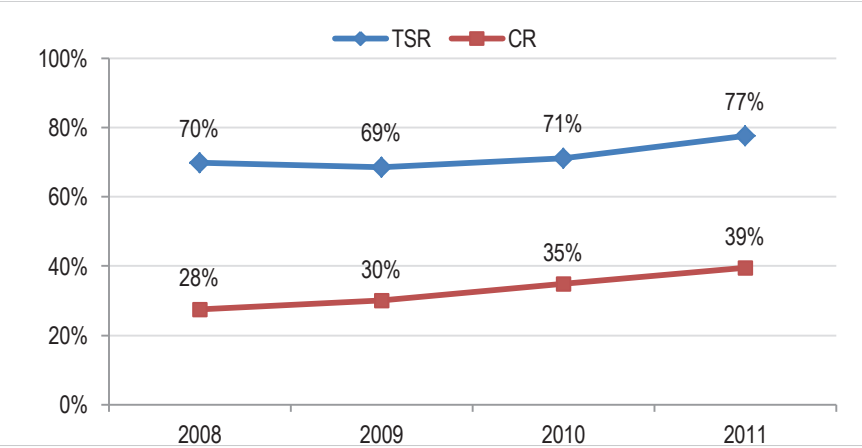
National trends

The TB case notifications have been fairly stable at around 45,000 new cases per year, but since the population is growing, the case notification rate has declined from 148 per 100,000 population in 2009 to 138 per 100,000 in 2012. Among the new cases in 2012, 58% were smear positive, 27% smear negative and 12% extrapulmonary TB. There was little change over time: in 2008, these figures were 56%, 28% and 11% respectively.

TB treatment success rate among smear positives

The treatment success rate among smear positive cases was at 77% in 2011, showing an increase since 2008. The cure rate is about half the treatment success rate in all years. The treatment success rate is not too far below the HSSIP/WHO target of 85% for 2014/15.

Figure 97: TB treatment success rate and cure rate



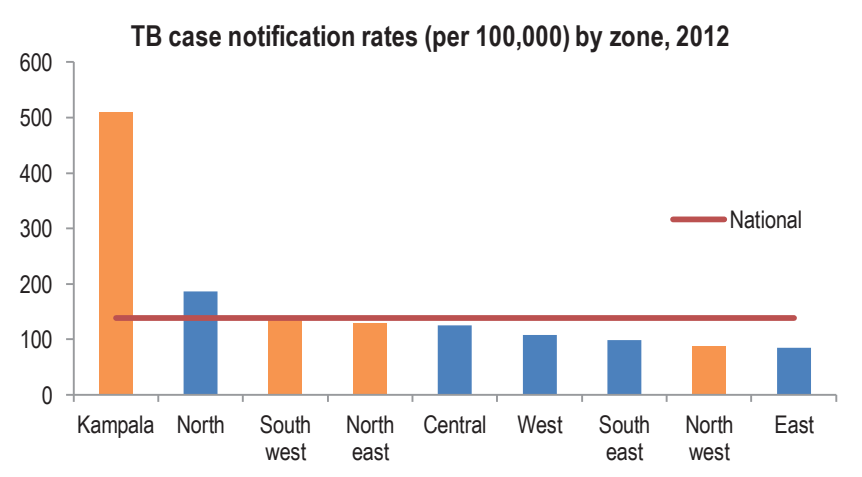
TB treatment success rate has increased to 77%

Cure rate has also increased from 28% to 39%

Equity

The TB case notification rate was 138 per 100,000 in 2012, showing a decrease of 3.4% since 2010. By zone, Kampala continues to stand out with a case notification rate more than 3.5 times higher than the national average, while East, North west, and South east have rates below 100. Notification rates in Kampala, South west, North east, and North west show an increase since 2010.

Figure 98: TB case notification rates (per 100,000) by zone, 2012



Source: NTLP

TB & HIV

In 2012, 86% of the 47,211 TB cases (incident and retreatment) were counselled and tested for HIV status. This is above the 85% target of Global Stop TB, but is lower than the HSSIP target of 100%.

Among the TB cases, 43% were HIV positive in 2012; 94% of the co–infected patients were put on Co-trimoxazole Preventive Therapy (CPT) against opportunistic infections; 49% of the co-infected were initiated on ARVs (2012).

Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Tuberculosis diagnosis and treatment services

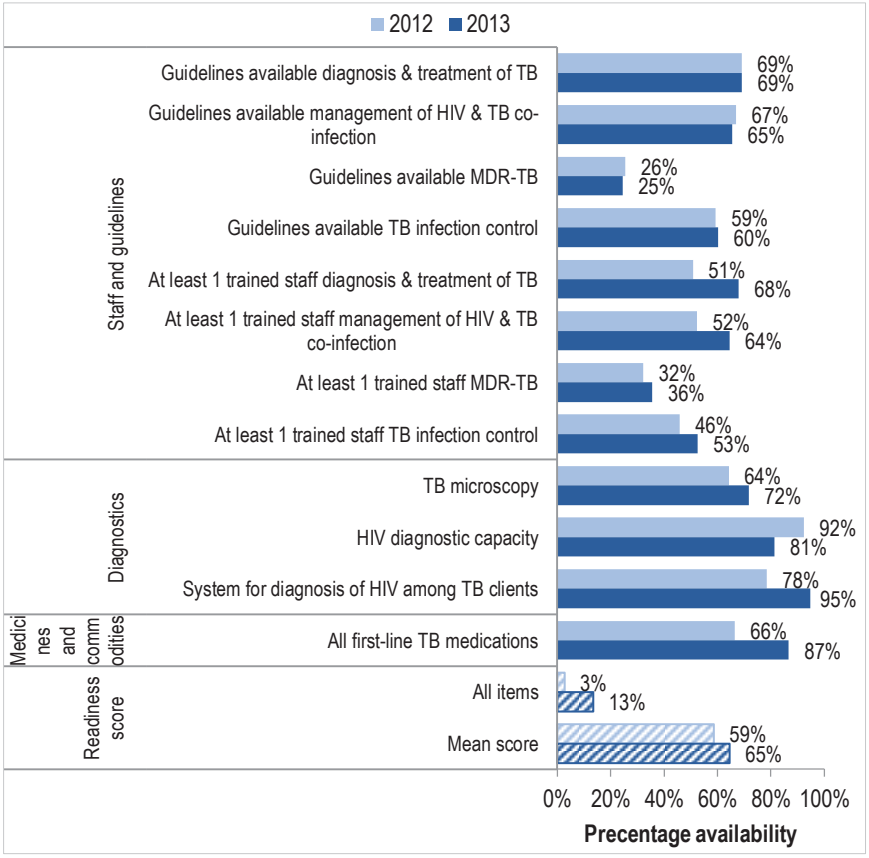
Table 9 shows the percentage of facilities offering TB services in 2012 and 2013. Both for 2012 and 2013 the surveys show that approximately four in ten health facilities offer TB services.

Table 9: Service availability: Percentage of facilities offering TB services (N_{2012} = 95, N_{2013} = 209)

	2012	2013
Offers TB services	**45%**	**42%**
TB diagnosis	33%	41%
TB diagnostic testing	-	39%
Sputum smear microscopy examination	-	39%
Clinical symptoms	-	31%
Chest X-ray	-	6%
Culture	-	2%
Rapid test (GeneXpert MTB/RIF)	-	2%
TB treatment	35%	
Prescription of drugs to TB patients	-	38%
Provision of drugs to TB patients	-	38%
Management and treatment follow-up	-	37%

Figure 99 shows the availability of tracer items for TB diagnosis and treatment at facilities that offer TB services. In the most recent survey one in 8 facilities (13%) had all 12 tracer items. Nine out of ten (87%) have all the first line TB medications. This is an increase since 2012, when two thirds (66%) had all the first line medications. On average the facilities in 2013 have 65% of the tracer items. The same year as many as 95% of the facilities has a system for diagnosis of HIV among TB patients. The figures from 2013 show that 7 out of 10 (68%) of the facilities that offer TB services have at least one staff member trained in diagnosing and treating TB. In 2012 this was the case for only half of the facilities (51%).

Figure 99: Percentage of facilities offering TB services that have tracer items. (N_{2012} = 50, N_{2013} = 103)

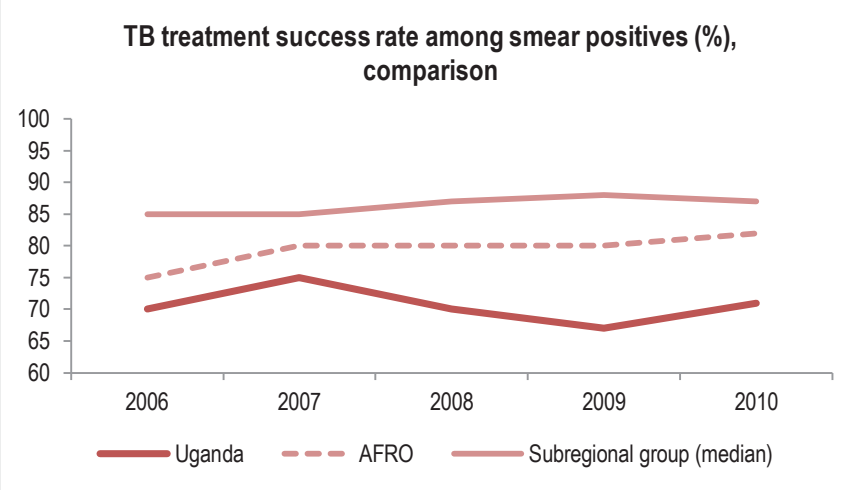


Comparative analysis

The comparative analysis uses WHO estimates, comparing Uganda with the average of all countries in the WHO African region (AFRO) and with the median value of a subregional group of nine countries (Burundi, DR Congo, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Zambia).

Uganda's treatment success rate is lower than the average of the region and the subregional group. It has the lowest treatment success rate among the 10 countries in the subregional group.

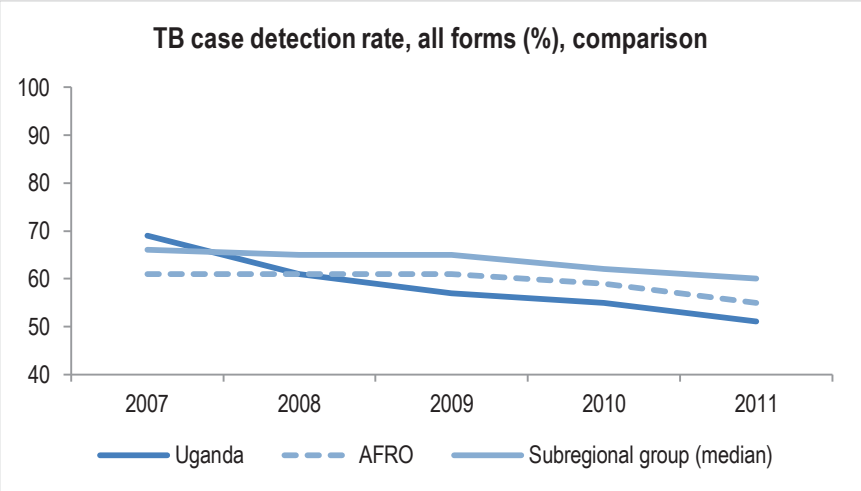
Figure 100: TB treatment success rate among smear positives (%), comparison



Source: WHO estimates

Uganda's case detection rate is also worse than that of the African region and the subregional group of countries. The level of case detection is consistently lower (except in 2007), and moreover the declining trend appears to be greater than that observed in the region as a whole.

Figure 101: TB case detection rate, all forms (%), comparison



Source: WHO estimates

4.4 NEGLECTED TROPICAL DISEASES

There are no indicators for neglected tropical diseases among the core 26 HSSIP 2010/11 – 2014/15 indictors. However, there are a number of indicators in the broader set of monitoring indicators for HSSIP, and can be found in the Annex under strategic interventions 1.2.5 to 1.2.12. NTDs are co endemic in various parts of the country. Under the current HSSIP, focus is on eliminating Onchocerciasis, Trachoma, Lymphatic Filariasis, Intestinal worms and Schistosomiasis using Mass Medicine Administration (MMA) to affected communities. This will be achieved by ensuring high treatment coverage of above 80%.

For case management NTDs which include Sleeping Sickness and Leishmaniasis, the main emphasis has been on improved early case detection and provision of medicines to all affected persons. In addition to the above interventions, success has been achieved through, increased advocacy, strong political commitment, social mobilization, community awareness and vector control efforts. NTD control programme monitoring indicators that have been identified over time, and can be found in Table 10.

Table 10: NTD control indicators with baselines, achievements, and targets.

Indicator	Baseline 2008/09	Achievement 2011/12	Target 2014/15	Comment
Onchocerciasis				
Positivity of fresh water crabs	69%	2.5%	0%	Good progress
Reduction of oncho worms in endemic communities	>80%	25.4%	0%	Good progress
Lymphatic filariasis				
Proportion of endemic implementation units having antigeneamia prevalence <2% or microfilariae prevalence <1%.	0%	14.8%	35%	
Number of hydrocelectomies done	No data available	No data available		
Schistosomiasis/STH				
Prevalence of heavy intensity of infection to <1%	>70%	37%	10%	Good progress
Sleeping sickness				
Treatment success rate improved to 95% at completion of therapy	80%	90%	95%	

4.5 OUTBREAK/NOTIFIABLE DISEASES

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Proportion of households in Uganda with pit latrines	69.7% Urban: 77% Rural: 69.2%	71% Urban: 81% Rural: 69.2%	71% Urban: 81% Rural: 69.8%	70%	72% Urban: 100% Rural: 77%	Slow progress but with more effort target could be achieved

In 2000, Uganda adopted the World Health Organization, Regional Office for Africa (WHO/AFRO) strategy of integrated disease surveillance and response (IDSR) in which epidemic prone and other diseases of public health importance are reported using an integrated system. In this strategy, health personnel at district, health sub-district, and health facility levels, join with communities to monitor report and respond to all diseases on the national priority list. Table 11 shows the number of cases and deaths due to outbreaks in the first half of the HSSIP 2010/11 – 2014/15.

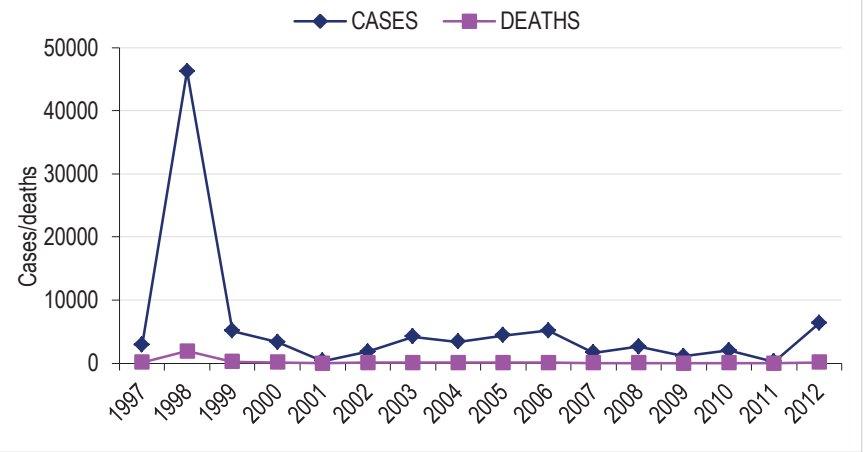
Table 11: Cases and deaths due to disease outbreaks between 2010/11 and 2012/13.

Disease or Condition	Affected Districts	Cases and Deaths
Yellow Fever	Agago, Abim, Lamwo Pader and Kitgum	157 cases with 41 deaths 13 laboratory confirmed cases were reported
Acute Hemorrhagic Conjunctivitis (Red eyes)	26 districts affected	8,272 cases
Ebola Virus Disease	Kibaale and Luwero ,	Kibaale-24 cases,17 deaths Luwero -7 cases 4 deaths
Marburg Virus Disease	Kabale, Ibanda, Kampala	Kabale -14 cases, 7 deaths Ibanda -12 cases, 8 deaths Kampala- 2 cases, 0 deaths
Plague	Arua and Zombo	19 cases, 3 deaths
Cholera	17 districts	5448 cases with 126 deaths
Measles	44 districts	At least 8734 cases with 45 deaths

Cholera

Cholera has been endemic in Uganda since 1979, when the first epidemic was reported. Sporadic cases are seen throughout the year with cases concentrated during the rainy season. Figure 102 shows the number of cholera cases and deaths from 1997 to 2012. The largest cholera epidemic occurred in 1998, when there were over 40,000 cases and 1,600 deaths. More recently, there was an outbreak in the western part of the country in 2013 with over 5000 cases and 126 deaths.

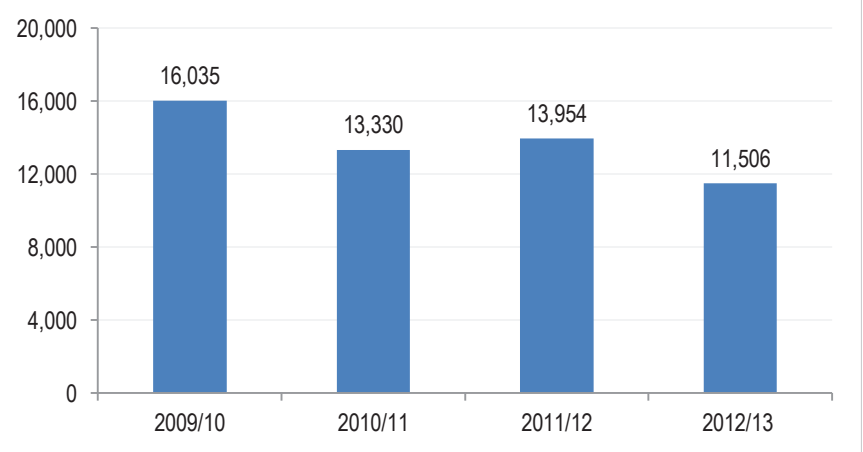
Figure 102: Trend of Cholera cases in Uganda, 1997 to 2012



Animal bites

The number of animal bite cases has decreased by approximately 30% since 2009/10. The largest proportion of animal bites are reported in Wakiso district (12% of all cases) and Kampala (7%), as there are reputed treatment centres in these districts.

Figure 103: Number of animal bite cases, 2009/10 – 2012/13



5 NONCOMMUNICABLE CONDITIONS AND INJURIES

Although there are no indicators for non-communicable diseases, mental disorders or injuries among the core 26 HSSIP 2010/11 – 2014/15 indicators, tracking these conditions, their risk factors and interventions is becoming increasingly important. This is because they are gradually getting more prevalent in Uganda as a cause of death and poor-health.

There are no reliable data on cause-specific mortality and burden of disease in Tanzania. Therefore, one has to rely on estimates. According to WHO statistics for 2008, 13% of the total years of life lost were due to non-communicable diseases and 8% due to injuries. The remaining 78% was due to communicable diseases. According the recent IHME-GBD 2010 study none of the non-communicable conditions appears in the top 10 causes of DALYs[3]. This section briefly describes the current evidence, as future plans will likely give greater prominence to NCDs and injuries.

5.1 NONCOMMUNICABLE DISEASES

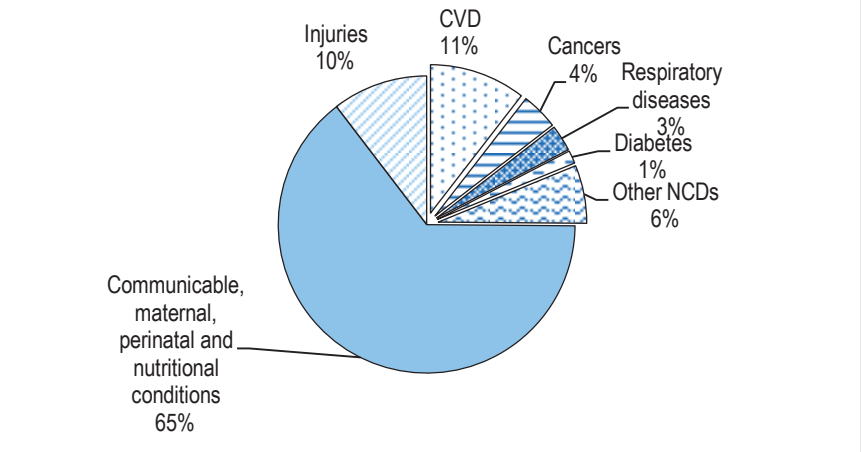
Data sources

- **Surveys:** There has been no nationally representative survey on non-communicable risk factors profile. A STEPS survey has been planned but has not yet been implemented.
- **Estimates:** WHO generates estimates using models using data from multiple sources.
- **Health facility assessment (SARA):** 2012 and 2013 provide information on trends in readiness for health care facilities to provide diagnostic and treatment services for diabetes, cardiovascular disease, and chronic respiratory disease

There is a paucity of data on NCDs. Estimates generated by WHO show that non-communicable diseases contribute about 25% of all deaths in the general Ugandan population. Of these, age standardized estimates indicate that cardiovascular diseases are the leading cause of death among NCDs followed by chronic respiratory diseases and cancers.

[3] Among the non-communicable disorders major depression disorder (14), epilepsy (15), low back pain (16), congenital anomalies (20), COPD (20), stroke (23), ischemic heart disease (24) and anxiety disorders (25) are in the top 25. Also road injuries (11), fire (19), interpersonal violence (21), drowning (22) are in the top 25. Most of these conditions are on the rise.

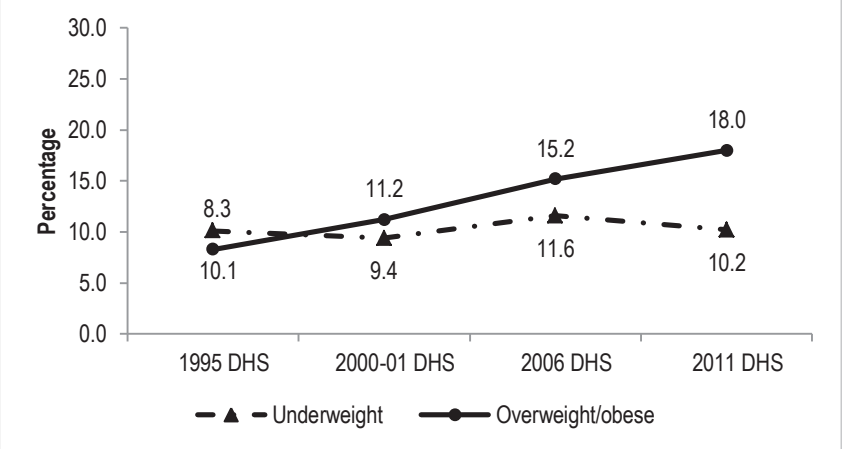
Figure 104: Percentage distribution of all causes of deaths for all ages groups.



Source: WHO NCD Country Profile 2008

Understanding the epidemiology of both behavioural and metabolic risk factors for non-communicable diseases is important in designing interventions for prevention. Data of risk profile for NCD remain scant and shows that these factors are on the increase. It is estimated that about 6.8% of Ugandans smoke (12.3% for males and 1.5% females). On the other body mass estimates show that 24.2% of Ugandan are overweight or obese (24.5% for females and 23.9% for males). Obesity is a known risk factor for several non-communicable diseases including cardiovascular diseases, diabetes and some cancers. Figure 105 shows trends in proportion of women who are overweight/obese. Proportion of women who are underweight is also presented for comparison. It is evident that the proportion of women who are either overweight or obese is increasing in Uganda. While overweight and obesity are on the increase, the proportion of women who are underweight has virtually remained constant over a period of 20 years. In the UDHS 2011, it was estimated that about 18% of women were either overweight or obese while about 10% were underweight.

Figure 105: Trends in proportion of overweight and obesity among women



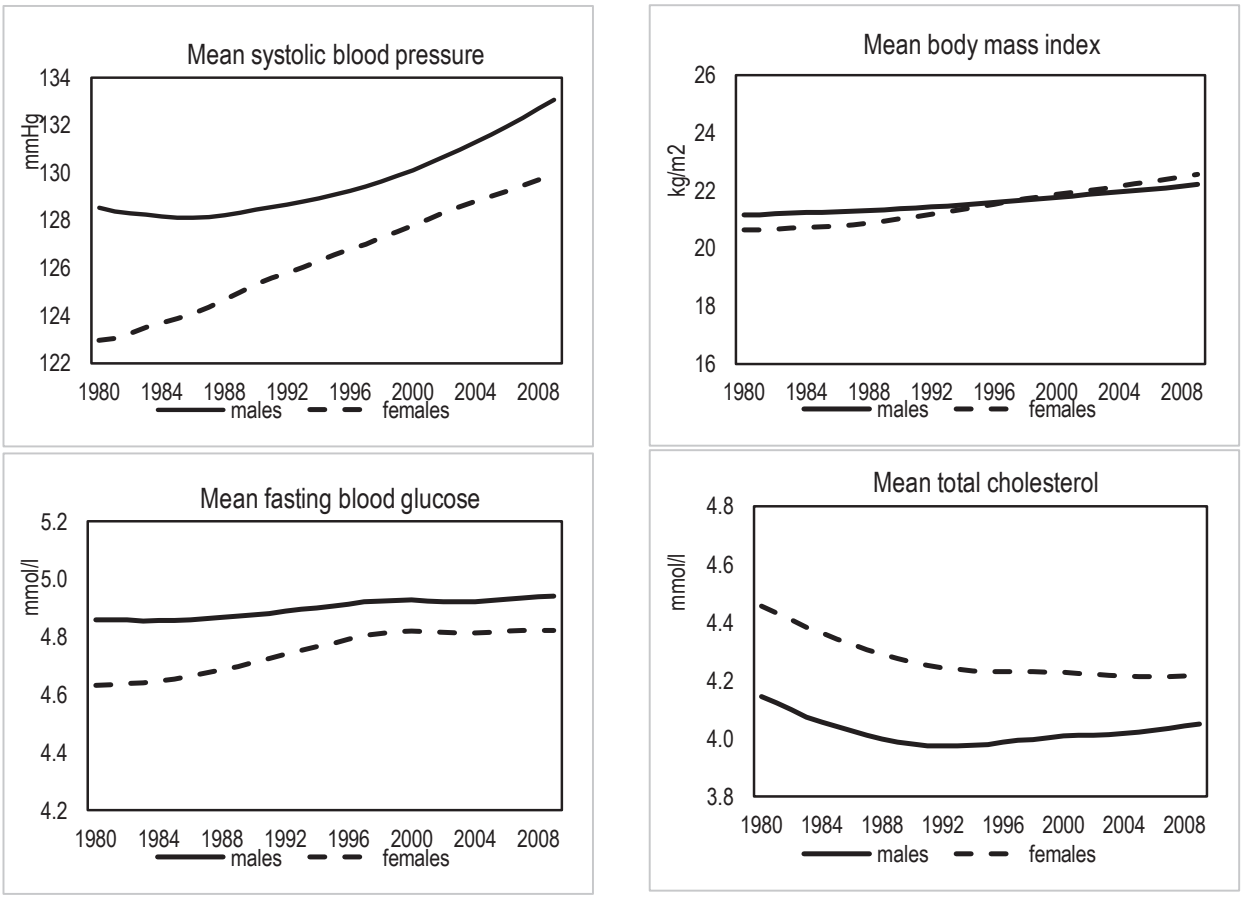
Source: DHS

There is an increasing proportion of women who are overweight / obese

At the same time, there is a persistent co-existence of undernutrition in 10% of women

Figure 106 shows the metabolic risk factor profile and their trends for non-communicable diseases including systolic blood pressure; body mass index; fasting blood sugar and cholesterol levels. From the 1980s to late 2008, there is a clear increasing trend in systolic pressure in the general population, slight and gentle increase in mean body mass index and fasting blood glucose while cholesterol levels have been slightly declining.

Figure 106: Metabolic risk factor profile

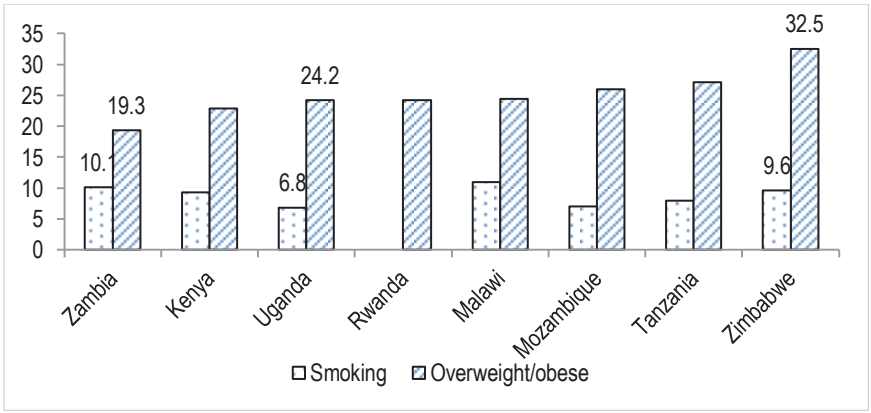


Source: WHO NCD Country Profile 2008

Comparative analysis

Figure 107 below show a comparison of non-communicable disease risk factors profile (smoking and BMI) among peer countries using data from WHO Global Health Observatory for 2010. With the exception of Zambia and Malawi, prevalence of currently smoking individuals are below 10%. Among the peer countries in the region examined here. Uganda has the least tobacco usage. In Uganda the proportion of individuals who are either overweight or obese is 24.2%; that of Zambia is the least at 19.3% and Zimbabwe has the highest at 32.5%.

Figure 107: Comparison of non-communicable disease risk factors profile (smoking and BMI) among peer countries



Source: WHO

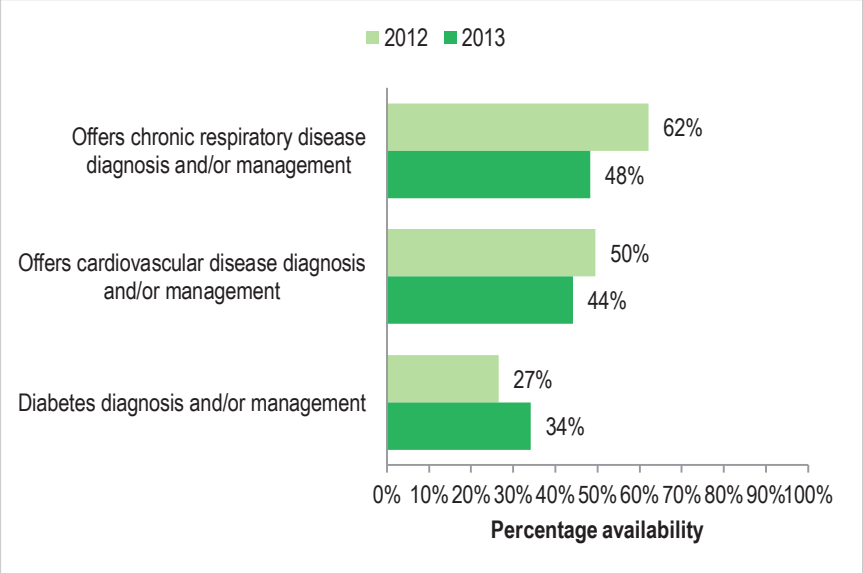
Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

NCD service availability

Figure 108 shows the percentage of facilities offering diabetes, cardiovascular disease, and chronic respiratory disease services in 2012 and 2013. In 2013 one out of three health facilities (34%) offered diabetes services, half of them offered cardiovascular disease services (48%), and four out of ten (44%) offered chronic respiratory disease services.

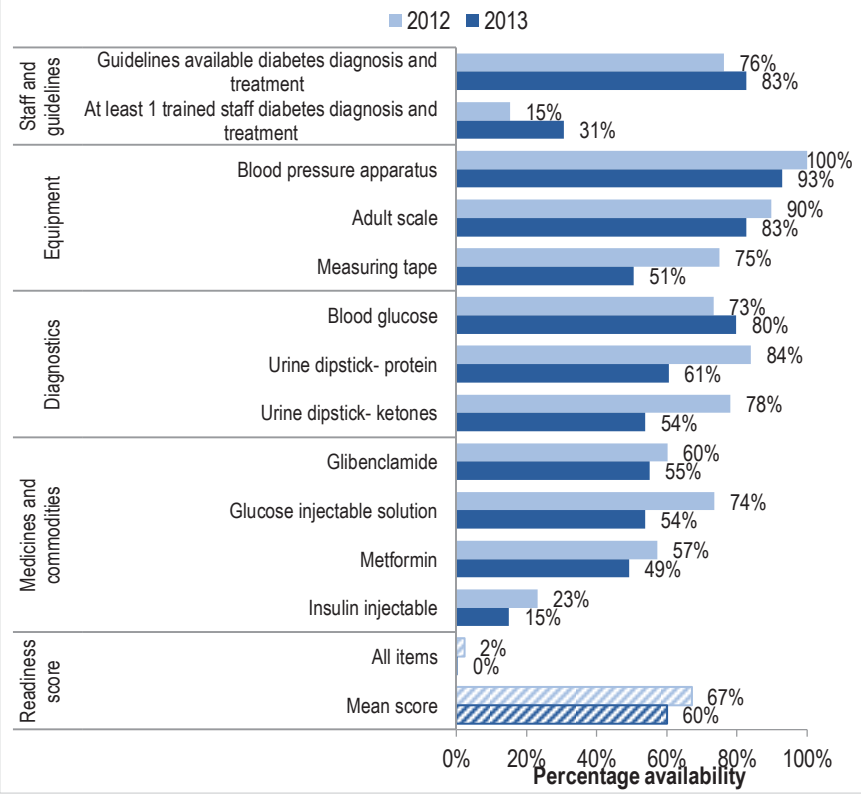
Figure 108: Service availability: Percentage of facilities offering diabetes, cardiovascular disease, and chronic respiratory disease diagnosis and management services (N_{2012} = 95, N_{2013} = 209)



Diabetes services

Figure 109 shows the availability of tracer items for diabetes services in health facilities offering these services. None of the health facilities in the nationally representative sample offered all twelve tracer items; on average, facilities had seven of the twelve items (60%). In 2013 only one out of three health facilities (31%) have at least one staff member trained in diabetes diagnosis and treatment the last two years. While this percentage is low, it is higher than in 2012 (15%). The availability of urine dipsticks for protein and ketones appears to have decreased between the two years.

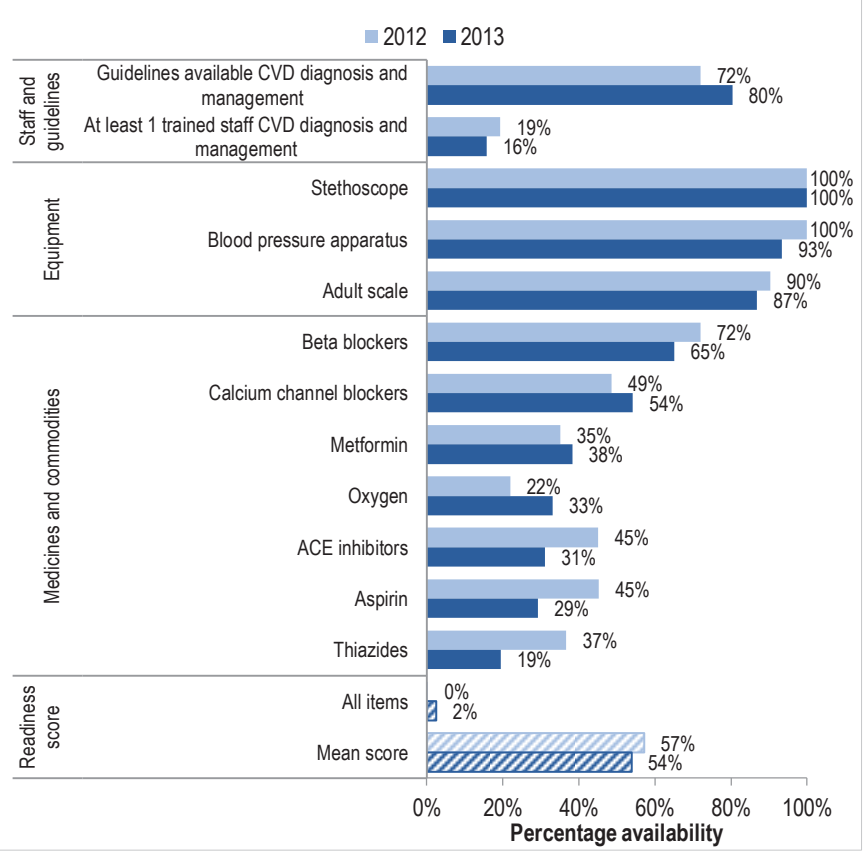
Figure 109: Percentage of facilities offering diabetes services that have tracer items. (N_{2012} = 36, N_{2013} = 87)



Cardiovascular disease services

Figure 110 shows the availability of selected tracer items for cardiovascular disease services. The figure show the availability of the tracer items among health facilities reported to offer such services. Close to none of the facilities offer all twelve tracer items (2%). On average health facilities have half of the twelve tracer items (54%). One out of ten facilities has all tracer items (9%) in 2013. Only 16% of the facilities have at least one staff member trained in cardiovascular disease diagnosis and management the last two years. Availability of guidelines is high; however, it is important to keep in mind that this indicator measures the presence of the Uganda Clinical Guidelines 2012 or 2010.

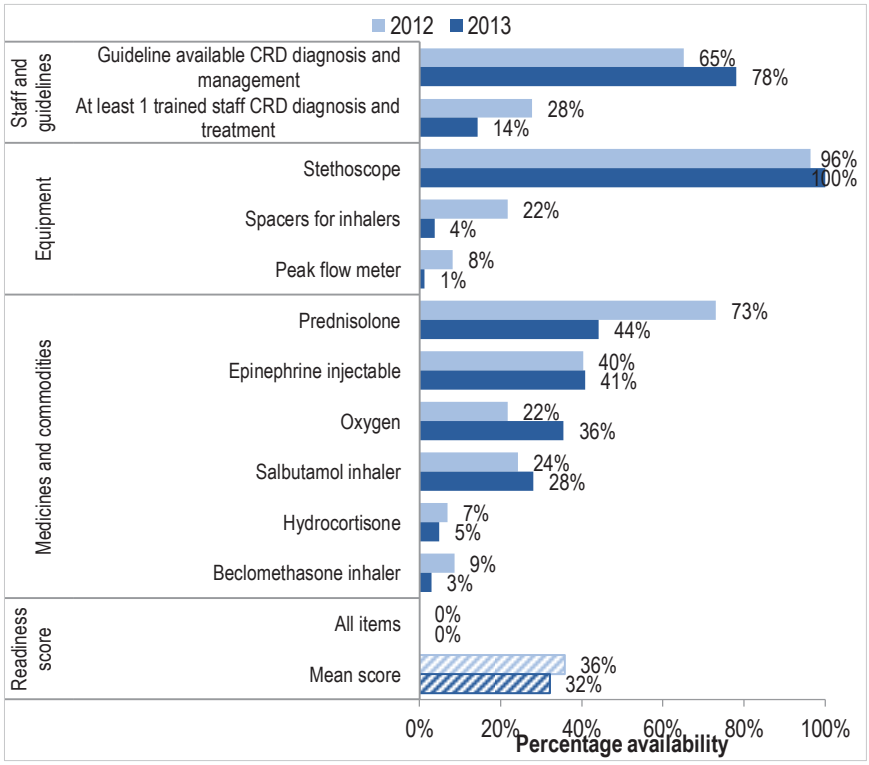
Figure 110: Percentage of facilities offering cardiovascular disease services that have tracer items. (N_{2012} = 54, N_{2013} = 99)



Chronic respiratory disease services

Figure 111 shows the availability of tracer items for chronic respiratory disease services at facilities that offer such services. In both years, none of the sampled health facilities had all 11 tracer items. Nine out of ten (87%) have the first line TB medications in stock. This is an increase since 2012, when seven out of ten (66%) had all the first line medications. On average the facilities in 2013 had one third (32%) of the tracer items.

Figure 111: Percentage of facilities offering chronic respiratory disease services that have tracer items. (N_{2012} = 63, N_{2013} = 106)



5.2 MENTAL DISORDERS

The HSSIP outlines priorities in mental health that aim to increase access to primary and referral services for mental health, to prevent and manage substance abuse problems, psychosocial disorders and common neurological disorders such as epilepsy. This is against a backdrop of limitations in funding to mental health services, limited research, staffing and unfavourable policies and national laws concerning mental health. A study published in 2010 examining the mental health care system in Uganda concluded that the current policy was outdated and that a new policy was needed to address current international norms, and individual patient rights among other things. The same study highlighted that only 1% of the annual health expenditure is spent on mental health and most of the services being concentrated in urban areas[4]. Though a draft policy has been existence since 2005, this has never been finalized and formally gazetted for implementation.

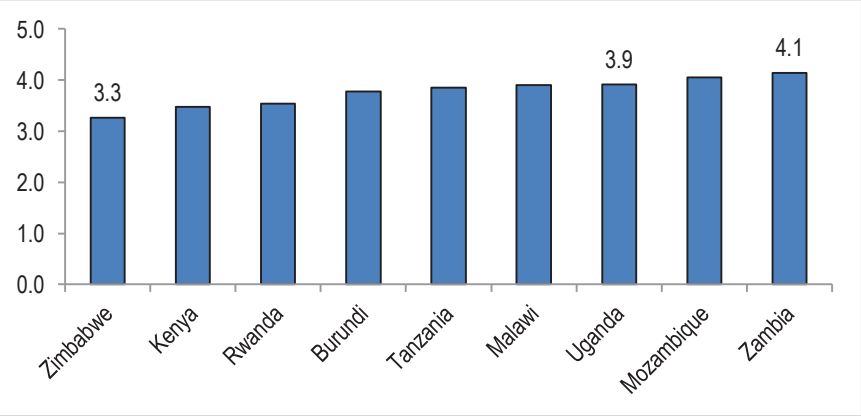
According to the global burden of disease, injuries, and risk factors study 2010, alcohol, a known factor for mental illness, was identified as the leading risk

[4] Kigozi et al.: An overview of Uganda's mental health care system: results from an assessment using the world health organization's assessment instrument for mental health systems (WHOAIMS). International Journal of Mental Health Systems 2010 4:1.

factor for premature death (years of life lost -YLLs) in Uganda. Between 1990 and 2010, epilepsy as a cause of years of life lost due to premature death rose from being ranked as number 26 to number 22 among leading cause of years of life lost due to premature death. The top 25 leading causes of Disability Adjusted Life Years (DALYs) in Uganda include two neuropsychiatric conditions namely major depressive disorders and epilepsy with a percentage DALYs increase of over 90% between 1990 and 2010[5].

While the contribution of mental illness to mortality burden may not be as high as that for the Years Lived with Disability (YLDs), increasing their contribution to mortality is not negligible. Figure 112 shows neuropsychiatric conditions' contributions to overall age adjusted mortality due to non-communicable diseases in Uganda. In Uganda, about 4% of mortality from NCDs is due to neuropsychiatric disorders. The difference between peer countries is small however.

Figure 112: Comparison of the contribution of neuropsychiatric disorders to the age adjusted mortality due to non-communicable diseases among peer countries.

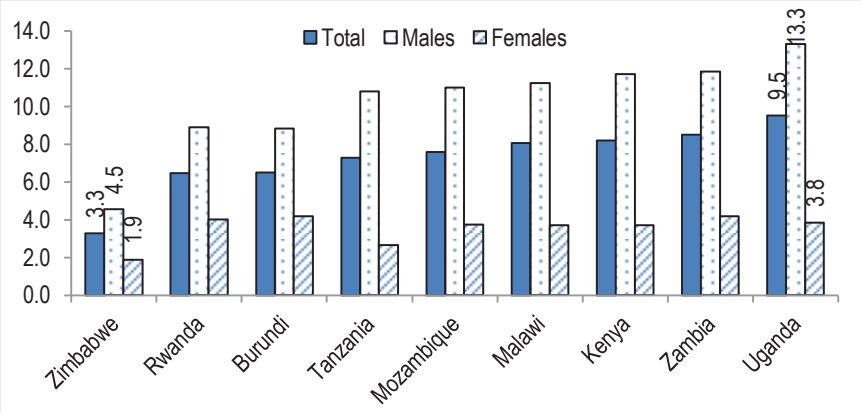


[5] Ssebunnya J, Kigozi F, Ndyanabangi S (2012) Developing a National Mental Health Policy: A Case Study from Uganda. PLoS Med 9(10): e1001319. doi:10.1371/journal.pmed.1001319.

5.3 INJURIES

Injuries are increasingly becoming a major cause of death in the developing world. Figure 113 shows a comparison of the percentage of age standardized mortality attributable to injuries among nine peer countries for the year 2008 as estimated by WHO. Among these countries, Uganda had the largest of mortality attributable to injuries followed by Zambia and Kenya while Zimbabwe and Rwanda had the lowest. As expected, mortality due to injuries is higher among women compared to men.

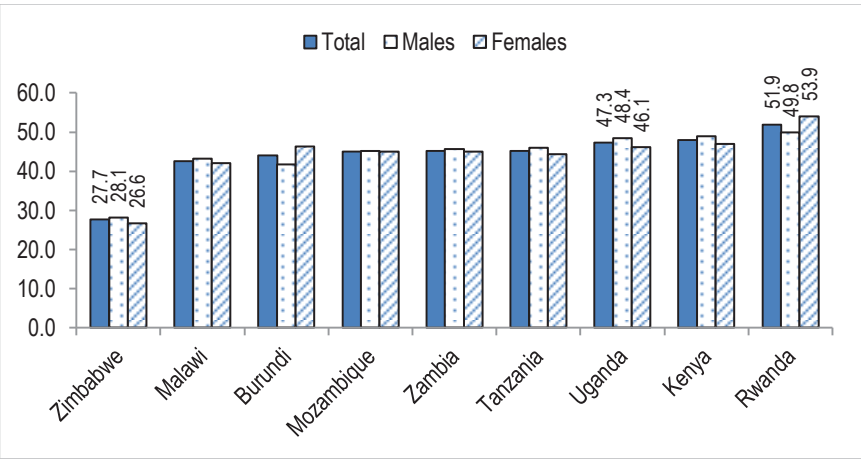
Figure 113: Percentage of overall age-standardized mortality rate attributed to injuries among peer countries.



Source: WHO

Figure 114 shows the proportion of age adjusted mortality attributable to non-communicable diseases among nine peer countries as estimated for 2008 by WHO. With exception of Zimbabwe and Rwanda which has the lowest and highest proportion attributable to non-communicable diseases respectively, the other countries have comparable share of mortality to non-communicable diseases with very little difference by gender.

Figure 114: Percentage of overall age-standardized mortality rate attributed to injuries among peer countries



Source: WHO

6 HEALTH SYSTEMS

Main findings

There has been mixed progress in strengthening the health system components as measured by the HSSIP 2010/11 – 2014/15 indicators.

- There are many policies and strategic plans; there is often insufficient coordination.
- Government allocation to health sector increased in absolute terms, but decreased as a percentage of total government expenditure: Allocation to health is at 7.9% in 2012/13, down from 9.6% in 2009/2010, showing a declining trend and well off the Abuja target of 15%. Government per capita expenditure on health also decreased from $11.1 in 2009/10 to $9 in 2012/13.
- Per capita out of pocket expenditure on health is still high at US$22 in 2009 and target of US $10 may not achievable by 2014/15.
- The proportion of approved positions filled by trained health workers has increased from 51% in 2009/10 to 61% in 2012/13; however, health worker density overall remains low at approximately 1.55 per 1000 population.
- The number of outpatients visits per person per year is steadily increasing from 0.9 in 2009/2010 to 1.1 in 2012/13, attaining the 2014/15 target value of 1.0 per person.
- Country-led M&E platform was established especially in the use of harmonized data collection tools and reporting system using the DHIS 2.
- Availability of the six tracer medicines (ACT, Co-trimoxazole, measles vaccine, Oral Rehydration Salt, Depo-Provera and Sulphadoxine pyramethamine) has been increasing steadily with 53% of health facilities without monthly stock outs in 2012/13. Financing for EMHS shows that there has been significant increase in per capita expenditure from $0.5 in 2010/11 to $0.9 in 2012/13.

6.1 POLICIES

Uganda has multiple policies and strategy documents that relate to health and health programmes which can be classified into three categories: overall development plans with a health component, general health plans, and specific health programme plans.

Overall development plans with a health component

The overall development plan which has a health component is the 10 year National Development Plan (NDP). The HSSIP 2010/11 – 2014/15 is well-aligned to the NDP which is also undergoing its mid-term review

General health plans

The general health plan is the HSSIP 2010/11 – 2014/15 under review.

Specific health plans

There are many health programmes which are guided by five or more year plans. Some are strongly linked to HSSIP, others are not. The reviews for the programmes are usually conducted independently from the annual health sector review, which focuses on HSSIP. The following plans for major health programmes exist:

- Maternal, newborn and child health
- National HIV/AIDS Policy and Strategic plan
- Quality improvement framework and strategic plan
- UNHRO Strategic Plan
- National malaria strategic plan,
- National strategy for NCD control, among others.

Within the context of the general and specific plans, policies have been developed and implemented during HSSIP 2010/11 – 2014/15 or shortly prior. Some of the major policy changes during 2007-2013 included:

- Treatment of complicated malaria
- Introduction of option B+ for HIV/AIDS
- Public Private Partnership for health Policy (PPPH)
- The Uganda National Health Research Organization (UNHRO) developed the National Health Research Policy and Strategic Plan including the research agenda. Mapping, capacity assessment and inventory of institutions that conduct health science research was done
- Uganda Clinical Guidelines
- Guidelines for operation of private wings in hospitals
- District Supervisory framework to support the inspection and monitoring function of the Professional Councils.

Policies that are still in development are

- the Medical Legal Policy
- Human Resource (HR) Training Policy
- National Health Insurance Bill
- Immunization Policy, Immunization Bill (Private Members of Parliament)
- Mental Health Policy and Mental Health Bill
- Tobacco Control Policy
- e-Health Policy and Strategy
- Indigenous and Complementary Medicines Bill
- National Health financing Strategy

- Health Tertiary Institutions Bill
- The Public Health Act is under review
- The Joint Health Professional Council Bill and Uganda Heart Institute Bill are in preliminary stage of development.

The monitoring of progress is not well aligned. Ideally the specific reviews are conducted prior to the main review and the results are fed into the overall annual health sector review.

Private sector

Private sector engagement has been limited to representation in HPAC and through the Health Professional councils. But with the approval and implementation of the PPPH Policy, the relationship is expected to be strengthened.

6.2 HEALTH FINANCING

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
General government expenditure on health as % of total government expenditure	9.6%	8.9%	8.3%	7.9%	15% (Abuja)	Declining trend and off target
% of households experiencing catastrophic payments	43%	-	-	-	13%	No data available to measure progress

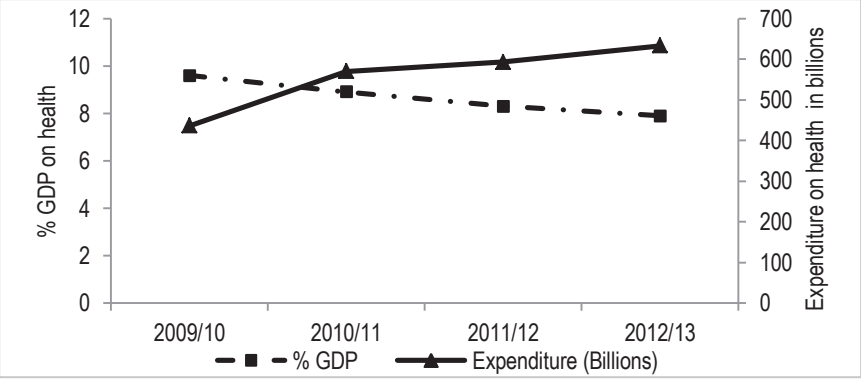
Data sources and quality

- **Health facilities reports (HMIS):** provide annual data on health facility service provision and utilization, human resources for health and financing.
- **National Health Accounts** provide data on different streams of financing and the proportions that go the various program areas.
- **Quality:** Routine data from health care facilities are of variable quality. National Health accounts are not carried out on an annual basis

The Financing goal for the health sector is to raise sufficient financial resources to fund the sector services: pooling, allocating resources and purchasing of services whilst ensuring equity and efficiency in allocation and utilization of resources. Health financing is both public and private. Public sources include: the Government of Uganda funding as well as development partners funding through project and budget support. Private sources include households, NGOs as well as private employers. Donor projects constitute a significant proportion of the total sector budget. These include, Belgian Technical Cooperation, DFID, Italian cooperation, Japanese Government, Sweden (SIDA), UNFPA, UNICEF, USAID, WHO and the Global Health Initiatives of GFATM and GAVI. During the HSSIP period, the financing strategic function addressed through technical and allocative efficiency, transparency and accountability, mobilisation of additional resources and improving management of development assistance.

Government allocation in absolute terms has increased over the years from 435.8 billion in 2009/10 to 569.56 in 2010/2011, to 593.02 in 2011/12, to 632.5 in 2012/2013. However, funding of the health sector as percentage of total government expenditure has actually decreased. The total government expenditure on health as a percentage of GDP has been decreasing over the years from 9.6% for FY 2009/10 to 8.9% in FY 2010/11; 8.3% in FY 2011/12 and 7.9% in FY 2012/13.

Figure 115: Trends in Government funding to the health sectors as percentage of total government expenditure

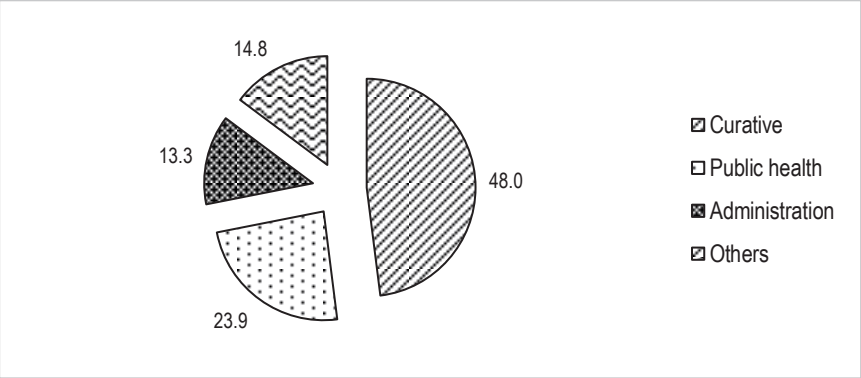


Source: MOH

Total health expenditure increased in absolute terms, but decreased as a percentage of GDP

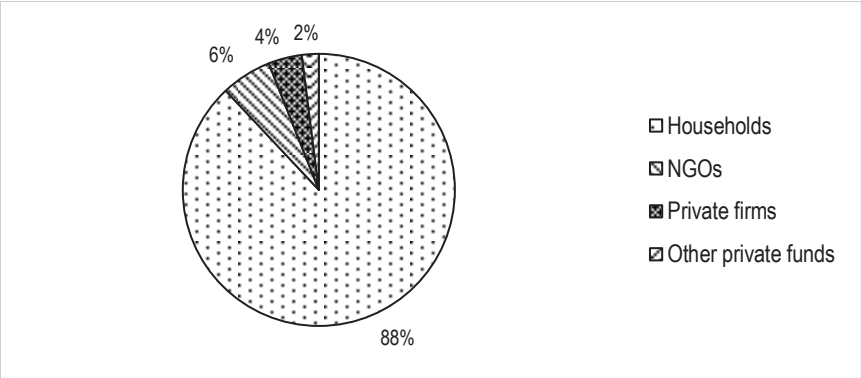
There have been no national health account analyses for 2010/11 to 2012/13 but data from previous years may give some insight in the funding streams and expenditures. The largest proportions of causes of ill-health are preventable and against this background, there has been a deliberate effort to promote prevention through public health intervention. While information in Figure 116 is from 2009/10, it is unlikely that things have changed drastically. Curative services took up 48% of the health budget while public health interventions took up only 24%.

Figure 116: Expenditure of services, NHA 2009/10



For the financial year 2009/2010, 49% of financing for general health came from private funds. Data from the same financial year show that the largest proportion of private funds are contributed by households. This has implications for the poor as expenditure on health is likely to be catastrophic. The largest percentage (88%) of the private funds come from households (out of pocket). Private firms are a very small player in funding health care provision with 2% of the funding coming from this category (Figure 117).

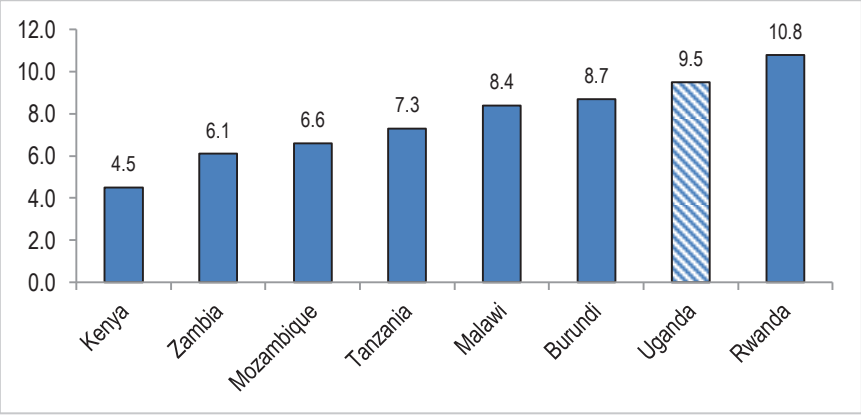
Figure 117: Sources of private funds, NHA 2009/10



Comparative analysis

Figure 118 gives a comparison of percentage of GDP spent on health among regional peer countries. Among the countries compared here, Kenya has one of the lowest percentages of GDP spent of health care while Rwanda has the highest. Uganda's expenditure on Health as percentage of GDP was 9.5% in financial year 2009/10 and was among the highest in the region. While this is comparatively high, it falls below HSSIP target and the Abuja declaration target of 15%.

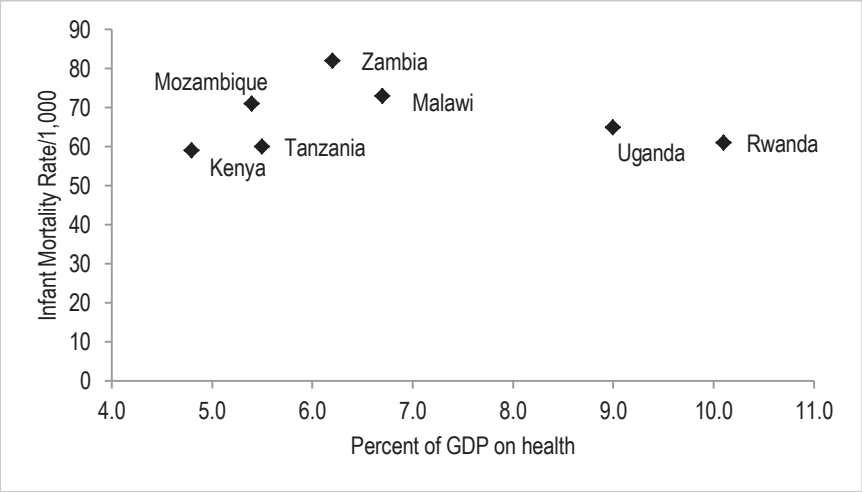
Figure 118: Comparison of total expenditure on health as percentage of GDP for 2009



Source: WHO

Figure 119 shows a scatter plot of percentage of GDP spent on health against Infant Mortality Rate (Latest estimates from DHS) among peer countries over a comparable period of time. While the correlation between IMR and percentage of GDP spent of health is not perfect, there is a general trend showing that, with exception of Kenya and Tanzania, countries with low percent GDP expenditure on health tend to have higher infant mortality rates.

Figure 119: Scatter plot of percentage of GDP spent on health against Infant Mortality Rate among peer countries over a comparable period of time.



6.3 HEALTH WORKFORCE

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Proportion of approved positions filled by trained health professionals	51%	53%	55%	60.5%	75%	Positive trend but below HSSIP target
Annual reduction in absenteeism rate	Absenteeism rate: 46%	1% increase (Abs. rate = 47%)	No data	No data	20% reduction	No data available

Data sources and quality

- **Human resources for health information system (HRHIS):** maintained by the HRH unit in the Ministry covers 75 districts.
- **Quality**: The HRHIS data base is improving every year, but does not yet cover the entire country.

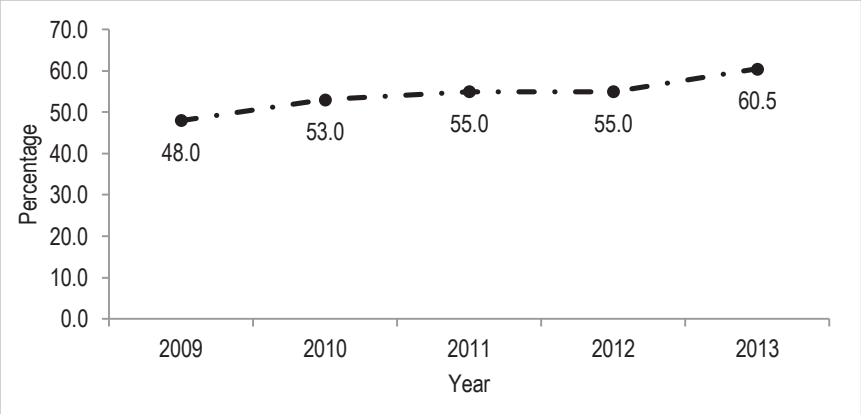
Health workers are the most important component of any health system: they design it, manage it, and deliver preventive and curative services. However there is shortage of health workers and the available health workers perform below expectation. The health workforce crisis is characterized by inadequate number and skill mix to effectively respond to the health needs, low retention and motivation, poor performance and high rate of absenteeism. The total estimated health workforce is about 45,598, serving a total projected population in Uganda of about 31.8 million. This means that there is one health worker for over 697 people, taking the entire health workforce together. According to WHO, a country with less than 2.28 health workers (doctors, nurses and midwives only) per 1000 population is regarded to be in severe

shortage of health workers to meet its health needs. For Uganda this ratio is about 1.55. Despite the achievements and progress made so far, the HRH systems are still generally weak and the achievements need to be scaled up, consolidated and sustained.

Data reported here mainly comes from the biannual report on Human Resources for Health October 2012 to March 2013[6]. By end of March 2013, it was estimated that 60.5% of all positions in the health sector has been filled. Estimates from previous years show an upward trend in the proportion of positions filled (Figure 120). For 2009, the estimated proportion of positions filled was 48%, and this increased to 53% in 2010 and 55% in 2011.

In 2012 there was a nation-wise effort to recruit staff into positions at Health Centre II I and Health Centre IV. Of the 10,210 positions advertised, about 71% were filled and this resulted into increased proportion of positions filled at both Health Centre III and Health Centre IV. Proportion of filled positions in Health Centre rose from 56% in 2012 to 70 and for Health Centre IV it increased from 60% in 2012 to 71% in 2013. There were variations in cadre recruited ranging from 86% for all nurses, 53% doctors and only 12% for anesthetic officers/assistants. There were also major variations by district ranging from 199% in Mbale to 0 8% in Buliisa.

Figure 120: Proportion of positions of health care workers filled in 2013

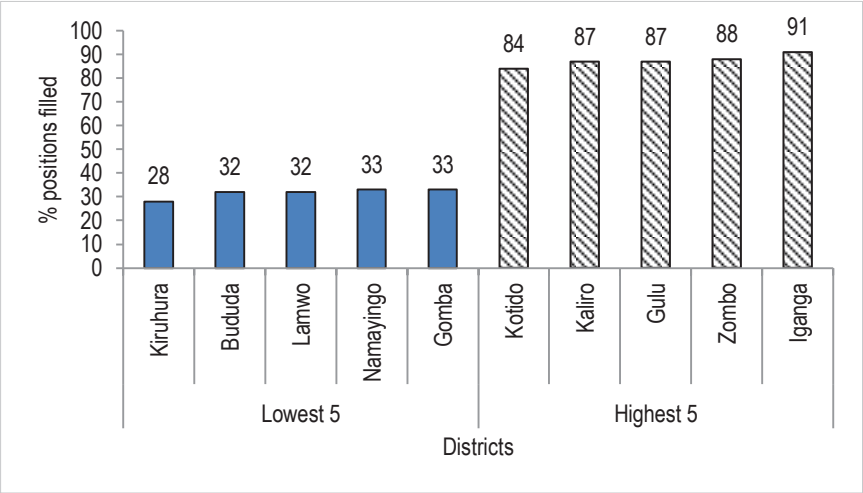


[6] Ministry of Health. Human Resources for Health: Bi-annual Report, Improving HRH evidence for decision making. March 2012-March 2013

Equity

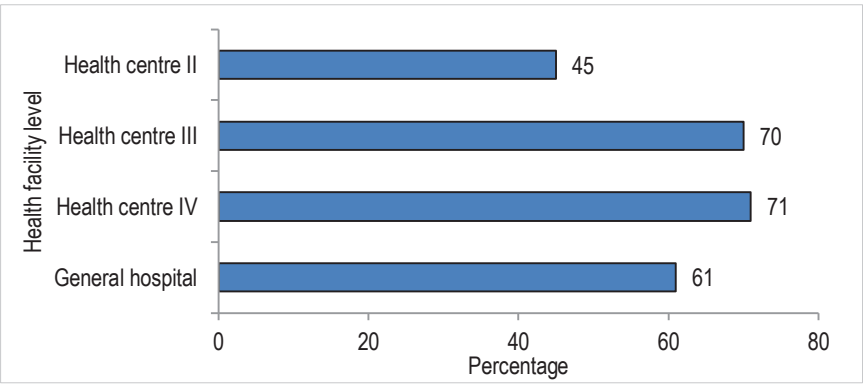
Despite the recent drive to recruit into Health Centre III and Health Centre IV, there still remain disparities by district. While Kiruhura district only has 28% of the positions filled, Iganga district on the other hand has over 90% of the positions filled.

Figure 121: Proportion of positions filled among the best and worst five districts



Lower level health care facilities have the biggest deficit in staffing levels. Among all Health Centre facilities, the required level of staffing is about 45%. Staffing levels against norms are highest in Health Centre IV and Health Centre level III with general hospitals having slightly lower levels of staffing (61%).

Figure 122: Proportion of positions filled by Health Care facility level



6.4 HEALTH INFRASTRUCTURE & SERVICE DELIVERY

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
% of functional Health Centre IVs (providing EMOC)	23%	24%	25%	36%	50%	Positive trend, on track to meet target
Client satisfaction	46%	72%	No data	No data	70%	
OPD per capita	0.9	1.0	1.3	1.1	1.0	On track
Proportion of villages/wards with trained VHTs increased	31%	72%	78%	55%	100%	No trainings carried out in 2012/13

Data sources and quality

- **Health facilities reports:** HMIS data are the main source of OPD visit data.
- **Health facility assessment (SARA**): 2012 and 2013 provide information on readiness to provide health services
- **Quality**: the quality of the OPD data is affected by issues related completeness and accuracy of reporting, and the trend has to be interpreted with great caution.

The health facilities have three levels of care: primary, secondary and tertiary. The primary level are composed of the Village Health Teams (VHTs), Health Centre IIs, Health Centre IIIs, Health Centre IVs and General Hospitals. The secondary levels are the Regional referral Hospital and other PNFP hospitals with large bed capacities. The Tertiary level is for the national Referral Hospital and other super-specialised Hospitals.

According to the Health Facility Inventory 2011[7], there were a total of 5,073 health care facilities. It was estimated that 72% of the population are within 5km walking distance to a health care facility. Health Centre IV is considered to be functional if it can carry out caesarean section surgical operations. In 2012, it was estimated that 24% of all Health Centre IV were functional.

Overall, about 3% of health care facilities are hospitals, 4% Health Centre IV and 70% Health Centre II. Most facilities are owned by government (54%) while 29% are owned by private individuals as private for profit facilities.

[7] Ministry of Health. Health Facility Inventory 2011. Health Infrastructure Division, Department of Clinical Services

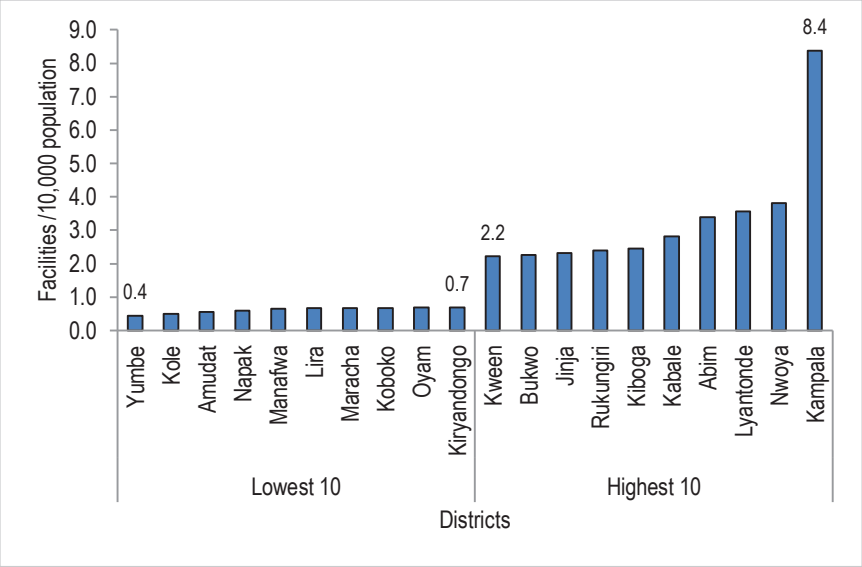
Table 12: Number and proportions of health care facilities by functional level and ownership

LEVEL OF FACILITY	GOVERNMENT	PNFP	PRIVATE	TOTAL
HOSPITAL	64	65	23	**152**
HEALTH CENTRE IV	170	15	8	**193**
HEALTH CENTRE III	937	272	70	**1279**
HEALTH CENTRE II	1696	522	1387	**3605**
TOTAL	**2867**	**874**	**1488**	**5229**

Equity

Figure 123 shows the number of health care facilities for every 10,000 population by the district (lowest and highest). The indicator is based on 2011 population and National Health facility inventory of the same year for facilities ranging from Health Centre II to general hospitals. The number gives an idea how many health care facilities are available for a population of 10,000. This number may be affected by overlapping catchment areas. Also availability of facilities may not translate into access and use due to other factors such as cost and perceived quality of service. Nonetheless, the indicator gives as an idea about the inequity of health care facility by population size. Yumbe district lowest and Kampala district has the highest number of facilities per 10,000 population.

Figure 123: Number of health care facilities per 10,000 populations



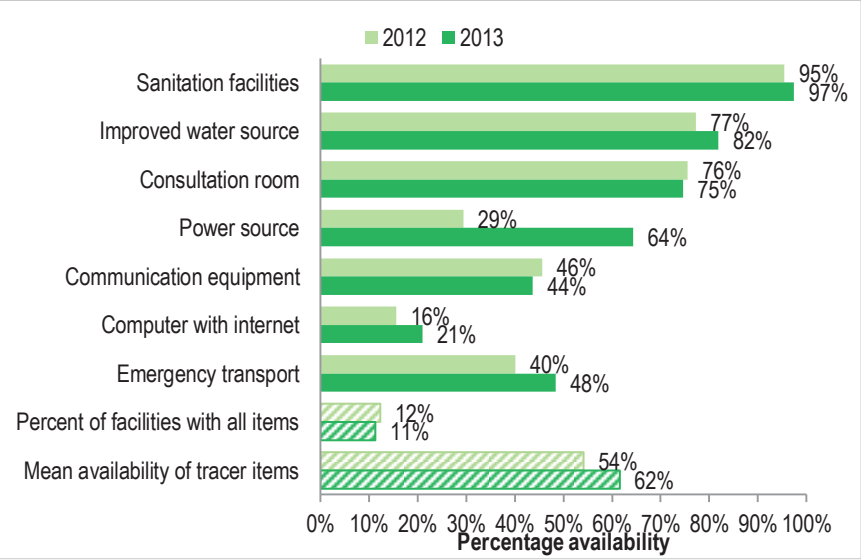
Service readiness

Uganda has conducted two national Service Availability and Readiness Assessments (SARA) to assess service delivery in health facilities, in 2012 (5 districts, 95 health facilities) and in 2013 (10 districts, 209 facilities). SARA looks at the percentage of facilities that offer a particular health intervention (service availability) as well as whether facilities offering the service have the minimum set of items (equipment, trained staff and guidelines, diagnostic capacity, and medicines) in order to provide an adequate level of service. Details of the SARA surveys and methodology can be found in Annex 7.2.

Basic amenities

Figure 124 shows the percentage of facilities that have selected basic amenities tracer items. One in ten facilities has access to all the tracer items for basic amenities. On average the facilities have four of the seven basic amenities. The percentage of facilities with a power source appears to have increased. This is likely due to solar power being taken into consideration in the 2013 assessment. Almost all health facilities have sanitation facilities (97%) and four out of five have access to an improved water source (82%). In 2013, one out of five health facilities have a computer with internet access (21%).

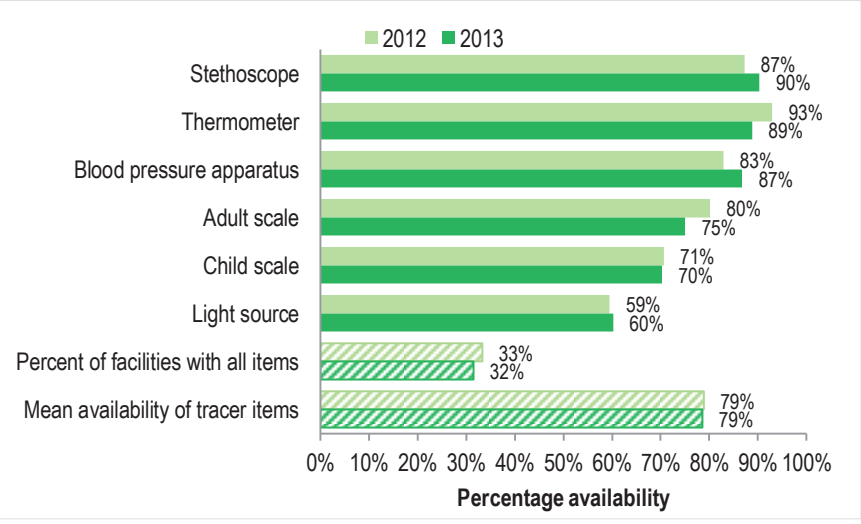
Figure 124: Percentage of facilities that have basic amenities tracer items. (N_{2012} = 95, N_{2013} = 209)



Basic equipment

Figure 125 shows the availability of tracer items for available basic equipment at health facilities. In 2013, one out of three facilities had all six tracer items (32%); on average, facilities had almost five of the six items. The availability of basic equipment items showed no changes between the two years. Stethoscopes, thermometers, and blood pressure apparatus were available in ten facilities. The least available item was a light source, available in six in ten facilities.

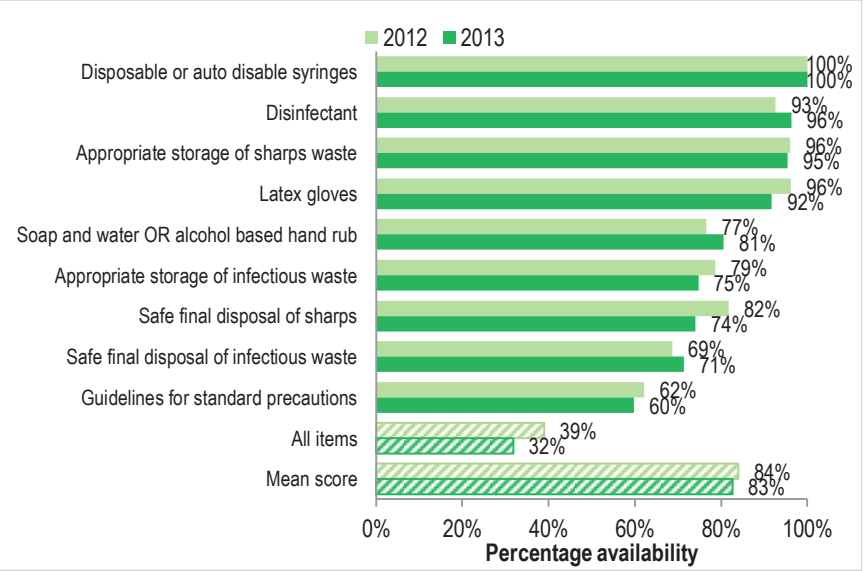
Figure 125: Percentage of facilities that have basic equipment tracer items. (N_{2012} = 95, N_{2013} = 209)



Standard precautions

Figure 126 shows the availability of standard precautions tracer items at health facilities. One out of three facilities had all nine tracer items (32%); on average, facilities had almost seven of the nine tracer items in 2013. Almost all facilities had disposable or auto disable syringes, disinfectant, and appropriate storage of sharps waste, and latex gloves were available in nine of ten facilities. The least available item was the guidelines for standard precautions.

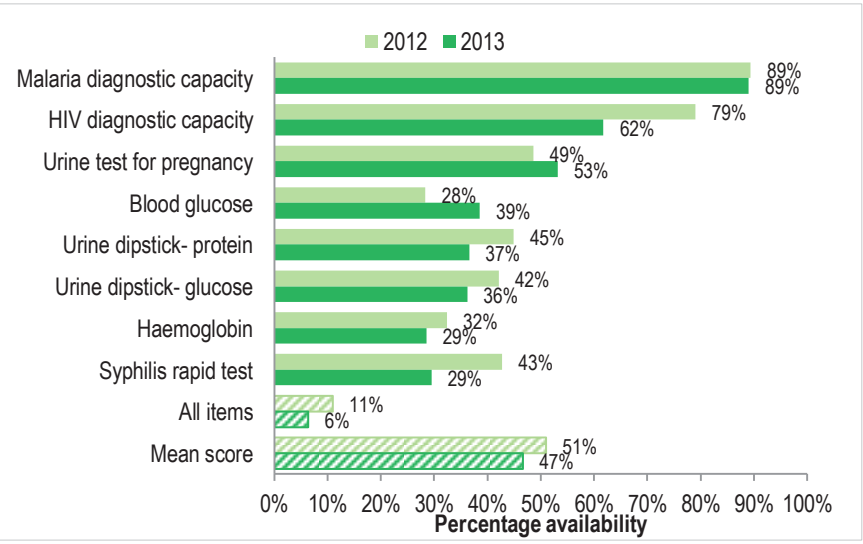
Figure 126: Percentage of facilities that have standard precautions tracer items. (N_{2012} = 95, N_{2013} = 209)



Diagnostics

Figure 127 shows the capacity to conduct Level 1 diagnostic tests on site at health facilities. Only six per cent of the facilities are able to conduct all eight tests. On average the health facilities are able to conduct four of the eight tests on site. Nine out of ten facilities have malaria diagnostic capacity (89%). This is unchanged from 2012. There appears to have been a decrease between the two assessments in the percentage of facilities able to conduct an HIV test on site on the day of the assessment.

Figure 127: Percentage of facilities that are able to conduct Level 1 diagnostic tests on site. (N_{2012} = 95, N_{2013} = 209)



Basic surgical services

Figure 128 shows the percentage of facilities offering basic surgical services in 2012 and 2013. Approximately half of health facilities offer basic surgery services (54%) in 2013.

Figure 128: Service availability: Percentage of facilities offering basic surgery services (N_{2012} = 95, N_{2013} = 209)

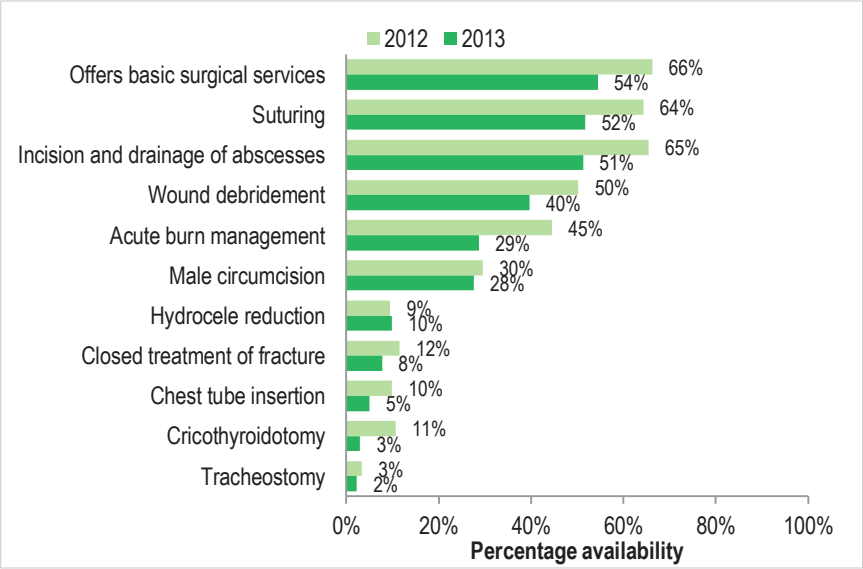
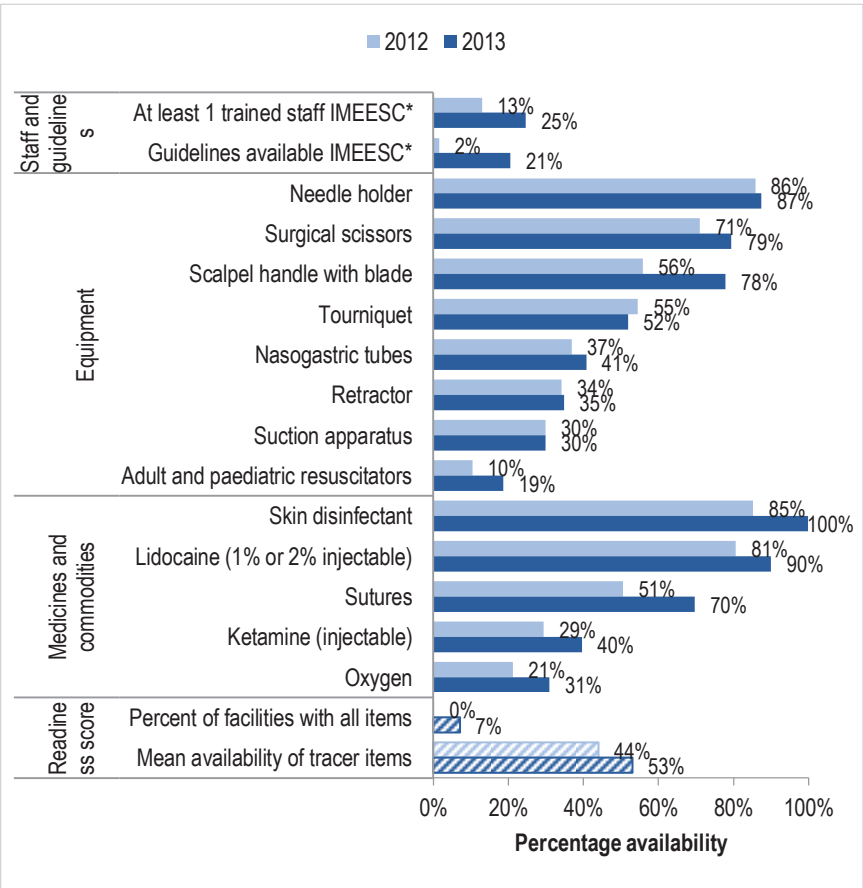


Figure 129 shows the availability of 15 tracer items at health facilities offering basic surgery services. Only seven per cent of the facilities have all tracer items. On average, the health facilities have eight of the specified tracer items.

Figure 129: Percentage of facilities offering basic surgery services that have tracer items. (N_{2012} = 69, N_{2013} = 123)



Blood transfusion services

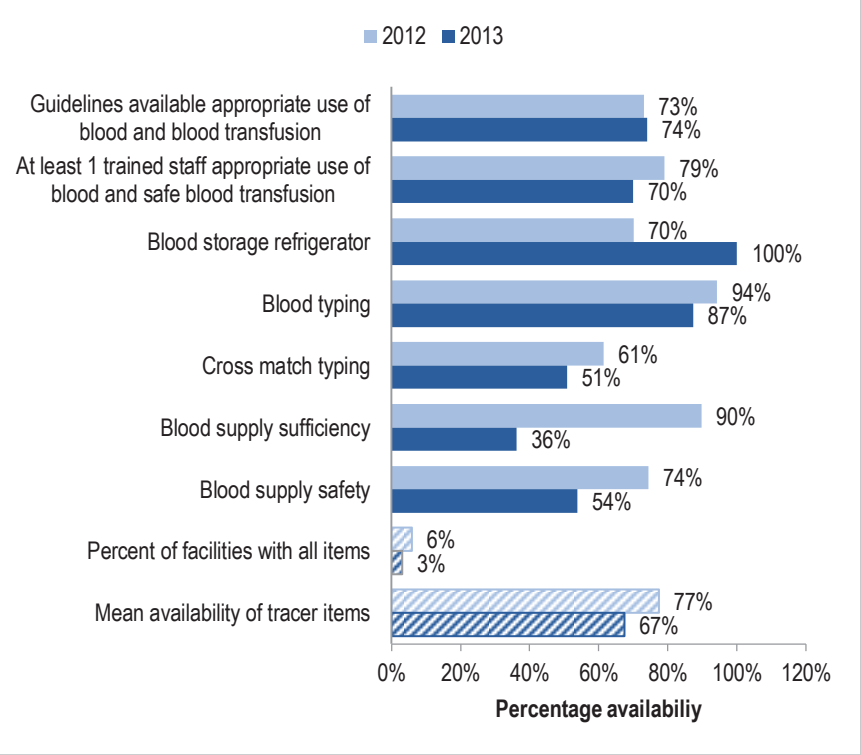
Table 13 shows the percentage of facilities offering blood transfusion services in 2013 by facility type. Seven per cent of all health facilities offered blood transfusion services in 2013, compared to ten per cent in 2012. All regional referral hospitals offered this service, whereas almost half of general hospitals and HC IV did so (45%).

Table 13: Service availability Percentage of facilities offering blood transfusion services by facility type (N_{2013} = 209)

Facility type	% of facilities
National/regional referral hospital	100%
General hospital and HC IV	45%
HC III	1%
HC II	2%
Total	7%

Figure 130 shows the availability of seven tracer items at health facilities offering blood transfusion services. Only three per cent of the facilities have all tracer items. On average, the health facilities have two thirds of the specified tracer items. All facilities offering blood transfusion reported having a refrigerator for blood storage. Seven out of ten facilities reported having at least one staff member trained in appropriate use of blood and safe blood transfusion the last two years. There has been a large decline in blood supply sufficiency from 90% in 2012 to 36% in 2013, indicating interruptions in blood supply. Blood supply safety (screening of blood for transfusion-transmissible diseases) has during the same period been decreased from 74% to 54%.

Figure 130: Percentage of facilities offering blood transfusion services that have tracer items. (N_{2012} = 14, N_{2013} = 37)



6.5 INFORMATION SYSTEM

There are no indicators for the information system in the core 26 HSSIP 2010/11 – 2014/15 indicators. However, the HMIS is a primary source of data for monitoring of the HSSIP indicators, and underpins the monitoring and evaluation of the health system in Uganda. As such, it is important to ensure that the data reported through the HMIS is of good quality. A systematic assessment of HMIS data quality following the WHO methodology[8] was conducted in 2010/11, and found that the data were of good quality at the national level. Some areas for further strengthening included improving reporting completeness in the newer districts, and improving subnational coverage estimates.

The HMIS transitioned to DHIS 2 (electronic web-based reporting) from the older SQL database in 2011/12, and also implemented a revision of the reporting forms to take into account disaggregations by age and by sex. Reporting completeness was seriously affected during the transition period as staff at district offices underwent training to use the new software. There were also some shortages of the new reporting forms. Timeliness and completeness of reporting for outpatient forms are shown in Table 14.

Table 14: Timeliness and completeness of HMIS outpatient reporting.

	2009/10	2010/11	2011/12	2012/13
Timeliness	84%	84%	77.8%	80.2%
Completeness	98%	94%	88.6%	93.9%

A summary of the analysis of data quality for 2012/13 data following the same methodology as before is provided in Annex 7.1.

6.6 MEDICINES

Indicators and Targets

Indicator	Baseline (2009/10)	2010/11	2011/12	2012/13	Target 2014/15	Status / comment
Core HSSIP 2010/11 – 2014/15 indicators						
Percentage of health units without stock outs of any of the six tracer medicines in the previous six months	10% (SURE)	34% (SURE)	48% (SURE) 70% (HMIS)	51% (SURE) 53% (HMIS) 41% observed availability non-expired on day of assessment (SARA 2013)	60% Revised target: 80%	Steady progress, but half of facilities still experience stock outs.

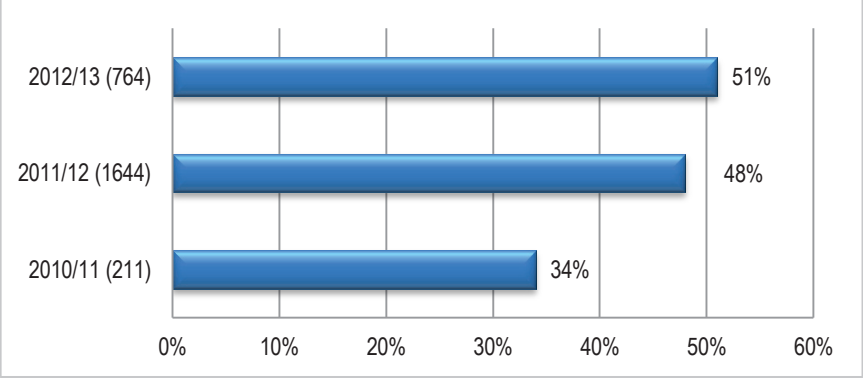
According to the World Health Organization (WHO), essential medicines are intended to be available within the context of functioning health systems at all times, in adequate amounts, in the appropriate dosage forms, with assured quality, and at a price the individual and the community can afford. Availability

[8] www.who.int/healthinfo/topics_standards_tools_data_quality_analysis/en/index.html

of supplies is known to increase the confidence in the health care system of health workers and the public. Improved availability results in increased patient attendance and therefore a better coverage of the population (Haak 1991, 62).

The Ministry of Health (MOH) uses the six tracer medicines to measure availability of priority healthcare medicines and supplies. There has been a steady increase in availability of EMHS at health facility level. According to surveys conducted looking at availability of all the six tracer medicines available on the day of survey at the health facility show an improvement from 34% in 2010/11 to 51% in 2012/13.

Figure 131: Percent availability of all six tracer medicines available on the day of survey



Source: SURE survey

Table 15 shows the availability of individual tracer medicines on the day of the survey. General improvement in average availability of the six tracer medicines apart from Cotrimoxazole tabs that was least available in 2010/11. This is attributed to the high demand for Cotrimoxazole tabs for its use in HIV/AIDS prophylaxis. Artemether/Lumefantrine least available in 2012/13. This was caused by stock out of ACTs in the country for the public sector in the period July-Sept 2012 that affected availability at health facility.

Table 15: Availability of the individual six tracer medicines available on the day of survey

TRACER MEDICINES	2010/11 (N = 72)	2011/12 (N = 796)	2012/13 (N = 386)
Artemether/Lumenfantrine	83%	83%	78%
Cotrimoxazole Tab	61%	82%	94%
Depo-Provera	92%	91%	88%
Measles Vaccine	81%	91%	87%
Oral Rehydration Salts	89%	90%	85%
Suphadoxine/Pyremetamine	96%	89%	88%
Overall average	**84%**	**88%**	**87%**

Source: SURE survey

The results of the SURE survey are largely consistent with the SARA. Table 16 shows the availability of the six tracer medicines (observed in stock and non-expired on the day of the assessment) by facility type from SARA. The relatively minor discrepancies with the SURE survey can be attributed the variability in the availability of medicines on the day of the assessment. As expected, a larger proportion of higher level facilities had all six tracer medicines in stock.

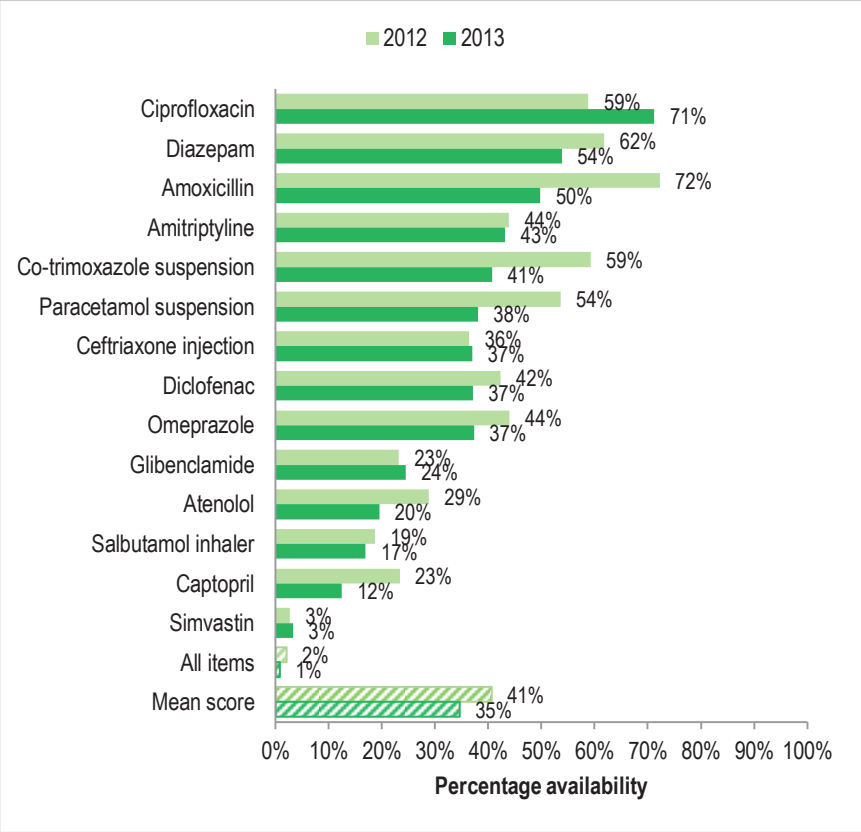
Table 16: Availability of six tracer medicines in public health facilities observed available and non-expired on the day of the assessment (June 2013), by facility type (N=209, SARA 2013)

	RR hospital	General hospital & HC IV	HC III	HC II	All public health facilities
ACT	92%	93%	80%	90%	**87%**
Co-trimoxazole tablets	100%	95%	84%	85%	**86%**
Depo Provera	100%	98%	98%	98%	**98%**
Measles vaccine	100%	95%	92%	55%	**75%**
ORS	92%	76%	69%	82%	**76%**
Suphadoxine/Pyremetamine	92%	72%	85%	87%	**84%**
All six tracer medicines	**77%**	**49%**	**51%**	**31%**	**41%**

Source: SARA

The SARA also looks at the availability of 14 tracer essential medicines, shown in Figure 132. There appears to be a decrease in the availability of amoxicillin, co-trimoxazole suspension, and paracetamol suspension compared to the previous year.

Figure 132: Percentage of facilities that have 14 essential tracer medicines. (N_{2012} = 95, N_{2013} = 209)



7 ANNEX

7.1 DATA QUALITY REPORT CARD

Health facility data are a critical input into assessing national progress and performance on an annual basis and they provide the basis for subnational/district performance assessment. This report assesses the quality of Uganda's health facility data collected through the health management information system (HMIS) for the period July 2012 to June 2013 (data downloaded from DHIS 2 on August 29, 2013). The assessment focuses on four dimensions of quality and within each dimension, several indicators are used to track progress and assess the quality of the facility data generated by the HMIS, for both national level and for districts.

At the **national level**, health facility reporting produces data of relatively good quality for most indicators of intervention coverage:

- *Completeness of reporting*: good; 89% of monthly facility reports were submitted in 2012/13, and there were no missing/zero values at the district level for four tracer indicators (Antenatal care first visit, diphteria-tetanus-pertussis/Pentavalent vaccine third dose, institutional deliveries, and total outpatient visits).

- *Internal consistency of the reported data:* fair; there were four extreme outlying values (more than 3 standard deviations from the mean) in district monthly data; facility data verification showed high overall consistency between facility records and reported data for institutional deliveries (VF = 1.0, 72% exact match), but approximately 20% over-reporting for DTP3 immunization (VF = 0.79, 51% exact match).

- *Consistency of population denominators:* fair; projections are based on 2002 census and are likely to be off; good consistency with UN projections and estimated target populations from surveys.

- *External comparison of coverage rates:* antenatal care coverage rates from HMIS show high consistency with survey results; poor correspondence for DTP3 immunization and institutional deliveries.

For the assessment of performance in the 112 **districts** the data quality assessment shows:

- *Completeness of reporting*: poor; 11 districts have facility reporting under 80% of which 4 were new districts from 2010.

- *Internal consistency of the reported data*: poor; four districts had extreme outlying values (more than 3 standard deviations from the mean), nine districts report more DTP third dose immunizations than first doses.

- *Consistency of population denominators*: fair; two regions identified with a population that is too high; denominators do not take into account subnational variations in fertility and infant mortality.

- *External comparison of coverage rates*: poor correspondence between HMIS and survey coverage rates for many regions; coverage of DTP3

immunization based on facility reporting were consistently higher than those from survey data for all regions.

The current reporting system in Uganda is just emerging from a transition period from the old HMIS database system to online web-based reporting with DHIS 2. Reporting forms were also revised at this time. The majority of districts switched to DHIS 2 in 2011/12, and reporting completeness was negatively impacted during this period. National level indicators generally show better data quality than regional and district level estimates. In particular, ANC1 shows good national consistency, but poor correspondence with survey coverage rates for Karamoja and West Nile regions. DTP appears to be consistently higher for HMIS than survey: this could be due to over-reporting of DTP3 as indicated by the data verification and fewer first doses than third doses being reported. It could also be due to underestimation of survey rates due to recall, and the gap in years between the year of the estimate from the survey as compared to HMIS. The reporting system can be further strengthened by (1) improving facility reporting completeness in districts with poor reporting; (2) in discussion with the Uganda Bureau of Statistics, review and improve the district population denominators to take into account migration between districts and regional variations in fertility and infant mortality.

Table 17: Summary table of indicators, Uganda data quality report card 2013

	Indicator	Definition	National DQ Score (%)	# of Districts with poor scores	% of Districts with poor scores
1. Completeness of reporting					
1a	Completeness of District Reporting	National district reporting completeness rate and districts with poor completeness rate			
1b	Completeness of Facility Reporting	National facility reporting completeness rate and districts with poor facility reporting completeness	88.7%	11	9.8%
1c	Completeness of indicator data (zero/missing values)	% of monthly reports that are NOT zero/missing values nationally AND districts with 20% or more zero/missing value reports	100.0%	0	0.0%
		ANC1	100.0%	0	0.0%
		Deliveries	100.0%	0	0.0%
		DTP3	100.0%	0	0.0%
		OPD	100.0%	0	0.0%
2. Internal consistency of reported data					
2a.1	Accuracy of event reporting: extreme outliers in the current year	% of national values that are extreme outliers (at least 3 standard deviations (SD) from the mean) AND districts with extreme outliers	0.1%	4	3.6%
		ANC1	0.0%	0	0.0%
		Deliveries	0.0%	0	0.0%
		DTP3	0.1%	1	0.9%
		OPD	0.2%	3	2.7%
2a.2	Accuracy of event reporting (moderate outliers)	Percentage of national values that are moderate outliers (between ±2-3 SD from the mean) AND districts with moderate outliers	3.1%	15	13%
		ANC1	3.3%	44	39.3%
		Deliveries	3.6%	48	42.9%
		DTP3	3.5%	47	42.0%
		OPD	2.2%	29	25.9%

2b	Consistency over time	Ratio of events for the current year to the mean number of events of preceding 3 years AND districts with ratios that are at least ±33% different from the national ratio	1.44	94	83.9%
		ANC1	1.12	47	42.0%
		Deliveries	1.30	44	39.3%
		DTP3	1.55	75	67.0%
		OPD	1.79	76	67.9%
2c	Internal consistency between indicators	Number and % of districts whose ratio of DTP1 to ANC1 is at least 33% different from the the national DTP1 to ANC1 ratio		17	15.2%
2d	Consistency between DTP1 and DTP3	Ratio of DTP3 to DTP1 immunization AND districts where DTP3 is more than 2% greater than DTP1	0.87	9	8.0%
2e	Verification of reporting consistency through facility survey	% of agreement between data in sampled facility records and national records for the same facilities (average of 4 core indicators - ANC1, Deliveries, DTP3, OPD)			
3. External consistency of population data					
3a	Consistency of population projection (UN)	Ratio of population projection of live births from the Bureau of Statistics to a UN live births projection	1.08		
3b.1	Consistency of denominator (estimated number of pregnant women)	Ratio of the official to an alternate denominator for pregnant women AND regions where there is at least 33% difference between the two denominators	1.06	2	20.0%
3b.2	Consistency of denominator (estimated number of children under 1 year)	Ratio of the official to an alternate denominator for number of children under 1 year AND regions where there is at least 33% difference between the two denominators	0.97	0	0.0%
4. External Comparison					
4a	External Comparison: of ANC1	Ratio of facility ANC1 coverage rates to survey ANC1 coverage rate AND districts where there is at least 33% difference between the two rates	0.95	2	20.0%
4b	External Comparison: of Deliveries	Ratio of delivery coverage rates from facility reports to delivery coverage rates from survey reports AND districts where there is at least 33% difference between the two rates	0.80	3	30.0%
4c	External Comparison: of DTP3	Ratio of DTP3 coverage rates from facility reports to DTP3 coverage rates from survey reports AND districts where there is at least 33% difference between the two rates	1.17	4	40.0%

7.2 DESCRIPTION OF SARA SURVEY

The Service Availability and Readiness Assessment (SARA) provides key information on the state of the health system in terms of service availability (proportion of health facilities providing specific health services), as well as the readiness of the facilities to provide an adequate level of service (e.g. availability of trained staff, diagnostics, equipment and medicines), both for general health services as well as for key health interventions such as antenatal care, child immunization, HIV/AIDS, tuberculosis, and malaria diagnosis/treatment services. Monitoring facility-level performance provides information on whether health services are present and are being provided at the expected level, and gives an indication of how investments in the formal health sector are resulting in changes at the level of service delivery. This affects utilization of services and ultimately impacts population-level outcome measures.

The survey is designed to generate a set of core indicators on key inputs and outputs of the health care system, which can be used to measure progress in health system strengthening over time. Tracer indicators aim to provide objective information about whether or not a facility meets the required conditions to support provision of basic or specific services with a consistent level of quality and quantity.

2012 survey

A rapid service readiness assessment was conducted to fill critical data gaps in service delivery and data quality for the annual health sector performance review 2011/12. The assessment included a review of health facility records for the purpose of data verification, to assess the reliability of facility reporting to the HMIS. A sample of 102 health facilities in five districts across five geographical zones in the country (based on UDHS regions: central 1 and 2, eastern and eastern central, west and south west, north and west Nile, and Kampala), plus 3 regional referral hospitals was selected for inclusion in the survey, to obtain a snapshot of service readiness and data quality across the country. One district was sampled randomly from each of the five zones, and 20 to 25 facilities were selected from each district9.

The questionnaire was adapted to country specific requirements and national treatment guidelines. Twenty data collectors (nurses, clinical officers, students, interns) and five field supervisors were trained in early August 2012 on the data collection methodology, questionnaire content, and electronic data collection tools. Field work took place over a period of three weeks in August 2012. Analysis is based on standard tracer indicators for service readiness for key health services including maternal and child health services and diagnosis and treatment of infectious and non-communicable diseases. All results were weighted to reflect the distribution of health facilities in the country. Only national level results are shown for the current assessment – a larger sample would be required to show breakdowns by region/district, facility type and managing authority.

Table 18 shows the key characteristics of the facilities covered in the assessment. There were 95 facilities included in the final data set for the analysis: five facilities in Bukedea were non-functional (all facilities in Bukedea were covered and therefore there were no replacement facilities), and data for two facilities in Oyam were missing. Two facilities in Mbarara and three

[9] For districts that had 25 or fewer facilities, all facilities were included in the sample. For larger districts, facilities were stratified by facility type (hospitals, HC IV, HC II & III) and a sample of 20 facilities was drawn, with an oversampling of hospitals and HC IVs.

facilities in Kampala were not available to be assessed and were replaced by the closest facility of the same type and managing authority.

Table 18: Key characteristics of the 2012 SARA sample

	Total number of facilities	Number of facilities in sample
Facility type		
Hospital	143	11
HC IV	190	12
HC III	1177	23
HC II	3470	49
Managing authority		
Public	2679	60
Private (PFP and PNFP)	2301	35
Zone (District)		
Central 1 & Central 2 (Mpigi)	23 districts in zone 29 facilities in district	20 facilities selected
Eastern & Eastern Central (Bukedea)	32 districts in zone 16 facilities in district	12 facilities selected
West & South West (Mbarara)	26 districts in zone 60 facilities in district	19 facilities selected
North & West Nile (Oyam)	23 districts in zone 25 facilities in district	24 facilities selected
Kampala	1 district in zone 1370 facilities in district	20 facilities selected
Total	**4980**	**95**

2013 survey

A follow-up SARA was conducted in June 2013 to measure progress and to serve as a primary data source for the MTR analytical review. A sample of 233 health facilities (including both public and private sector facilities) in ten districts, plus all regional referral hospitals were selected for inclusion in the survey, to obtain a snapshot of service readiness and data quality across the country. One district was selected randomly from each of the 10 DHS zones.

The assessment included a review of health facility records for the purpose of data verification, to assess the reliability of facility reporting to the HMIS. Five indicators were selected for data verification for the months of January, February, and March 2013: health facility deliveries, DTP third dose, maternal ARV prophylaxis for PMTCT, total TB cases, and malaria diagnostic testing.

Twenty-two data collectors (nurses, clinical officers, data managers, interns/students) and seven field supervisors (MoH and WCO staff) were trained in May 2013 on the data collection methodology, questionnaire content, and electronic data collection tools. Field work took place over a period of three weeks in June 2013. All results were weighted to reflect the distribution of health facilities in the country. The 2013 sample is sufficiently large to allow the disaggregation of results by facility type and managing authority (public/private).

Table 19 shows the key characteristics of the facilities covered in the assessment. There were 209 facilities included in the final data set for the

analysis: 11 facilities were not functional or closed, 12 facilities could not be found, and 1 facility refused consent to participate.

Table 19: Key characteristics of the 2013 SARA sample

	Total number of facilities	Number of facilities in sample
Facility type		
Regional referral hospital	13	13
General hospital/HC IV	282	34
HC III	1279	68
HC II	3603	94
Managing authority		
Public	2863	138
Private (PFP and PNFP)	2362	71
Zone (District)		
Central 1 (Lyantonde)	12 districts in zone 28 facilities in district	12 facilities selected
Central 2 (Luwero)	11 districts in zone 65 facilities in district	31 facilities selected
Eastern (Soroti)	21 districts in zone 31 facilities in district	15 facilities selected
Eastern Central (Bugiri)	11 districts in zone 50 facilities in district	21 facilities selected
West (Kabarole)	12 districts in zone 60 facilities in district	29 facilities selected
South West (Kisoro)	14 districts in zone 35 facilities in district	18 facilities selected
North (Lamwo)	15 districts in zone 23 facilities in district	11 facilities selected
West Nile (Zombo)	8 districts in zone 19 facilities in district	11 facilities selected
Karamoja (Napak)	7 districts in zone 12 facilities in district	12 facilities selected
Kampala	1 district in zone 1391 facilities in district	38 facilities selected
Total	**5225**	**209**

7.3 HSSIP 2009/10 –2014/15 MONITORING & EVALUATION INDICATORS

		Baseline	Achievement			Target 2014/15	Source	Comments
		2009/10	2010/11	2011/12	2012/13			
Objective 1: Scale up critical interventions								
Strategic Intervention 1.1.1: Promote individual and community responsibility for better health.								
1. Standards and guidelines (including criteria for gender sensitivity) for the production and delivery of IEC messages developed and disseminated among institutions by 2011/2012.		Data not available	Data not available	Data not available	Data not available			
2. Proportion of districts[10] with trained VHTs		31%	40%	40%	-	100%	Supervision reports	
3. Proportion of health facilities with IEC materials maintained at 100%.		100%	Data not available	Data not available	Data not available	100%		
Strategic Intervention 1.1.2: Contribute to the attainment of a significant reduction of morbidity and mortality due to environmental health and unhygienic practices and other environmental health related conditions.								
1. The proportion of households in Uganda with pit latrines		69.7% Urban: 77% Rural: 69.2%	71% Urban: 81% Rural: 69.2%	71% Urban: 81% Rural: 69.8%	70%	72% Urban: 100% Rural: 77%	EHD data tool, District annual reports	
2. Percentage of households with access to safe water		65% Urban: 67% Rural: 65%	Urban: 66% Rural: 65%	Urban: 69% Rural: 64%	64%	77% Urban: 100% Rural: 77%	Water Sector Annual performance report	No progress
3. The proportion of districts implementing water quality surveillance and promotion of safe water chain/consumption		30%	-	-	-	50%		
Water quality: % of water samples taken at point of water collection	Protected source (E. coli) % compliance	57%	93%	93%	93%	95%	Water resources Mgt. report	
	Treated drinking water supply (E. coli) % compliance	100%	100%	100%	Data not available	100%		
	Treated drinking water supply (Colour) % compliance	92%	72%	88%	Data not available	100%		
4. The proportion of households with hand washing facilities with soap		Households: 22%	Households: 24%	Households: 28%	Households: 28%	Households: 50%	District reports	

[10] Note that the HSSIP core indicator is for the proportion of **villages/wards** with trained VHTs

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
	Schools: 33%	Schools: 33%	Schools: 37%				
Strategic Intervention 1.1.3: Reduce morbidity and mortality due to diarrhoeal diseases.							
1. Incidence of annual cases of cholera	3/100,000	2/100,000	5/100,000	3/100,000	1.5/100,000	HMIS	
2. Incidence of annual cases of dysentery	254/100,000	164/100,000	154/100,000	119/100,000	1.5/100,000	HMIS	
3. Cholera specific case fatality rate	2.1%	1.4% (9/631)	1.1% (19/1696)	1.5% (15/1007)	<1.0%	HMIS Weekly data	
4. The dysentery specific case fatality rate	0.08%	0.11% (55/52,129)	0.03% (17/50,719)	0.08 (32/40,760)	0.01%	HMIS Weekly data	
5. Acute watery diarrhoea specific case fatality rate	0.9%	Data not available	3.8% (755/19,886)	0.9% (605/63,915)	0.4%	HMIS Monthly Inpatient data	
Strategic Intervention 1.1.4: Improve the health status of the school children, their families and teachers and to inculcate appropriate health seeking behaviour among this population.							
1. The % of schools in Uganda that provide basic health and nutrition services increased to 25 % by 2015	-	-	-	-	25%		Need for baseline survey
2. The % of primary and secondary schools with safe water source within 0.5 km radius of the school	Primary: 61% Secondary: 75%	-	-	-	80%		Need for baseline survey
3. The % of schools with pupil per latrine stance ratio of 40:1 or better	57%				70%		
Pupil per latrine ratio	54:1	66:1	69:1	50:1	40:1	Education, Water and Health Annual Sectors performance reports	
Strategic Intervention 1.1.5: Prevent, detect early and promptly respond to health emergencies and other diseases of public health importance.							
1. The proportion of suspected disease outbreaks responded to within 48 hours of notification	52%	52%	57%	61% (Jul-Dec 2012)	80%	Outbreak reports, Logbook for Alerts	
2. The proportion of districts with functional epidemic preparedness and response committees	76%	76%	81%	82% (Jul-Dec 2012)	100%	Supervision reports	
3. The proportion of districts with epidemic preparedness plans		62%	69%	73%	100%	Supervision reports	
4. The timeliness and completeness of weekly and monthly surveillance reports		Timely: 82% Complete: 87%	Timely: 85% Complete: 88%	Timely: 85% Complete: 88%	>80%	Weekly Epidemiological bulletin	
Strategic Intervention 1.1.6: Ensure equitable access by people in PRDP districts [in conflict and post-conflict situations] to Health Services							

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
1. Increased access to functional health facilities: this should enable a larger percentage of the population to be within 5km or less of the facility.	Data not available	Data not available	Data not available	Data not available			
Strategic Intervention 1.1.7: Scale up delivery of nutrition services							
1. The proportion of underweight in under five year children	16% (2006)	-	14% (2011)	-	10%	UDHS 2006, 2011	On track
2. Vitamin A deficiency	Children: 20% Women: 19%	-	Children: 38% Women: 36%	-	Children: 19% Women: 9%	UDHS 2006, 2011	Large increase due to decline in outreaches (Child Days Plus), limited funding for implementation, advocacy, and awareness
3. The proportion of stunted children below 5 years	38% (2006)	-	33% (2011)	-	28%	UDHS 2006, 2011	On track
4. Vitamin A supplementation coverage	60%	59%	68%	64%	80%	UDHS 2006, 2011	
5. Deworming coverage for children 1-14 years	60%	-	50%	-	80%	UDHS 2006, 2011	
6. Iodine deficiency					0%		No studies to establish prevalence of iodine deficiency in past 15 years; however, use of iodised salt in almost all households is thought to have eliminated iodine deficiency
7. The proportion of the households consuming iodised salt	95%	-	99%	-	100%	UDHS 2006, 2011	
8. The prevalence of anaemia	Children: 73% Women: 49% Men: 28% (Children: 73% Women : 42% UDHS 2006)	-	Children: 49% Women: 23% Men: 15% (Children: 50% Women : 37% UDHS 2011)	-	Children: 60% Women: 30% Men: 15% **New targets:** Children: 30% Women: 15% Men: 10%	UDHS 2006, 2011	Original targets reached; MOH has reduced targets further.
9. The proportion of underweight women of reproductive age	12%	-	12%	-	6%	UDHS 2006, 2011	
10. Exclusive breastfeeding at 6 months	60%	-	63%	-	80%	UDHS 2006, 2011	
11. Timely complementary feeding	73%	-	65% (2011)	-	80%	UDHS	
12. Accessibility to appropriate and gender sensitive nutrition information and knowledge	-	-	-	-	100%		No data available
13. Nutrition services to health units and the community scaled up	-	-	-	-	100%		No study conducted (in process of discussion with Resource Centre)

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
Strategic Intervention 1.2.1: Prevent STI/HIV/TB transmission and mitigate the medical and personal effects of the epidemic.							
1. HIV prevalence among pregnant women (19-24 yrs) attending antenatal clinics	7.0%	6.6%	7.1%	Results not yet available	4%	ANC Surveillance data	The rise is related to ARV availability and other benefits of PMTCT
2. The proportion of people who know their HIV status	38%	55% Women 66% Men 45%	55% Women 66% Men 45%	55% Women 66% Men 45%	70%	The UAIS 2011	This survey is carried out every 5 years (next survey planned for 2016).
3. The proportion of people who are on ARVs	Adults: 214,087 (53%)	260,856 (60.2%)	329,060 (67%)	524,603 (76.5%)	Adults: 75%	ART reports, ART Master list	Exceeded target
	Children <15y: 18,079 (10%)	26,699 (27%)	30,641 (30%)	41,520 (41%)	Children<15y: 119,668 (50%)	ART reports	Following adoption of test and treat
4. The proportion of children exposed to HIV from their mothers access HIV testing within 12 months	34,606 29%	30%	32.3%	45.9%	75%	EID reports	Mothers not returning at 6 weeks; LTFU
5. The proportion of pregnant women accessing HCT in ANC	83% at 90% reporting	82% at 70% reporting	100% at 75% reporting	100%	100%	ACP	Target achieved in 2011/12
6. HCT services available in all health facilities including HC IIs, and at community level (Proportion of health facilities with HCT services; Proportion of community structures with HCT services)	HFs: 37% = 1,840 out of 4,980 Hospitals: 98% HC IV: 97% HC III: 46% HC II: 9% (SPA 2007)	HFs: 38% = 1,904 out of 4,980	HFs: 38% = 1,905 out of 5,033 (84% SARA 2012)	Hospitals: 100% HC IV: 100% HC III: 80% HC II: 30% 1,849 out of 5,033 (77%[11] SARA 2013)	HFs: 100% Community: 100%	ACP, SARA	Steady increase. No data on community structures with HCT services.
7. PMTCT services available in all health facilities up to HC III's and 20% of HC IIs (Proportion of health facilities with PMTCT services; Proportion of HC IIs with PMTCT services).	Total: 25.6% = 1,150 out of 4,480 (ACP) Total: 28% HC III+: 51% HC II: 12% (SPA 2007)	Total: 1257 (28.3%) Hospital: 110 (84%) HC IV: 178 (100%) HC III: 969 (87%) HC II: 339	Total: 1551 (43.9%) Hospitals: 109 (84%) HC IV: 179 (93%) HC III: 914 (82%) HC II: 333	Hospitals: 85% HC IV: 97% HC III: 93% (52% SARA 2013) ACP & SARA	HC III +: 100% HC II: 20%	ACP, PEPFAR and SARA	Introduction of Option B+ initiated country-wide contributed to scale up

[11] Discrepancy between ACP and SARA figures is likely due to a stricter definition of HCT for ACP.

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
		(11.2%)	(11%) (PEPFAR)				
8. ART services available in all health facilities up to HC IV and 20% of HC III by 2015. (Proportion of health facilities with ART services; Proportion of HC IIIs with ART services).	Hospitals: 116 (100%) HC IV: 134 (81%) HC III: 54 (6%) HC II: 3 (0.2%) (ACP) Hospitals: 84% HC IV: 52% HC III: 5% HC II: 1% (SPA 2007)	Hospitals: 116 (100%) HC IV: 143 (86%) HC III: 56 (6%) HC II: 3 (0.2%) (ACP)	Hospitals: 125 (97%) HC IV: 187 (100%) HC III: 90 (8%) HC II: 24 (0.8%) and 35 specialized ART clinics	Hospitals: 125 (97%) HC IV: 187 (100%) HC III: 827 (74%) HC II: 24 (0.8%) and 35 specialized ART clinics SARA: HC IV+: 96% HC III: 53%	HC IV+: 100% HC III:20%		Accelerated scale up of accreditation of facilities in 2012 (online accreditation) which was more significant for HC III level where the number rose from 90 (8%) at the end of June 2012 to 827 (73.6%) by the end of June 2013.
9- The proportion of males circumcised (denominator is number of all males in Uganda).	25%	No data available	380,000 (38%)	510,000 (51%)	50%	SMS reports	There are still challenges with harmonization of reporting
10. HIV prevalence in the general adult population (15-49 years).	6.4% (UAIS 2004/05)	6.4%	7.3%	7.3%	5.5%	UAIS 2011	The rise is related to ARV availability and other benefits of PMTCT
Strategic Intervention 1.2.2: Reduce the morbidity, mortality and transmission of tuberculosis.							
1. TB case detection rate	57.3%	53.9%	53.7%	57%	70% (68% NTSP target)	NTLP	Stagnant progress
2. TB cure rate /Treatment success rate	Cure: 32% (34% NTSP baseline for 2010) TSR: 69.9% NTSP baseline for 2010)	Cure: 40% TSR: 67.3% (2009)	Cure: 34.9% TSR: 71.1% (2010)	Cure: 40% TSR:77.5% (2011)	Cure: 80% (45% NTSP target) TSR: 85% (80% NTSP target)	NTLP	Treatment success rate is showing good progress and is on track to meet the target. Cure rate is far below the HSSIP target (but NTLP target may be reached).
3. TB associated death rate among smear positive	4.7%	4.5%	4.5%	4.5%	2.5%	NTLP	No progress
4. The proportion of TB cases on supervised DOT	48% (40% NTSP baseline)	40%	47%	55%	100% (60% NTSP target)	NTLP	Increasing trend, but far below HSSIP target. NTLP target may be reached. There is concern regarding the quality of DOT services .
5. DST uptake among smear positive Relapse cases (CAT II)	46%	52% (NTSP)	61%	59%	75% (80% NTSP target)	National TB reference Laboratory	

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
6. High False Negative (HFN) prevalence at DTUs	Data not available	9% (NTSP)	2%	Data not available	<5%	National TB reference Laboratory	
7. Proportion of TB patients tested for HIV	71%	81%	80.4%	86%	100% (95% NTSP target)	NTLP	Increasing trend showing good progress.
8. Proportion of TB/HIV patients started on cotrimoxazole	88%	90% (NTSP)	90%	93%	100% (98% NTSP target)	NTLP	Increasing trend.
9. Proportion of TB/HIV patients started on ART	18.5%	34% (NTSP)	49%	56%	50%	NTLP	Target met.
10. Proportion of MDR TB patients started on treatment	0.3% (1 patient out of 334)	1.7% (7 patients out of 405)	6.2% (25 patients out of 405)	10.1% (41 patients out of 405)	100%	NTLP	Increasing trend but far below target. There is a challenge in accessing MDR data.
Strategic Intervention 1.2.3: Sustain the elimination of leprosy in all the districts.							
1. The prevalence of leprosy	0.13 per 10,000	-	-	0.15 per 10,000	< 1/10,000	NTLP	Elimination still sustained, but this is based on national data. Indicator not useful for district level
2. At least one "Skin Clinic" per Health Sub District (HSD) held on a weekly basis in all HSDs across the country.	Data not available	Data not available	Data not available	Data not available		NTLP	Only quarterly data on the number of functional leprosy units by district.
3. The rate of grade II disability in newly diagnosed leprosy cases	20.5%	-	-	25%	< 5%	NTLP	Increasing trend.
Strategic Intervention 1.2.4: Reduce the morbidity and mortality rate due to malaria in all age groups.							
1. Malaria prevalence	44.7%	-	-	-	20%	MIS	
2. The proportion of under-fives with fever who receive malaria treatment within 24 hours from a VHT	70%	8.2%	19.5%	43.5%	85%	Baseline, midterm and end-line survey in 26 districts	iCCM is implemented in 34 districts
3. The proportion of pregnant women who have completed IPT2 uptake	47% (HMIS 2009-10); 18% (UDHS 2006 for period 2004-06) UMIS: 32% (2009)	43% (HMIS); 27% (UDHS 2011 for period 2009-11);	44% (HMIS)	48.5% (HMIS)	80%	HMIS, UDHS, MIS	Positive trend but still below HSSIP target
4. The percentage of under-fives and pregnant women having slept under an ITN the previous night	U5: 32.8% Pregnant women: 43.7%	U5: 43% Pregnant women:47%	-	-	U5: 80% Pregnant women: 80%	MIS, UDHS 2011	
5. Proportion of households sprayed with insecticide in the last 12 months	5.5%	7.2%	8%	7.2%	30%	NMCP reports	The target for 2013 is for the proportion of targeted households

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
6. The case fatality rate among malaria in-patients under five	1.7%	1.0%	1.1%	0.8%	1%	HMIS	Target achieved
7. Proportion of households with at least one ITN	46.7%	60%	62%	70%	85%	NMCP reports	
8. The percentage of public and PNFP health facilities without any stock outs of first line anti-malarial medicines	Data not available	Data not available	82%	68% (Jul-Dec 2012)	80%	HMIS/mTRAC	
9. The percentage of government and PNFP health centres IIs and IIIs without stock out of rapid diagnostic tests.	-	-	-	86% of facilities had RDTs in stock (observed available and non-expired) on the day of the assessment (SARA 2013)	-	SARA	
10. Planned RBM partnership review meetings held.	50%	50%	75%	75%	100%	NMCP reports	
Strategic Intervention 1.2.5: Maintain the Guinea Worm free status of the country through maintenance of high quality post-certification surveillance.							
1. Timely reporting of guinea worm from villages at risk of importation	100%	-	92%	88%	100%	IDSR	Included in IDSR
2. All rumours of suspected guinea worm cases investigated.	100%	100%	100%	100%	100%	IDSR	Due to limited funding, most investigations are delegated to district focal persons (reported back to national level)
3. Case containment of imported guinea worm cases	100%	0 cases	0 cases	0 cases	100%	IDSR	• Reward system for active search • Surveillance in primary schools at border area
4. A MoU signed with neighbouring countries on elimination of guinea worm.	Protocol signed with East African countries including old sudan in 2003 for NTD control (including Guinea worm)			Meeting to be held in October to address inclusion of South Sudan among other issues	MoU including South Sudan to be signed	WHO	
Strategic Intervention 1.2.6: Eradicate onchocerciasis and its vector in all endemic districts in Uganda.							

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
1. Simulium nivae eliminated in all endemic districts in Uganda. (% endemic districts that have eliminated Simulium nivae)	Elimination in 7 isolated foci	Eliminated in 2 foci	Eliminated in 5 foci	Eliminated in 7 foci	100%	NTD report for MTR	Elimination of simulium flies in all isolated foci achieved
2. Therapeutic coverage in all affected communities / geographic coverage in endemic districts.	Therapeutic coverage: Data not available Geographic coverage: Data not available	Therapeutic coverage: Data not available Geographic coverage: Data not available	Therapeutic coverage: Data not available Geographic coverage: Data not available	Therapeutic coverage: 72.2% Geographic coverage: Data not available	Therapeutic coverage: >75% Geographic coverage: 100%	NTD report for MTR	
3. CDTI activities integrated within their district health plans in all endemic districts to sustain integration. (% endemic districts with CDTI activities integrated within district health plans)	90%	100%	100%	100%	100%	NTD reports	Activities included in district work plans but no funds allocated
Strategic Intervention 1.2.7: Achieve the global target for the elimination of trachoma.							
1. Prevention and control measures for trachoma fully integrated within the district work plans in endemic areas (% endemic districts with prevention and control measures fully integrated within district work plans)	3/24	10	20	24	100%	NTD report for MTR	Endemic in 36 districts
2. Endemic districts reached with mass distribution of Tetracycline and Azithromycin	19% = 11 out of 24 districts	16	28	100% = 36 out of 36 districts (district coverage varies from 50% to 85%)	100%	NTD report for MTR	
3. The provision of surgical services to patients with trichiasis	-	-	-	17,000	60,000 people	Reports from Regional ophthalmologist and Partners	
4. Number of lid rotation surgeons trained.	0	7	13	60	100	Reports from Regional ophthalmologist and Partners	Limited funds and personnel to be trained, OCOs.
Strategic Intervention 1.2.8: Reduce and ultimately interrupt transmission of lymphatic filariasis in all endemic communities through the use of chemotherapy with Ivermectin and albendazole.							
1. Therapeutic coverage for the affected people with single annual dose of Ivermectin and Albendazole	93%%	90.5%	82.6%	83.4%	100%	NTD report for MTR	
2. Mapping of areas with lymphatic filariasis completed in all endemic districts conducted by 2011/12.	75%	84%	100%	Completed	100%	NTD report for MTR	54 known LF endemic districts
3. Morbidity and disability associated with lymphatic filariasis reduced by 25% by 2015.	No Data	No Data	No Data	No Data	No Data		Data at Hospitals/Heath units, Limited funds for collection
Strategic Intervention 1.2.9: Eliminate sleeping sickness as a public health problem in Uganda.							
1. Access to diagnostic procedures and treatment of sleeping	40%	40%	50%	>50%	>80%	NTD report for MTR	Inadequate support for field

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
sickness for communities							surveillance staff
Strategic Intervention 1.2.10: Reduce morbidity caused by schistosomiasis by decreasing the worm burden among communities							
1. Coverage with mass chemotherapy in endemic districts	74%	90%	90%	95%	100% in all districts		Geographic coverage improving
2. All endemic districts integrate prevention and control measures within the district work plans (% endemic districts with prevention and control measures fully integrated within district work plans)	90%	100%	100%	100%	100%		Activities included in district work plans but no funds allocated
Strategic Intervention 1.2.11: Reduce morbidity and mortality due to Leishmaniasis among the endemic communities							
1. The magnitude and full extent of the disease in the country is established by 2010/2011	-	-	-	-	-	NTD report for MTR	Situational analysis within endemic regions will be conducted in second half of HSSIP
2. Increase early case detection	-	-	-	-	60%		
Strategic Intervention 1.2.12: Reduce the morbidity and mortality due to endemic, emerging and re- emerging zoonotic diseases							
1. Zoonotic diseases technical guidelines, developed and disseminated by 2011/2013.	5%	15%	25%	70%	100%	VPH Reports **AHIP Reports**	Guidelines include IEC and Advocacy materials published by Avian & Human Influenza Project (AHIP).
2. The proportion of General Hospitals and RRH conducting proper laboratory diagnosis of brucellosis increased by 20% and 50% by 2015 respectively	GH:2% RRH:15%	3% 22%	5% 28%	6% 35%	GH: 20% increase RRH: 50% increase	VPH Reports, CPHL communication	Proper diagnosis defined as use of the Titration and/or Culture method.
Strategic Intervention 1.3.1: Prevent Type 1 and Type 2 diabetes and reduce morbidity and mortality attributable to diabetes and its complications.							
1. Public awareness on diabetes and risk factors increased by 5% by 2015.	No data available	No data available	No data available	No data available			No baseline
2. Percentage of HCIVs and hospitals equipped with equipment to diagnose diabetes increased by 5% by 2015.	No data available	No data available	No data available	86% of HC IVs and hospitals can conduct blood glucose testing on-site (SARA 2013)			No baseline
3. Standard diabetes files utilized in 30% of health facilities HCIVs and hospitals by 2015.	No data available	No data available	No data available	No data available	30%		

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
Strategic Intervention 1.3.2: Prevent cardiovascular and related diseases and reduce morbidity and mortality attributable to CVDs.							
1. Standards and guidelines for CVD prevention and management developed by 2014/15.				Draft has been developed, awaiting presentation to TWG			
2. Public awareness on CVDs and their risk factors increased by 10% by 2014/15.	No data available	No data available	No data available	No data available			No baseline
3. The percentage of health facilities from HC IV and above equipped to diagnose CVDs increased by 5% by 2014/15.	No data available	No data available	No data available	59% of facilities HC IV and above have stethoscope, weighing scale, and blood pressure apparatus			No baseline. Unclear what equipment or diagnostic testing capacity is required for this indicator.
Strategic Intervention 1.3.3: Establish a national framework for cancer control with emphasis on cancer prevention.							
1. Cancer policy and National Cancer Control Program in place by 2013				Draft policy presented to TWG			
2. Increase in cancer awareness activities by 50% by 2013	No data available	No data available	No data available	No data available			No baseline. Indicator needs revision
3. Availability of cervical cancer screening in HC IVs country wide by 2015	No data available	No data available	No data available	No data available	100%		To be added to SARA survey questionnaire.
4. Establishment of two population based cancer registry and a national cancer data base by 2015				Hospital-based cancer registry established			Indicator needs revision.
5. Cancer guidelines and SOP for lower level training in place by 2013	-	-	-	Draft awaiting presentation to TWG			
Strategic Intervention 1.3.4: Prevent chronic respiratory diseases and reduce morbidity and mortality attributable to COPD and asthma.							
1. Increased awareness on COPD and asthma disease and risk factors	No data available	No data available	No data available	No data available			No baseline
2. Improved diagnostic capacity and treatment at all levels of care	No data available	No data available	No data available	0% of facilities had stethoscope, peak flow meters, and spacers for inhalers (SARA 2013)			Unclear what equipment or diagnostic testing capacity is required for this indicator.
3. Improved quality of data on COPD and asthma	No data available	No data available	No data available	No data available			Indicator difficult to measure
4. Increased quality operational research targeted to improve the prevention and management of COPD and asthma	No data available	No data available	No data available	No data available			Indicator needs revision

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
Strategic Intervention 1.3.5: Prevent Type 1 and Type 2 diabetes and reduce morbidity and mortality attributable to sickle cell and its complications.							
1. Policy and guidelines on Sickle cell disease developed by 2014/15.	No data available	No data available	No data available	No data available			Indicator needs revision. Policy will be part of NCD policy
2. Sickle cell clinics established in 30% of Regional Referral Hospitals by 2015.	-	-	-	-			Indicator needs revision. Services available but not in specialized clinic.
Strategic Intervention 1.3.6: Decrease the morbidity and mortality due to injuries, common emergencies and disabilities from visual, hearing and age-related impairments.							
1. Hearing impairment reduced from 8% to 6% by 2014/2015.	8%	5.4%	-	-	6%		Baseline was not national. Indicator needs revision.
2. Visual impairment reduced from an estimated 0.8% to 0.7% by 2014/2015.	0.8%	-	-	-	0.7%		Baseline was for blindness, not for visual impairment. Indicator needs revision.
3. Assistive devices provided to 80% of PWDs who need them by 2015.	-	-	-	-	80%		No baseline, and target was very ambitious. There are many categories of assistive devices – need to specify.
4. The proportion of the population reached with messages on disability prevention and rehabilitation increased to 80% by 2015.	No data available	No data available	No data available	No data available	80%		No baseline, and difficult to measure.
Strategic Intervention 1.3.7: Ensure increased access to primary and referral services for mental health, prevention and management of substance abuse problems, psychosocial disorders and common neurological disorders such as epilepsy.							
1. Mental Health Law enacted by 2011/12.	-	-	-	Presented to Cabinet in 2013			Awaits Cabinet approval
2. Mental Health Policy finalised and operationalised by 2010/11.	-	-	-	Presented to senior management in 2012			
3. Operationalise Mental Health Units in all RRHs by 2010/11.	-	-	-	100%			Achieved with SSHP support
4. Community access to mental health services increased from 60% to 80%.	60%	No data available	No data available	No data available	80%		No data. Indicator is costly to measure.
5. A community strategy for prevention of mental health problems developed by 2010/11.	No data available	No data available	No data available	No data available			
6. Services for alcohol and drug abuse management are available at HC IV by 2013/14.	No data available	No data available	No data available	No data available			Indicator needs revision, difficult to measure.
Strategic Intervention 1.3.8: Improve the oral health of the people of Uganda by promoting oral health and preventing, appropriately treating, monitoring and evaluating oral diseases.							

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
1. Oral health policy implementation guidelines developed and disseminated by 2010/2012.			Policy guidelines developed in 2011, not yet disseminated.	Guidelines pending printing.	Disseminated to all districts.		
2. The proportion of HC IVs with well-equipped and functional dental units	25%	No data available	No data available	No data available	80%		Funding for equipment was not realized. Indicator needs revision.
3. The proportion of the population with access to primary oral health care	20%	No data available	No data available	No data available	80%		
Strategic Intervention 1.3.9: Improve the quality of life of terminally ill patients and their families especially the home carers.							
1. Guidelines and standards for palliative care developed.	-	-	-	Guidelines developed in 2013			
2. All hospitals and HC IVs providing palliative care.	No data available	No data available	No data available	50% of districts	100%		
3. Adequate stocks of appropriate medication and supplies at palliative care centers are available.	No data available	No data available	No data available	No data available			Indicator needs revision. Medications and supplies need to be specified – can be added to the SARA survey.
Strategic Intervention 1.4.1: Reduce the morbidity and mortality related to sexual and reproductive health and rights							
1. The proportion of pregnant women attending ANC 4 times	47%	32%	34.2%	31%	60%	HMIS	Negative trend, far below target
2. The proportion of women who deliver in health facilities	33%	39%	38.1%	41%	90%	HMIS	Positive trend but far below target
3. The proportion of health facilities with no stock-outs of essential RH medicines and health supplies (6 tracer medicines)	10% (SURE)	34% (SURE)	48% (SURE) 70% (HMIS)	51% (SURE) 53% (HMIS) 41% observed availability non-expired on day of assessment (SARA 2013)	80%	SURE survey, HMIS, SARA	
4. The proportion of health facilities that are adolescent-friendly	10%	No data available	No data available	No data available	75%		
5. The % of health facilities with Basic and those with Comprehensive emergency obstetric care	10%		24%	25% 28% of public and PNFP facilities HC III and above provide BEmOC; 10% provide CEmOC (SARA 2013)	50%	HMIS, SARA	

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
6. The proportion of pregnant women accessing comprehensive PMTCT package	25%	No data available	No data available	No data available	80%	MTR report	
7. Contraceptive Prevalence Rate	24%	33%*	30% (2011)		40%	UDHS, Uganda national panel survey	
8. The unmet need for family planning	41%	-	-	34%	20%	MTR report	Significant progress but still far from target
9. Proportion of deliveries attended by skilled health workers	40%	-	-	59%	60%		
10. Adolescent pregnancy rate	24%	-	-	18%	15%		
11. The proportion of mothers who have completed IPT II	47% (HMIS 2009-10); 18% (UDHS 2006 for period 2004-06) UMIS: 32% (2009	43%	44%	48.5% (HMIS); 27% (UDHS 2011 for period 2009-11);	80%	HMIS, UDHS, MIS	Positive trend but still below HSSIP target
Strategic Intervention 1.4.2: Improve newborn health and survival by increasing coverage of high impact evidence based interventions, in order to accelerate the attainment of MDG 4.							
1. The proportion of neonates seen in health facilities with septicaemia/ pneumonia disease reduced by 30%	No data available	No data available	No data available	No data available			
2. The proportion of newborns receiving at least three post natal care visit during the 1st week increased to 60%	22.5% (HMIS) 26% (UDHS 2006 for period 2004-2006)	13.2% (HMIS) 33% (UDHS 2011 for period 2009-2011)	19.2% (HMIS)	29% (HMIS)	60%	MTR report	
3. Percentage of health facilities implementing more than two thirds of the minimum service standards	20%	No data available	No data available	No data available	40%		
4. Proportion of mothers of newborns 1-2 weeks practicing clean cord and skin care, keeping babies warm, exclusively breast feeding and recognize danger signs, increased by at least 30% from baseline figures	No data available	No data available	No data available	No data available			
Strategic Intervention 1.4.3: Scale-up and sustain high, effective coverage of a priority package of cost-effective child survival interventions in order to reduce under five mortality.							
1. Probable and confirmed malaria inpatient under five deaths (malaria case fatality rate in children under five)	1.7%	1.0%	1.1%	0.8%	1%	HMIS	Target achieved
2. Stunting rates among children under-fives	38% (2006)	-	33% (2011)	-	28%	UDHS 2006, 2011	On track
3. Neonatal septicaemia rates in health facilities reduced by 30%	No data available	No data available	No data available	No data available			
4. Neonatal tetanus rates reduced and maintained at zero	No data available	No data available	No data available	No data available	0%		

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
5. Non Polio Acute flaccid poliomyelitis rates maintained at greater than 2 per 100,000, and cases of paralysis due to wild polio virus maintained at zero	No data available	No data available	No data available	No data available			
6. Under-fives who slept under an ITN the previous night	10% (UDHS 2006) 33% (UMIS 2009)	-	43%	-	60%	UDHS, UMIS	Steady increase but below target
7. DPT-3/Pentavalent coverage for under 1's	76% (HMIS)	90% (HMIS) 66.0% (UDHS 2011)	85%	91%	85%	HMIS	
8. Measles vaccination coverage by 12 months	72%	85% (HMIS) 60.3% (UDHS 2011)	89%	91%	85%	HMIS	
9. U5s with malaria treated correctly within 24 hrs	29%	-	43%	-	60%	UDHS	
10. U5 pneumonia managed with correct antibiotic	17%	No data available	No data available	No data available	50%		
11. Children 6-59 months receiving doses of Vitamin A	36%	59%	68%	64%	80%		
12. HIV-exposed infants started on cotrimoxazole prophylaxis within 2 months of birth	No data available	No data available	No data available	No data available	80%		
13. Mother/newborn pair checked twice in 1st week of life (1st visit within 24 hrs)	No data available	No data available	No data available	No data available	50%		
14. Exclusive breast-feeding rate by the age of 6 months	60% (2006)	-	63%	-	60%	UDHS	
15. Diarrhoea cases receiving ORT during illness	37%	No data available	No data available	No data available	60%		
16. Index of U5s managed in an integrated manner at the facility using IMNCI	30%	No data available	No data available	No data available	60%		
17. Index of facility availability of tracer drugs and vaccines (anti-malarial, cotrimoxazole, measles vaccine, sulphadoxine/ pyrimethamine, depoprovera and ORS)	10% (SURE)	34% (SURE)	48% (SURE) 70% (HMIS)	51% (SURE) 53% (HMIS) 41% observed availability non-expired on day of assessment (SARA	80%	SURE survey, HMIS, SARA	Positive trend but below target

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
				2013)			
18. Number of facilities assessed and accredited as baby friendly (BFHI)	15	19	23	32	70		
19. Health workers who are competent in material resuscitation upon completing of training	No data available	No data available	No data available	No data available			
Strategic Intervention 1.4.4: Prevent morbidity and mortality due to gender based violence.							
1. An integrated strategy to address SGBV in the health sector developed and disseminated.	No data available	No data available	No data available	No data available			
2. Health service provision for survivors of rape scaled up in all district hospitals and 50% of HC IIIs.	-	-	-	Not yet well described		MTR report	
3. PEP Kits available in all district hospitals and 50% of HC IIIs.	No data available	No data available	No data available	No data available	District hospital: 100% HC III: 50%		
4. Health workers trained in clinical management of survivors of rape increased to 25% by 2015.	No data available	No data available	No data available	No data available	25%		
Objective 2: Improve levels, and equity in access and demand							
Strategic Intervention 2.1: Improve access to equitable and quality clinical services at all levels in both the public and private sectors and institutions.							
1. The functionality of the HC IVs	5%			36%	50%		Definition of functioning HC IV has not been harmonized. Percentage shown for 2012/13 is those providing EmOC.
2. Standards for best practice in hospitals established by 2012.				Draft I of hospitals operation manual has been developed	Final copy of manual		Manual to be finalized soon
3. Infection control guidelines finalized and being used in all hospitals by 2012/2013.				Integrated infection control guidelines launched at 18th JRM			Achieved
4. Functional Accident and Emergency Units established in all RRHs by 2014/15.	0%			23% 3 constructed in Masaka, Mubende, and Mbarara RRH	100%		
5. Blood Transfusion Centres set up in all RRHs (2 each year)	0%			31% Blood Transfusion Centers were set up in Mbarara, Mbale,	100%		Urgent need for construction in Moroto, to turn Blood Collection Centres in Hoima, Junja,

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
				Gulu, and Fort Portal RRH			Masaka, Rukungiri, Kabale, Kitovu into Distribution Centres
6. ICU/CCU established in 40% of the RRHs (1 ICU in RRH each year) by 2014/15	0%			20% 1 ICU constructed in Jinja RRH	40%		
Strategic Intervention 2.2: Attain and maintain an adequately sized, equitably distributed, appropriately skilled, motivated and productive workforce in partnership with the private sector, matched to the changing population needs and demands, health care technology and financing.							
Increase proportion of positions filled by trained health workers and attain right skills mix in the health sector.							
1. Proportion of approved filled positions at Local Government	49%	48%	55%	61%	75%	HR MTR report	Staffing levels in districts expected to increase to approximately 70% following nationwide recruitment of 7000 health workers in 112 districts to fill vacancies in HCIIIs and HCIVs.
2. Proportion of approved positions filled by trained health professionals	51%	53%	55%	60.5%	75%	Biannual report on Human Resources for Health	Staffing levels expected to increase following nationwide recruitment of health workers in 112 districts to fill vacancies in HCIIIs and HCIVs.
3. Percentage of staffing for midwives in HC IIIs in Hard-to-reach areas	46%		63%		100%	HR MTR report	-Staffing levels for midwives expected to increase following nationwide recruitment in 112 districts to fill vacancies in HCIIIs and HCIVs. -still need to determine actual status for hard to reach districts.
Improve HRH data systems to provide data for evidence based decision making							
4. Number of districts with functional HRIS	19 districts			74 districts	80 districts	HR MTR report	Very good progress. We should be aiming at covering all the districts.
5. Core HRHIS subsystems (Local Government, MoH (HRD), MoH (HRM), MoPS, and Professional Councils) integrated, linked and functional by end of FY 2012/13	Data not available	Data not available	Data not available	Data not available			

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
6. Develop a database for HRH that captures PNFP and PHP within two years				-HRIS databases established at UCMB secretariat and 28 UCMB hospitals -Orientation of hospital managers for UPMB completed.		HR MTR report	
Strengthen capacities for HRH policy, planning, Leadership and Management							
7. Train 70 health managers in HRH Policy, Planning and Management annually over the next five years				285	350	HR MTR report	Has to date trained a total of 285 health managers and leaders in HRH policy, planning, leadership and management. Of these; -109 completed a six month course in Leadership and Management, 52 are still undergoing training -124 (In charges of HCIIIs) completed a six month course in management of lower level health facilities.
8. Train 70 HRH managers in Leadership and Management annually over the next five years				109	350	HR MTR report	MOH working with Partners; UCP, BTC, Makerere University School of Public Health has to date trained a total of 109 health managers and leaders through a six month course in leadership and management as part of the strategy to improve HRM and address leadership challenges in the health sector. -52 new HR managers completed phase two of the three phase L&M course.
Improve HRH training and development to ensure adequate, relevant, well mixed and competent community focused health workforce.							
9. Establish a system for review of curricula by 2012				Not yet established		HR MTR report	
10. Proportion of bonded pre-service trainees absorbed increased to 100% in 2015, baseline to be determine by 2011				100%	100%	HR MTR report	Deployed to HTR / Underserved districts,

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
							though some of them were not well received.
11. Integrated in-service training plan for the sector developed by 2011				Draft sector training plan and guidelines completed and approved		HR MTR report	
12. Mid Term Review of the in-service training plan conducted by 2013				In-service training plan document ready	Operationalize the in-service training plan	HR MTR report	
Strengthen HRH Management Systems and Practices							
13. Strategy to ensure career development of health workers developed by 2012/13				Not yet done		HR MTR report	
14. Appropriate management structures at different levels reviewed by the end of FY 2011/12	Data not available	Data not available	Data not available	Data not available			
15. Reduce the time taken to access payroll from 6 months to one month by 2014/15				Proportion of new health workers that access payroll > 6 months fell to 12% in 2013 from 24% in FY in FY 2010 Proportion of new health workers that access payroll within 1st month of appointment increased to 17% in FY 2013 from 11% in FY 2010		HR MTR report	Training payroll managers in the use of the new pay roll management tools, Providing computers to 10 new districts to improve timeliness of submission of exceptional reports, conducting pay roll validation exercises in districts .
16. Establish the baseline for Absenteeism Rate by 2011/12				Not yet done		HR MTR report	
17. Reduce the Absenteeism rate by 20% per year over the next five years				-Tools for monitoring absenteeism in health sector developed and approved by MOPS		HR MTR report	
18. Results Oriented Management rolled out to General Hospitals by 2012/13				MoPS is working out a policy to introduce		HR MTR report	Delayed due to restructuring of mgt position

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
				performance contract system to all public servants			at health facilities and Policy shift for public servants employment
19. Proportion of functional Health Unit Management Committees (GoU and PNFPs General Hospitals and HC IVs = 308,)			Trained central level core facilitation team	Developed and disseminated training materials 148 District Trainers have been trained in 38 districts to train HUMCs at lower level health facilities	75% of districts have functional HUMCs All National and RRF Hospitals have functional HUMCs	HR MTR report	HDPs should be encouraged to priorities funding training HUMCs.
20. Proportion of health managers (RRH, GH, HC IVs) with signed Performance Agreements		Positions of Hospital Medical Directors established Recruitment done	signed Performance contracts	Monitoring going on	All health facilities mgt positions established , filled and signed Performance Agreements	HR MTR report	On target
Strategic Intervention 2.3: Increase access to essential, efficacious, safe, good quality and affordable medicines at all times.							
1. The percentage of health units without monthly stock outs of any indicator medicines	10% (SURE)	34% (SURE)	48% (SURE) 70% (HMIS)	51% (SURE) 53% (HMIS) 41% observed availability non-expired on day of assessment (SARA 2013)	80%	SURE survey, HMIS, SARA	Medicine availability is improving steadily. Drop seen in DHIS 2 data 2011/12-2012/13. Overall target not yet met. **Contributing factors** Implementation of last mile delivery by 3rd party providers, national strategy on medicines management SPARS at facility level and increased funding.
2. The funds in the MOH budget for procurement of EMHS increased from meeting 30% to 80% of need [Government of Uganda budget for procurement of EMHS increased from meeting 38% to 66% of MoH estimated need[12]]	- Need- 90bn	38% Need- 107bn	72% Need-118bn	66% Need-130bn	80% Need-159bn	BFP/ NMS Reports	Estimated targets not achieved for review period due to inadequate funding for EMHS from government. There is need to advocate and lobby for more funding and identify other funding mechanisms to fill the gap.
3. The service level of NMS for all EMHS increased to 80%.	59%	75%	95%	Distribution to districts	80%	NMS Reports	Increased government

[12] Estimated need calculated based on National Quantification and considered the inflation rate (7%) and population growth rate (3%)

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
[Utilization of government funds spent by NMS increased from 59% to 95%.]				not yet known			funding and timely disbursements to NMS, Availability of EMHS at NMS, Better order processing time. Should not deviate by 5% of the allocated budget
4. The % of NDA budget directly financed by GoU (consolidated funds) increased to 25%).	0%	0%	0%	0%	25%	BFP	MoH Funds have not been disbursed to NDA
5. Guidelines for donated medicines developed by 2012.	-	-	-	Adopted existing guidelines	Guidelines for donated medicines in place	Reports	MoH developed guidelines based on WHO but need to be disseminated
Strategic Intervention 2.4: Provide and maintain functional, efficient, safe, environmentally friendly and sustainable health infrastructure including laboratories and waste management facilities for the effective delivery of the UNMHCP, with priority being given to consolidation of existing facilities.							
1. The proportion of the population of Uganda living within 5 km of a health facility	72%	72%		Data not available. All health Facilities mapped on GIS awaiting population projection – by Parish -by UBOS in order to determine population density around health facilities	90%	MTR report	
2. The number of health facilities increased by 30% by 2015.	4,333	4,394	5,228	5,229	5,712	Health facility inventory	Good progress
3. The proportion of HC IIIs and HC IVs with complete basic equipment and supplies for addressing EmoNC increased to 100%.					100%		
4. The proportion of HCIVs and hospitals with functional ambulances for referral increased to 100%.	HC IV: 37% Hospitals: 69% (Estimate)	Data not available	Data not available	Data not available	100%		Need to collect data from stakeholders
5. Percent of medical equipment are in good condition and maintained.	40%	40%	51%	51%	60%		Results based on only 25 Health facilities. Need to conduct an Inventory for a more representative sample.
6. Percentage of mobile population physically access health facilities.	Data not available	Data not available	Data not available	Data not available	50%		No data. Pilot mobile clinics in Moroto and Kotido districts due to lack of facilitation.
Objective 3: Accelerate quality and safety improvements							

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
Strategic Intervention 3.1: Ensure provision of high quality health services and contribute to the attainment of good quality of life and well-being.							
1. National supervisory framework operational by July 2011.			Proposal developed	Procurement of consultancy services ongoing	By July 2011	Supervision Framework	To be operational by Dec 13
2. Reviewed supervision guidelines and tools disseminated by 2012.	2001 Guidelines		Proposal developed	Procurement of consultancy services ongoing	By 2012	Guidelines	To be reviewed and disseminated by 2013
3. Proportion of districts where capacity for internal supervision has been built (100% by 2015).		0%	0%	0%	100%	Reports	Inadequate funding. Indicator should be reviewed.
4. Proportion of supervisory reports shared by supervisees increased to 100% by 2015.		No assessment	100%	100%	100%	Surveys	On site feedback always provided at health facilities and local governments.
5. Proportion of planned visits that are carried out increased to 100% by 2015.		Area Team: 100%	Area Team: 75%	Area Team: 25%	100%	Reports	During 2012/13 only one AT visit was carried out and to only 50% of the districts due to financial constraints. In the first 2 years of the HSSIP, quarterly AT supervision visits were carried out to all the districts
6. Proportion of facilities attaining set standards	Data not available	Data not available	Data not available	Data not available	75%	Reports	Indicator not clear and not assessed. Need to review the indicator
7. An Inspectorate Division at MoH headquarters created by 2013.		None	None	None	By 2013		Recommendation made to the MoPS restructuring review team
Strategic Intervention 3.2: Ensure effective and efficient utilization of available resources							
1. National quality improvement framework and performance measurement plan operational by July 2011		Draft developed	Launched Feb 2012	Health Sector QIF & SP is operational	By July 2011		Dissemination of the QIF & SP is in progress.
2. Yellow Star Programme reviewed by 2012.		Not done	Not done	Not done	By 2012		Not yet streamlined.
3. Appropriate standards, guidelines and tools developed and disseminated by December 2011.		Draft QIF & SP Uganda Clinical Guideline (UCG) 2010. Patient Charter	Finalized and launched QIF & SP 2010/11 – 2014/15 Performance Improvement Training Manual	QIF & SP disseminated in Rwenzori Region (7 districts); 5S Guidelines and Handbook developed; Standards for diagnostic imaging and therapeutic	By December 2011		Guidelines developed but dissemination was poor due to inadequate funds from MoH. Development was mainly achieved with support by partners.

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
			developed Infection Control & prevention guidelines reviewed. MoH Client Charter (2012).	radiology developed; Client Charter for RRHs; MOH Governance & management Structure Guidelines 2012			
4. Proportion / number of districts implementing the QI strategy (100% by 2015)	Had not been developed	Data not available	Data not available	100%	100%		QI Strategy launched in 2012 and districts are various level of implementation of QI.
5. Number of performance monitoring activities carried out (Annual QI stakeholders meetings).	Nil	Nil	National QI conference held in February 2012.	5S conference held in July 2012 National QI Conference held May 2013	Annual National meetings		Supported by HDPs.
Strategic Intervention 3.3: Establish dynamic interactions between health care providers and consumers of health care with the view to improving the quality and responsiveness (including gender responsiveness) of health services provided.							
1. Proportion of districts where Health Unit Management Committees in HC II-IV, general hospitals are functional (meeting at least once a quarter) (75%)	0%	Data not available	Data not available (no study has been conducted)	75%			Health Unit Management Committee Guidelines were printed and disseminated.
2. Number of surveys conducted to assess client satisfaction and gender responsiveness.	2008/09 survey	None	Concept note for client satisfaction survey developed	Client satisfaction survey to be conducted with support from UHSSP	By 2012		Delays in procurement of consultancy services delayed implementation
3. Mechanism for client / right holders redress established and operational	None	None	None	Done for MOH Central and 3 RRHs	By 2015		Draft Client Charters developed for RRHs. To be considered in the remaining period of HSSIP

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
4. Proportion of districts with CSO participation (CSOs structures developed at all levels in 65% of districts by 2015: National, district and sub-county).	Data not available	Data not available	Data not available	Data not available			
5. Clients' Charter reviewed by 2012.			MoH Client Charter reviewed	MoH Client Charter launched. Supported Gulu, Masaka and Mbale RRH develop client charters	By 2012		MoH Launched. Yet to launch for RRHs and also plan for wider dissemination
6. Patients' charter reviewed, translated and disseminated to 100% of district by 2015.	Data not available	Data not available	Data not available	Data not available			
Objective 4: Improve efficiency and effectiveness of services							
Strategic Intervention 4.1: Mobilize additional resources to fund the HSSIP.							
1. Development of a health financing strategy by June 2011.				Draft is developed, should be in place by end 2013		Reports	
2. Increase level of Government allocation to Health from 9.6% to a minimum of 15% of the total GOU budget by 2014/15.	9.6	8.9	8.3	7.9	15%	MTEF	Declining trend and is off target
3. Government per capita expenditure on health increased to 12$ by 2014/2015.	11.1	9.4	10.29	9	$12	Reports	Attainable but not sufficient based on the current needs
Strategic Intervention 4.2: Improve management of development assistance for health.							
1. Percentage of expected quarterly HDP donor project reports on disbursements and commitments that are received timely. Target 60% by 2014/15.	No data available	No data available	No data available	No data available	60%	Reports	This area is still weak and needs further strengthening.
2. External funding for health as a percentage of total health expenditure.	41	14	26	No data available		Reports	Need improvement to achieve target
3. Proportion of donor project funds budgeted that is on MTEF within the Health sector votes. Target 100% by 2015.	No data available	No data available	No data available	No data available	100%	Reports	Lack of information from some major DPs and this is a big challenge for

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
							leadership
Strategic Intervention 4.3: Ensure effectiveness, efficiency and equity in resource allocation and utilization.							
1. Percentage of actual releases to Districts, Hospitals, autonomous institutions and other sector spending agencies deviating less than 5% from the approved budgets.	No data available	No data available	No data available	No data available			
2. Per capita out of pocket expenditure on health	$22 (2008/09)	-	-	-	$10 per utilization	NHA	
Strategic Intervention 4.4: Ensure transparency and accountability in resource allocation and management							
1. Institutionalize the National Health Accounts by 2012.				In progress (by 2014/15)			
2. Percentage of quarterly internal audit reports (district, hospitals, central level) prepared and submitted timely. Target 100% by 2014/15.	No data available	No data available	No data available	No data available			
3. Percentage of (district, hospitals, central level) quarterly Budget performance reports prepared and submitted timely by GOU health sector spending agencies	70%	District: Hospital: Central: Data not available	District: Hospital: Central: Data not available	District: Hospital: Central: Data not available	100%		
Objective 5: Deepen sector stewardship							
Strategic Intervention 5.1: Strengthen the organization and management of the national health system.							
1. Increase the proportion of approved filled positions at local government from 49% to 75% by 2014/15.	49%	48%	55%	61%	75%	HR MTR report	Staffing levels in districts expected to increase to approximately 70% following nationwide recruitment of 7000 health workers in 112 districts to fill vacancies in HCIIIs and HCIVs.
2. The percentage of government budget allocated to the health sector increased from 9.6% to 15%.	9.6	8.9	8.3	7.8	15%	MTEF	Annual budget of the MoH increased every year between 2010/11-2012/13. Declining trend and off target
3. Health policies, standards and guidelines for the East African Community harmonized by 2014/15.	Data not available	Data not available	Data not available	Data not available			

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
4. Joint planning, monitoring and evaluation with various relevant sectors instituted by 2011/2012.	Data not available	Data not available	Data not available	Data not available			
5. No. of service delivery models designed, piloted and established for disadvantaged population groups.	Data not available	Data not available	Data not available	Data not available			
6. The proportion of districts that submit timely HMIS monthly and quarterly reports increased from 68% to 100% by 2014/2015.	68%			-	100%		With DHIS 2, districts no longer submit monthly reports
7. The percentage of districts[13] with operational VHTs increased from 31% to 100%.	31%	40%	40%	55%	100%	Supervision reports	No funding for further establishment
Strategic Intervention 5.2: Enable evidence-based decision making, sector learning and improvement.							
1. The proportion of implementing partners (NGOs, CSOs, Private sector) contributing to periodic reports increased to 90% by 2015.							
2. Community based HIS established and linked to HMIS by 2015.							
3. The proportion of planned periodic review that are carried out increased to 100% by 2015.							
4. HMIS timeliness increased to 100% by 2015.		77%	77.8%	80.2%	100%		
5. HMIS completeness increased to 100% by 2015.		85%	86.5%	93.9%	100%		
6. Proportion of planned validation studies that are carried out.	Data not available	Data not available	Data not available	Data not available			
7. The proportion of sub national entities (districts, health facilities) that have reported on the key indicators as planned increased to 100% by 2015.	Data not available	Data not available	Data not available	Data not available	100%		Need to clearly define the key indicators
8. Selected data disaggregated by age & sex with concomitant gender analysis.			HMIS forms revised in 2012 to take into account the required age and sex disaggregations				Achieved
Strategic Intervention 5.3: Create a culture in which health research plays a significant role in guiding policy formulation and action to improve the health and development of the people of Uganda.							

[13] Note that the HSSIP core indicator is for the proportion of **villages/wards** with trained VHTs

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
1. A policy and legal framework for effective coordination, alignment and harmonization of research activities developed by 2012.	Data not available	Data not available	Data not available	Data not available			
2. A prioritized national research agenda developed by 2012.				Initiated	By 2012		Delays in development and approval of policy and strategic plan
3. Institutions involved in conducting research identified by 2011.	Data not available	Data not available	Data not available	Data not available			
Strategic Intervention 5.4: Review and develop relevant Policies, Acts and regulations governing health which are gender responsive and human rights compliant and to ensure their enforcement.							
1. Number of policies reviewed and developed.	Data not available	Data not available	Data not available	Data not available			
2. Number of relevant international legal instruments on health that have been domesticated		IHR, IDSR (2010), and International framework to investigate outbreaks of unknown origin have been domesticated. Global health initiative is currently in progress, as well as the development of the disease outbreak response centre.					
3. Number of laws reviewed and developed to make them gender – responsive and human rights compliant.		Policies reviewed for gender responsiveness and human rights include HIV testing and counseling and mental health policies. Ministry of Gender, Labour, and Social development and Uganda Human Rights Commission are responsible for reviewing laws					
4. Number of law enforcers trained in new legislation and policies to ensure implementation of legislation and policies.				No progress			
5. An effective regulatory environment and mechanism developed.	Data not available	Data not available	Data not available	Data not available		Professional bodies (councils)	
6. An adequate and functional staffing structure of Professional councils established over the next five years.	Data not available	Data not available	Data not available	Data not available		Professional bodies (councils)	
7. A Joint Professional Council with decentralized supervisory authorities established and operationalised over the next five years.	Data not available	Data not available	Data not available	Data not available	Decentralized supervisory authorities are established	Professional bodies (councils)	Draft bill for the Joint Professional Council developed
Strategic Intervention 5.5: Effectively build and utilize the full potential of the public and private partnerships in the health sector.							
1. The National Policy on PPPH is approved by the Cabinet by 2011			Launched and disseminated in March 2012				
2. Implementation Guidelines tested at district level.				Guidelines under			

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
				review			
3. Approval of traditional medicine regulatory bill by 2011.		Submitted for approval					
4. All PPPH District Desk Officers appointed by 2012.	Data not available	Data not available	Data not available	Data not available			
5. Number of districts signing service level agreement with the PNFP, PHP and the CSOs, with definition of targets and outputs.				MOU template developed and distributed with the annual planning guidelines. No reporting mechanism.			
6. Number of districts which have developed a joint public-private District Health Plan	Data not available	Data not available	Data not available	Data not available			
7. Number of districts in which PHP sub-sector contributes to the HMIS.	Data not available	Data not available	Data not available	45% = 50/112	50%		Structural issues with data in 2011/12; data for preceding years were reported as district aggregates, thus individual facilities cannot be disaggregated
8. Number of districts reporting disaggregated output data by public-private contribution.	0	0	Data not available	45% = 50/112			Disaggregated output available in DHIS 2, phased in across all districts in 2011/12
Strategic Intervention 5.6: Strengthen collaboration between the health sector and other government ministries and departments, and various public and private institutions (universities, professional councils, etc.) on health and related issues.							
1. The structures and methods of consultation with other government Ministries and Departments are defined by 2011.				Structures and methods defined (through Technical Working Groups as well as regional/local government planning meetings)	By 2011		
2. All new government policies assessed using the HIA tool.	Data not available	Data not available	Data not available	Data not available			
Strategic Intervention 5.7: Implement the national health policy and the Health Sector Strategic Plan within the Sector wide Approach and IHP+ framework, through a single harmonized in country implementation effort, scaled up financial, technical and institutional support for health MDGs and ensuring mutual commitment and accountability.							
1. A Country Compact signed by the MoH, HDP, CSOs and the private sector.				Compact signed			Achieved. Implementation of the Compact monitored regularly
2. A joint budget support framework instituted.		JAF3	JAF4	JAF5			Joint Assessment Framework (JAF) functional and agreed on annual

	Baseline	Achievement			Target 2014/15	Source	Comments
	2009/10	2010/11	2011/12	2012/13			
							priority actions.
3. Annual joint reviews and monitoring conducted.	Done	Done	Done	In progress (September 2013)			Aide Memoire signed to guide planning for subsequent year+1