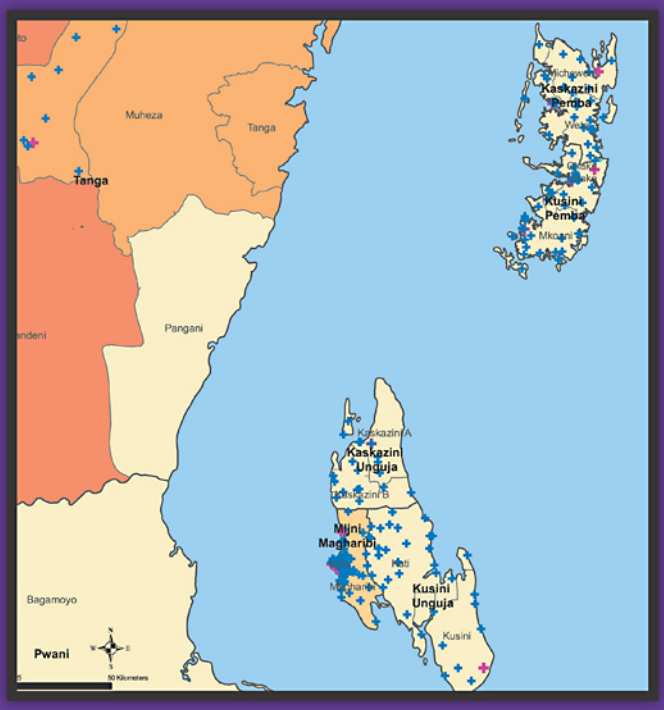

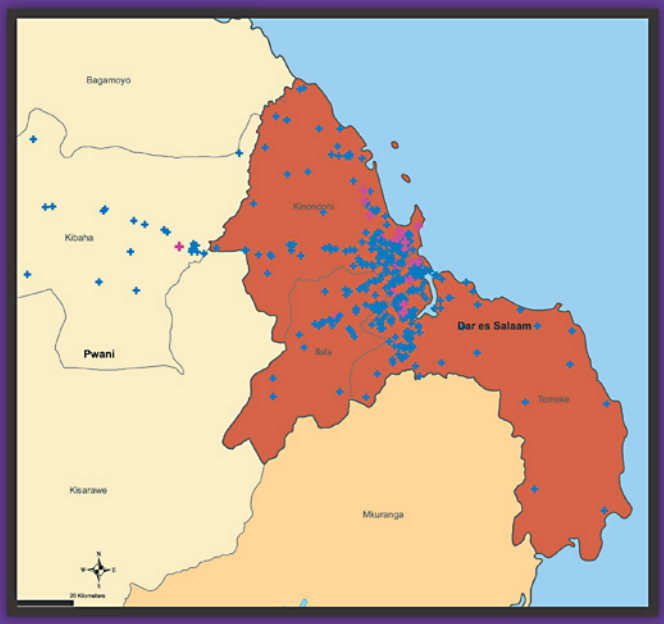

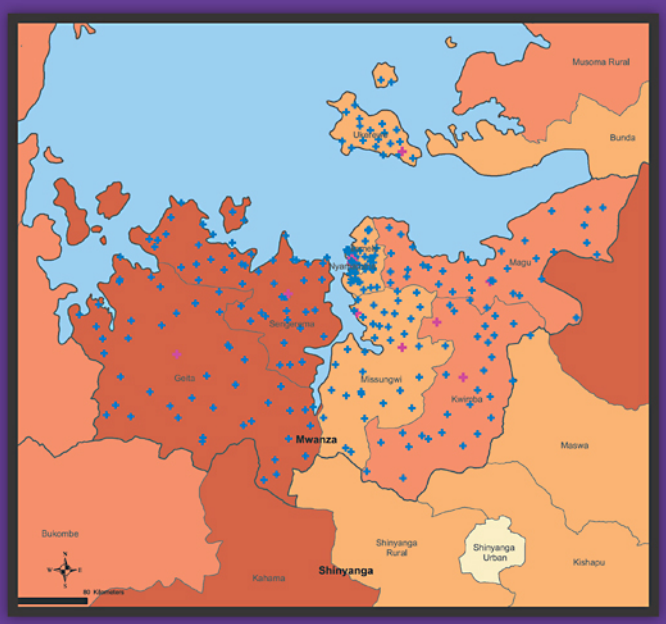

TANZANIA SERVICE AVAILABILITY MAPPING

2005–2006

Tanzania Service Availability Mapping 2005–2006

Ministry of Health and Social Welfare, Tanzania Mainland
and Ministry of Health and Social Welfare, Zanzibar

In collaboration with the World Health Organization

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CONTENTS

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The Ministry of Health and Social Welfare (MOHSW) in collaboration with the World Health Organization (WHO) takes pleasure in presenting the results of the 2005–2006 Tanzania Service Availability Mapping Survey (SAM). The Tanzania SAM was made possible by the participation of health workers throughout the country and by special teams of supervisors and interviewers.

The national SAM was coordinated by Mr J. J. Rubona of MOHSW, in close collaboration with Mr Maximillian Mapunda and Dr Eli Nangawe in the WHO Country Office in the United Republic of Tanzania. Special thanks go to the Director of Policy and Planning MOHSW Tanzania Mainland, Mrs Regina L. Kikuli, Director of Human Resources and Development MOHSW Tanzania Mainland, Dr Gilbert R. Mliga, Director of Hospital Services MOHSW Tanzania Mainland, Dr Zachary A. Berege, Director of Administration and Personnel MOHSW Tanzania Mainland, Ms Tabu A. Chando, Director of Policy and Planning MOHSW Zanzibar, Mr Said Abdallah Natepe and to the WHO Representative for the United Republic of Tanzania, Dr F. Maganu, who supported the implementation of the survey and provided the leadership to the team in spearheading the activities throughout the process. The Mwanza SAM was conducted by a team led by Professor Gabriel Mwaluko of the nongovernmental organization Tanzania Essential Strategies against AIDS (TANESA) and Mr Mark Urassa of the National Institute of Medical Research Mwanza Centre. We are grateful for the efforts of the field enumerators (see Annex A) who collected the data from districts and health facilities.

It is not possible to mention all the partners and individuals who contributed in one way or another in the successful completion of the survey, but I would like to thank all and, in particular, to convey my sincere appreciation to WHO and MEASURE Evaluation.

Technical assistance was provided by Dr E. W. Soumbey-Alley, Regional Adviser of the Health Information System Programme in the WHO Regional Office for Africa, a team from WHO headquarters, Dr Ties Boerma, Director, Department of Measurement and Health Information Systems, Mrs Shanthi Noriega-Minichielo, technical officer and SAM focal point, and Dr Stephanie Mullen of MEASURE Evaluation. Financial assistance was provided by WHO, the President's Initiative Emergency Plan to Fight HIV/AIDS of the United States Agency for International Development (USAID) and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

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FOREWORD

The Ministry of Health and Social Welfare (MOHSW) presents the results of the 2005–2006 Tanzania Service Availability Mapping Survey (SAM) that was carried out between December 2005 and February 2006. Fieldwork for the Mwanza region was, however, conducted much earlier in 2005 by Tanzania Essential Strategies against AIDS (TANESA) and the National Institute for Medical Research (NIMR) Mwanza Centre. For the United Republic of Tanzania, this survey represents the first trial of SAM tools developed by the World Health Organization (WHO). Information from SAM complements information from the existing health information systems in the country.

SAM is a rapid assessment tool that generates information on the availability of specific health services, health infrastructure and human resources for each district. This new technique for collecting health-related information would play a specific role in the monitoring and evaluation process. In this respect SAM objectives are to:

- Provide planners and decision-makers with information on the distribution of services within the country, with a focus on the district level;
- Provide baseline monitoring information for increasing the provision of key services such as antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of HIV and testing and counselling for HIV/AIDS (acquired immunodeficiency syndrome); and
- Assess whether the facility SAM can become a useful and feasible planning and monitoring tool at the district level.

Taking into consideration the above objectives, SAM tools are intended to periodically provide information that is required to respond to health-system management problems. Responding to SAM warning signals requires detailed investigation of underlying factors contributing to health-system management problems. The investigation may include gathering information from other sources such as health management information systems, sentinel surveillance systems, operation research and surveys.

We believe that this report and the availability of SAM data on a periodic basis will provide information that is valuable to all stakeholders. The challenge that remains is to use this information effectively in order to improve the health status of Tanzanians.

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ABBREVIATIONS AND ACRONYMS

AIDS	acquired immunodeficiency syndrome
AMO	assistant medical officer
ART	antiretroviral therapy
DOTS	directly observed treatment, short course (treatment for tuberculosis)
EOC	emergency obstetric care
HIV	human immunodeficiency virus
IMAI	Integrated Management of Adult Illness
IMCI	Integrated Management of Childhood Illness
IPT	intermittent preventive therapy
ITN	insecticide-treated bednet
MOHSW	Ministry of Health and Social Welfare
MTUHA	health management information systems (in Kiswahili)
NIMR	National Institute for Medical Research
NGO	nongovernmental organization
PDA	personal digital assistant
PMO-RALG	The Ministry of Health and Social Welfare and the Prime Minister's Office of Regional Administration and Local Government
PMTCT	prevention of mother-to-child transmission
SAM	service availability mapping
STI	sexually transmitted infection
TANESA	Tanzania Essential Strategies against AIDS
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
VCT	voluntary counselling and testing

TANZANIA SERVICE AVAILABILITY MAPPING (SAM) 2005–2006 EXECUTIVE SUMMARY

1 Background

1.1 The Tanzania SAM 2005–2006 aimed to complement existing information on health services and provide the United Republic of Tanzania with information on the distribution of facilities, human resources, and basic health services. The SAM included a national survey of all districts in the United Republic of Tanzania, a SAM of facilities in all districts of Dar es Salaam and Mwanza regions, Zanzibar, and the district of Kibaha in Pwani; and an HIV prevention-focused SAM of schools, workplaces and priority prevention areas in Mwanza region.

1.2 The Tanzania SAM was conducted by the Ministry of Health in Tanzania mainland and Zanzibar, with technical assistance provided by WHO and the MEASURE Evaluation. The nongovernmental organization (NGO) Tanzania Essential Strategies against AIDS (TANESA) and the National Institute for Medical Research (NIMR) implemented the Mwanza surveys. Funding was provided by President's Emergency Plan for AIDS Relief (PEPFAR) of the government of the United States of America (USA) and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

1.3 The two questionnaires, one for district medical officers and their teams and one for health facilities, were programmed in a personal digital assistant (PDA) and information was collected on the availability of infrastructure, human resources, infrastructure and services. The PDA data were downloaded to a computer using WHO Health Mapper software to produce maps and export data to Excel for data editing and to statistical analysis.

2 District survey – health infrastructure

2.1 The national district SAM was implemented by the health ministry and included visits to all except one of the 129 districts in the United Republic of Tanzania between November 2005 and January 2006. A national training course was conducted before the start of the fieldwork. The interviewer teams consisted of national, regional and district staff from the Ministry of Health and Social Welfare. The teams were provided with lists of health facilities for updating during the SAM.

2.2 ***Health facilities***: Overall, 5795 health facilities were reported by the districts. The majority were public facilities (67 per cent), followed by NGO (16 per cent) and private (14 per cent). In urban areas such as Dar es Salaam and Unguja Town, about half of the service providers were private. The total number of facilities has increased from 3790 in 1995 to 5552 in 2006. The growth in the number of facilities kept up with population growth and the density increased from 1.3 to 1.5 facilities per 10 000 population. The proportion of facilities that are private more than doubled from 6 per cent in 1995 to 13 per cent in 2006.

2.3 ***Inpatient beds***: Tanzania has more than 42 000 inpatient beds, including nearly 6000 maternity beds. In addition, there are more than 4000 delivery beds. The numbers of maternity and delivery beds appear inadequate for the estimated 400 000 deliveries taking place in health facilities each year. About one in 14 beds (7 per cent) were in private health facilities. There are 11.2 beds per 10 000 population, which is about the same as in Rwanda and Ghana, higher than

in Ugnda (8) and lower than in Kenya (14) and Zambia (20). There are threefold differences in the density of health facility beds between regions. At the lower end, Shinyanga region has only 4.9 beds per 10 000 population; at the higher end, Dar es Salaam and Lindi regions have more than 15 beds per 10 000 population.

2.4 ***Water supply***: 11 districts (9 per cent) responded that all health facilities had access to improved water supplies, 43 districts (35 per cent) indicated that more than half of the facilities had safe water supplies. The majority of districts reported that less than half of the facilities had access to safe water (52 per cent). Four districts (3 per cent) reported no access.

2.5 ***Communications equipment***: Four out of five districts had (working) landline telephones. Among the 128 districts, nearly all had access to cellular networks, and almost all reportedly had cellular phones. Only one district (Namtumbo) did not report any type of telephone connection. Just over half of the districts had shortwave radio. While all but four districts had computers (97 per cent), the majority did not have Internet connections. About one in five health management teams in districts of the United Republic of Tanzania are connected to the Internet.

2.6 ***Partner support***: All council health management teams were asked about the presence of partners to support their district programmes. Multilaterals were present in 84 per cent of districts; NGOs in 81 per cent; bilateral donors in 73 per cent and individual donors in 38 per cent. On average, 2.7 partners were reported to be active in each district. While six districts (Kigoma Urban, Sumbawanga Rural, Uyui, Nkasi, Kiteto and Bukombe) reported having no partners, 33 districts reported that all four partners were active in their district.

3 District survey – human resources

3.1 The Tanzania SAM 2006 collected information on the presence of the main cadres of health workers in each district. The council health management teams were encouraged to report staff working in all sectors, although it is likely that public-sector reporting is more complete than private-sector reporting.

3.2 ***Doctors***: The SAM 2006 reported 1339 physicians, including 455 in the private sector. About half (52 per cent) of all doctors were employed in the Dar es Salaam region, where the density of doctors was six times higher than the national average (0.4 doctors per 10 000). The total number of assistant medical officers (AMOs) was about the same as that of physicians, and the majority were working in the public sector (74 per cent). Density of doctors and AMOs combined exceeded 1 per 10 000 in Dar es Salaam, Arusha, Mwanza, and the five regions of Zanzibar. Ten regions have less than 0.5 doctors or AMOs per 10 000 population, with Shinyanga, Tabora, Kagera and Mbeya having the lowest densities. Clinical officers have a shorter clinical training than AMOs and only perform minor surgery, but they were much more numerous than doctors and AMOs combined. In total, 6908 clinical officers were reported, corresponding to 1.8 per 10 000 population.

3.3 ***Nurses***: The districts reported a total of 4841 nurses and 9990 nurse/midwives. This corresponds to 1.3 nurses and 2.6 nurse/midwives per 10 000 population. Among nurses and nurse/midwives, 12.1 per cent and 14.5 per cent, respectively, work in the private sector. Zanzibar has about twice as many nurses and midwives as the mainland: 8.2 and 3.8 per 10 000 population, respectively. Only the Dar es Salaam region has more nurses and midwives. The skills mix is another indicator of the distribution of health workers. In the United Republic of Tanzania as a whole, there are 5.3 nurses/midwives for every doctor or AMO. Zanzibar has a considerably higher ratio than mainland Tanzania (8.0 and 5.2, respectively).

3.4 ***Comparison with other countries***: The Tanzania density of health workers (doctors, nurses, midwives, 3.9 per 10 000) is markedly lower than in Uganda (8.3), Ghana (6.6) and Zambia(6.1). The distribution of health workers is often very uneven within countries. The ratio capital / outside capital city in the United Republic of Tanzania is 2.9 which is lower than in Ghana (6.6) and Uganda (4.5), but higher than in Zambia (1.4). The Tanzania ratio is, however, considered an underestimate due to a suspected underestimation of the number of health workers in the private sector in Dar es Salaam.

3.5 ***Training intensity***: The programmes for which the districts report high levels of coverage include well-established programmes such as directly observed treatment, short course (DOTS) for tuberculosis and safe motherhood, where more than half of the districts reported that at least half of the health workers had been trained. Training in Integrated Management of Childhood Illness (IMCI) and treatment and care of patients with HIV/AIDS had reached the majority of health workers in about half of the districts. The situation is quite different for the training programmes for HIV counselling, health-services management, and adolescent sexual and reproductive health, where only about one-fifth of the districts reported that most of their health workers had been trained. For prevention of mother-to-child transmission (PMTCT), the figure is even lower.

4 District survey – service availability

4.1 The questionnaire used different approaches to collect data from the council health management teams. For some services it was simply asked whether the service was present at all in the district, e.g. CD4 cell counts. For other services and service characteristics, the district team was asked to roughly estimate the percentage of health facilities providing the service in the district, using four categories (none, less than 50 per cent, more than 50 per cent, and all), e.g. safe water supply. Lastly, the facility listings for each district were used to determine for each facility whether or not a specific service was provided, e.g. ART.

4.2 ***Laboratory services***: 91 per cent of all districts can provide a blood count, 93 per cent can do a test for blood sugar, 98 per cent a test for haemoglobin, and 41 per cent do serological tests for liver functions. In 12 districts basic haematology (blood count, haemoglobin and blood sugar) could not be done At the time of the Tanzania SAM 2006, CD4 cell counts could be done in 45 of the 128 districts (35 per cent).

4.3 ***Blood transfusion***: 12 districts reported having no blood transfusion services at all. Seven districts offered blood transfusion services but had no donor blood collection, which implies that their supply comes from another district or regional centre. Most districts use more than one type of donor: 70 per cent used volunteer donors, 33 per cent used paid donors, and all indicated that they also used relative donors; 59 per cent of districts reported that there had been shortages during the seven days preceding the interview.

4.4 ***Medical equipment***: 77 per cent of districts could provide oxygen and 84 per cent could perform an X-ray for diagnostic purposes. The poorest results were reported by districts in Mtwara, Shinyanga and Tabora regions.

4.5 ***Injection practices***: Disposable needles and syringes were most commonly used in all districts. The most common method of sterilization was sterilizers (53 districts), followed by autoclave (44 districts). There were, however, also 17 districts (13 per cent) that reported that boiling pots, a less desirable method of sterilization, was still the predominant method.

4.5 ***Service provision HIV/AIDS***: In mainland Tanzania, ART was available from at least one facility in 65 per cent of districts, including one quarter of districts with two or more ART facilities. PMTCT services are not available at all in 16 per cent of districts, while 21 per cent of districts

have only one facility providing PMTCT. HIV counselling and testing is more widely available; only two districts indicated that they did not have such services in any facility and almost two thirds of districts had at least four service-delivery points for counselling and testing.

4.6 ***Service provision malaria***: Social marketing programmes of bednets has penetrated virtually all but seven districts. In 69 per cent of districts, no households were benefiting from indoor spraying of insecticides.

4.7 ***Safe motherhood***: One in 10 districts had no health facility that could provide caesarean section. Similarly, 11 per cent of districts had no health facility that provided emergency blood transfusion.

5 Facility SAM – health infrastructure

5.1 The facility censuses were conducted in all eight districts of Mwanza region, all 10 districts in the five regions in Zanzibar, all three districts in Dar es Salaam region and in Kibaha district in Pwani region. Overall, 1040 health facilities were visited, including 236 in Zanzibar, 430 in Dar es Salaam, 319 in Mwanza and 55 in Kibaha and Korogwe districts.

5.2 ***Basic equipment***: Availability was assessed for seven items (blood pressure machine, stethoscope, thermometer, weighing scales for children under five years of age and for adults, latex gloves and refrigerator) and summarized in one score. On average, facilities in Zanzibar and Dar es Salaam had scores of at least 80 per cent, but in Mwanza the scores were more variable with a low score of 65 per cent in Kwimba district. In general, there were modest differences between public, private and NGO health facilities.

5.3 ***Infection control***: A boiling pot is the most common method of sterilization used in health facilities in many districts in Zanzibar and Mwanza. On average, 86 per cent of facilities had a stock of needles and syringes that would last at least one week. Several districts, however, had a considerably larger proportion of facilities with no such stock. Disinfectant fluids such as Lysol were available in more than 85% of facilities. There was little training activity in infection control in Zanzibar and Dar es Salaam district, but in Mwanza region training programmes appeared to be active.

5.4 ***Drug availability***: The proportion of facilities where 11 selected drugs and commodities were in stock varied considerably between districts. Antihypertensive drugs have the poorest availability, followed by measles vaccine, oral contraceptives and condoms. First-line antimalarial drugs and oral antibiotics are most widely available. In general, availability was better in public facilities than in private facilities.

5.5 ***Presence of health workers on the day of interview***: In all three regions the presence of nurses and midwives was considerably higher than that of doctors and assistant medical officers. Facilities in Dar es Salaam had the lowest rates of presence for doctors/AMOs (36 per cent) and for nurses/midwives (52 per cent), excluding hospitals. Zanzibar and Mwanza region had similar staff presence rates: about half of the doctors/AMOs were present on the day of interview and about 70 per cent of nurses and midwives.

5.6 ***Training intensity***: 18 types of course were identified for the SAM questionnaire. The five most common types of training course attended by at least one member of staff in a facility were tuberculosis DOTS (mean of all districts, 56 per cent of facilities had at least one staff trained), control of sexually transmitted infection (STI) (51 per cent), IMCI (48 per cent), family planning (45 per cent), and safe motherhood (40 per cent). The five least common types of training course were diabetes management (7 per cent), ART (8 per cent), management of health services

(8 per cent), universal precautions/infection control (14 per cent) and PMTCT (14 per cent). In both Zanzibar and Dar es Salaam, public facilities are much more likely to report that someone has attended a specific training course. In Mwanza region, however, where training intensity was much higher, the gap between the public and private sector was considerably reduced.

5.7 ***Guideline availability***: 13 types of guidelines were assessed. Zanzibar had the lowest availability of guidelines: an average of 32 per cent of the maximum of 13 guidelines were available. In Mwanza region, the availability score was 48.2 per cent of 12 guidelines.

5.8 ***Disease programmes***: The availability of basic elements to provide services for core health interventions was assessed for malaria, IMCI, safe motherhood, family planning, HIV/AIDS, tuberculosis control, STI control and noncommunicable diseases. This included the availability of trained staff, guidelines, basic equipment, drugs and commodities, and diagnostic tests.

6 Mwanza HIV prevention SAM

6.1 In addition to the health facility visits, the Mwanza SAM included three additional components focusing on HIV/AIDS. All primary and secondary schools were visited to assess the status of health interventions with special attention given to HIV prevention activities. In addition, workplaces with at least 50 employees were visited to assess the availability of HIV control programmes. Lastly, each district/council health management team was asked to identify the five locations where HIV transmission was thought to be highest, referred to as priority prevention areas (PPAs).

6.2 ***Schools***: 1029 schools were visited and interviews with the principal and key teachers were conducted. Nine out of 10 schools were primary schools. The proportion of schools indicating that they had an active HIV prevention programme was high in most districts (87 per cent). Only two districts, however, had more than 20 per cent of schools with comprehensive AIDS prevention programmes: in Magu and Ukerewe districts, 62 per cent and 57 per cent of primary schools meet the minimum standard. Both districts have been the focus of NGO interventions (TANESA and AMREF, respectively).

6.3 ***Workplaces***: It was assumed that a basic HIV prevention programme should comprise a HIV/AIDS policy, provide employees information on counselling and testing, have peer educators and educational materials for employees and condoms on-site. Two workplaces out of 40 had all five components (Mwanza City Council and Tanzania Breweries Ltd). Geita Goldmines, Nyanza Bottling Company, Ukerewe District Council, Sekou Toure Hospital and Omega Fish Ltd had four of the five prevention-programme components in place. Six employers, mostly private and including three cotton industries, did not provide any activities or commodities related to HIV prevention.

6.4 ***Priority prevention areas***: Five areas were identified by key information in each district. A minimum standard for an HIV prevention programme for such areas could include prevention sessions for the community (with recent activity), an active AIDS committee, condom outlets with 24-hour access, and STI services. Additional characteristics could include the presence of health education materials such as posters and audiovisuals, and a peer educator programme. Only one of the 40 areas met all these criteria, and seven of the 40 sites scored fairly well.

1. BACKGROUND

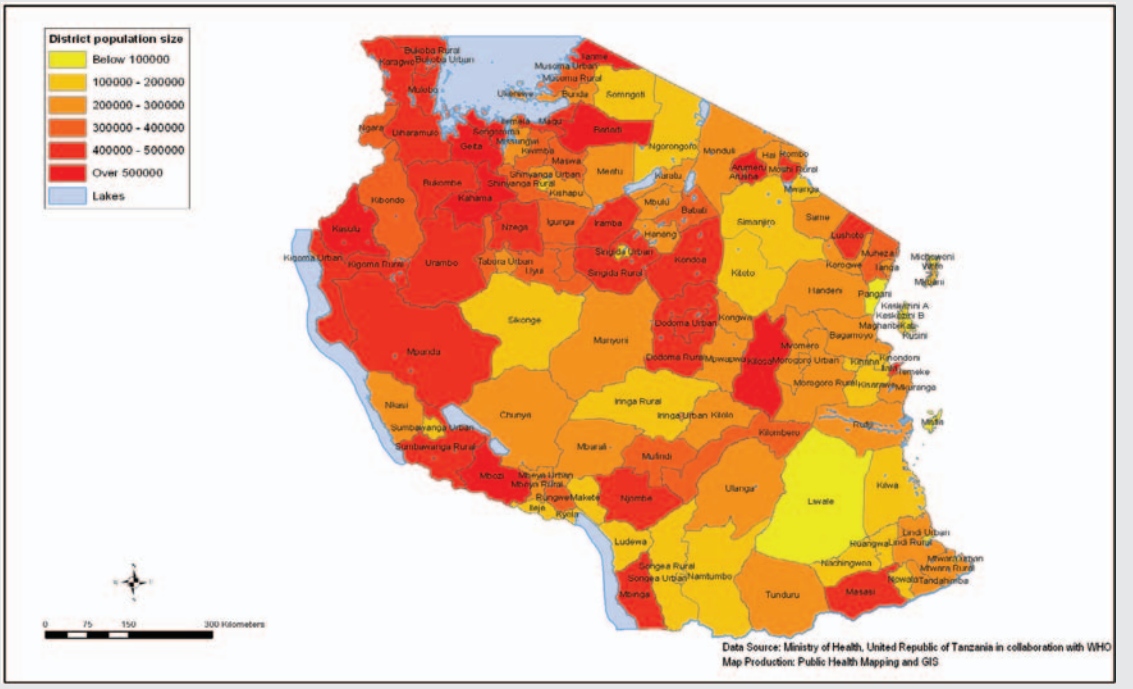
1.1 Geography and population

The United Republic of Tanzania includes the mainland and the two islands of Unguja and Pemba (also called the Zanzibar islands). The United Republic of Tanzania is one of the largest countries in Africa, with a surface area of 945 087 km^2. The terrain and climate of the country vary from tropical along the coast to temperate in northern and southern highlands. The tropical areas have an average annual rainfall of between 500 and 1000 mm. The climate in the central plateau region is hot and dry.

According to the national census of 2002, the population of the United Republic of Tanzania numbered about 34.5 million people. The annual population growth rate is 2.9 per cent. The population is unevenly dispersed throughout the country, with the population density varying from 1785 per km^2 in Dar es Salaam to 12 per km^2 in Lindi region. Figure 1 shows the districts with population sizes. Most of the population lives in rural areas, with more than 80 per cent of people working in agriculture. The country relies heavily on agriculture, which generates an estimated 60 per cent of the gross domestic product (GDP). About 25 per cent of the country is composed of national parks, game and forest reserves.

Administratively, the United Republic of Tanzania is divided into 21 regions on the mainland and five regions in Zanzibar. In early 2006, there were 129 districts, including 10 in Zanzibar.

FIGURE 1 POPULATION OF THE UNITED REPUBLIC OF TANZANIA BY DISTRICT, 2006



1.2 Health services

Availability of health services in mainland Tanzania

Health facilities in mainland Tanzania are concentrated in rural areas as this is where most people live. The health-care delivery system in mainland Tanzania has been marked by reform and improvement. There has been an expansion of health services to the rural areas facilitating greater access by the rural population. By 1980, it was estimated that about 45 per cent of the population lived within 1 km of a health facility, 72 per cent within 5 km and 93 per cent within 10 km. Recently, no national estimates of population access to health services have been made, although in several surveys some information has been collected on either travel time or distance to the nearest facility. For many years, there has been a continuous increase in the number of health facilities in the country. Most of the population is believed to live within 5 km from a health facility; however, there are still geographical inequalities in access to health services.

Mainland Tanzania offers health services at several levels within the country. These include referral hospitals, specialized hospitals, regional hospitals, district hospitals, health centres, and dispensaries. The lowest level of care is offered by dispensaries, each of which serves between 6000 and 10 000 people. The health centre is the second highest level of care and caters for approximately 50 000 people within one administrative division. At a level above the health centres are district hospitals. The district level has a vital role in the provision of health services. The regional hospitals provide similar services to district hospitals but employ additional specialists who are not available at district level.

The highest level of health care in the country can be found at referral and specialized hospitals. There are four referral and four specialized hospitals in the country. Two of these hospitals are owned and operated by faith-based organizations, the remaining are owned by the government.

According to the United Republic of Tanzania's Ministry of Health and Social Welfare statistical report for 2005, there are 4679 dispensaries, of which the government owns 3038. There are 219 hospitals of which 87 are owned by the government. Also, there are an estimated 331 government-owned health centres in the country. The remaining health facilities in the country are owned by faith-based organizations, the private sector and parastatal organizations. Table 1 provides information about health facilities by type, region and ownership in mainland Tanzania, according to the health ministry database.

Table 1 Distribution of health facilities by type, region and ownership, 2004/2005

Region	Hospitals					Health centres				
	Government	Voluntary	Parastatal	Private	Total	Government	Voluntary	Parastatal	Private	Total
Arusha	3	7	1	1	12	16	5	2	6	29
Coast	5	1	1	0	7	15	1	0	1	17
Dar es Salaam	4	2	2	19	27	5	7	2	9	23
Dodoma	5	2	0	0	7	18	2	0	1	21
Iringa	5	6	0	4	15	19	14	1	0	34
Kagera	2	10	0	1	13	17	11	0	2	30
Kigoma	3	2	0	0	5	13	4	1	0	18
Kilimanjaro	5	9	1	3	18	21	4	1	6	32
Lindi	5	3	1	0	9	13	1	0	1	15
Manyara	4	2	0	0	6	4	7	0	0	11
Mara	3	4	0	0	7	13	4	0	3	20
Mbeya	6	8	0	2	16	20	7	0	1	28
Morogoro	5	4	1	2	12	21	5	3	2	31
Mtwara	4	1	0	0	5	12	2	0	0	14
Mwanza	6	6	0	1	13	32	3	0	4	39
Rukwa	2	1	0	0	3	20	8	0	0	28
Ruvuma	3	5	0	0	8	8	3	0	0	11
Shinyanga	5	1	1	1	8	23	2	0	1	26
Singida	3	6	0	0	9	11	2	0	1	14
Tabora	4	3	0	0	7	12	2	0	1	15
Tanga	5	4	0	3	12	18	7	0	0	25
Total	87	87	8	37	219	331	101	10	39	481

Region	Dispensaries					All health facilities				
	Government	Voluntary	Parastatal	Private	Total	Government	Voluntary	Parastatal	Private	Total
Arusha	89	60	7	40	196	108	72	10	47	237
Coast	128	28	10	16	182	148	30	11	17	206
Dar es Salaam	71	28	11	230	340	80	38	15	258	390
Dodoma	185	28	12	15	240	208	32	12	16	268
Iringa	190	70	5	17	282	214	90	6	21	331
Kagera	142	99	4	10	255	161	120	4	13	298
Kigoma	164	17	7	8	196	180	23	8	8	219
Kilimanjaro	149	63	7	113	332	175	76	9	122	382
Lindi	135	6	7	6	154	153	10	8	7	178
Manyara	75	36	1	11	123	83	45	1	11	140
Mara	131	25	9	23	188	147	33	9	26	215
Mbeya	227	40	7	33	307	253	55	7	36	351

Region	Dispensaries					All health facilities				
	Govern-ment	Volun-tary	Para-statal	Private	Total	Govern-ment	Volun-tary	Para-statal	Private	Total
Morogoro	159	49	13	28	249	185	58	17	32	292
Mtwara	128	12	1	11	152	144	15	1	11	171
Mwanza	243	25	16	52	336	281	34	16	57	388
Rukwa	156	11	0	17	184	178	20	0	17	215
Ruvuma	127	31	3	13	174	138	39	3	13	193
Shinyanga	108	52	23	33	216	136	55	24	35	250
Singida	89	38	0	8	135	103	46	0	9	158
Tabora	156	22	2	27	207	172	27	2	28	229
Tanga	186	23	0	22	231	209	34	0	25	268
Total	3038	763	145	733	4679	3456	952	163	809	5379

From Ministry of Health and Social Welfare statistics (2006).

The country uses a pyramidal referral system from dispensaries up to the referral hospitals. Some patients are sent abroad for treatment of diseases and health conditions that is not offered in the country, depending on their foreign exchange position.

It is estimated that about 65 000 health-care workers are employed in the health sector, according to Health Statistical Abstract report of 2006[1] the government is the main employer of health-care workers. Through special agreements, some government employees are seconded to health facilities run by faith-based organizations. The majority of health staff, about 74 per cent, work in government-run health facilities, while 22 per cent work in facilities run by faith-based organizations. About 3 per cent of the health-sector workforce is employed by private facilities and 1 per cent by parastatal-owned facilities. This pattern applies to all cadres of health workers.

According to Public Expenditure reports from financial year 1999/2000 until 2004/2005 there has been a steady increase in the share of the budget allocated to the health sector. The share was highest in 2001/2002 when it was 11 per cent. There was a drop in the health sector's share during the financial years 2002/2003 and 2003/2004 such that by 2003/2004 the share had dropped to 9.7 per cent. However, there seems to be an increase to 10.1 per cent in the financial year 2004/2005. This is encouraging, although it should be noted that the share still falls short of that achieved in earlier years and also of the 15 per cent of the national budget spending on health target (also known as Abuja target).

Mainland Tanzania health system[2]

The national health system is based on decentralized services to local government authorities in line with the principle of 'decentralization by devolution'. The Ministry of Health and Social Welfare and the Prime Minister's Office, Regional Administration and Local Government (PMO-RALG) are jointly responsible for the delivery of public health services. The central Ministry of Health and Social Welfare is responsible for policy formulation and the development of guidelines to facilitate policy implementation. The Office of the Regional Administrative Secretary, under

[1] *Annual Health Statistical Abstract*. Dar es Salaam, Ministry of Health and Social Welfare, 2006.

[2] A brief description of the health systems in Zanzibar is provided in a separate section with the results of facility SAM 2006 (Section 6).

PMO-RALG, interprets these policies and monitors their implementation in the districts they supervise using regional health management teams. The council health management team is responsible for council health services including dispensaries, health centres and district hospitals. The district medical officer heads the council health management team as in charge of all district health services. The district medical officer is answerable to the local government authority. The council health management team follows guidelines for planning and management of district health issued jointly by Ministry of Health and Social Welfare and PMO-RALG. The district medical officer is accountable to the council director on administrative and managerial matters, and responsible to the regional medical officer on technical matters. The regional medical officer heads the Regional Health Management Team (RHMT) and reports through the regional administrative secretary to the Ministry of Health and Social Welfare on issues related to technical management and to PMO-RALG through the regional administration secretary on issues related to health administration and management of health services.

A strategy of public–private partnerships has enhanced the policy of service liberalization. Faith-based organizations and the for-profit private sector are part of the health-service delivery system. The government has supported the work of voluntary agencies through substantial subsidies. It is estimated that voluntary agencies run about 40 per cent of all health facilities and provide 40 per cent of hospital beds. The private organizations also provide care in health centres and dispensaries, although to a lesser extent. Since the government re-legalized private medical practice in 1991, the non-subsidized private sector has grown considerably, predominantly in the urban areas.

1.3 Monitoring service availability

Strengthening national health information systems was identified as a priority in the World Health Organization (WHO) African Region at the 54th session of the Regional Committee (Resolution AFR/54/R3). In many countries, the most basic information on health services is often incomplete. A key strategy of health programmes is to make essential health services accessible to all individuals and communities. Access has a range of dimensions, but the initial gateway is availability: only if services are available, will issues related to access, coverage and utilization be addressed. In order to determine availability, services must be monitored. Several tools provide information on access, use and quality of services; these include household surveys, clinic-based statistics, administrative databases and facility surveys, based on a sample of facilities.

The national health information system of the health ministry collects data on health resources from all districts through the regions and the results are compiled in annual reports.[3] Additional information is obtained from national and subnational facility surveys. Surveys of samples of health facilities (usually 300–500) have been conducted in 1992, 1996, 1999 and 2006. The 2006 Service Provision Assessment (report not yet available) also aimed to assess aspects of quality via data obtained through exit surveys and provider–client observation. In several instances, efforts were made to link the service data to population-based statistics on service utilization, obtained in a national household survey.

The aim of service availability mapping (SAM) is to build upon and complement existing data collection efforts by systematically collecting information on the availability of health resources and interventions at the subnational level, with a focus on districts and regions or provinces. There are two levels of data collection. The first level involves a visit to all districts and interviews

[3] *Annual Health Statistical Abstract*. Dar es Salaam, Ministry of Health and Social Welfare, 2006.

with council health management teams. The interview addresses general issues like presence of specific programmes or services at the district level, and gathers data on infrastructure and the health workforce. A rapid survey of districts is particularly useful to assess the availability of new and expanding services, such as antiretroviral drugs or social marketing of insecticide-treated bednets.

A more detailed picture of service availability in a district can be obtained by applying the second level of SAM: a facility census. Ideally, SAM consists of a full facility census which helps the country develop a comprehensive database of public and private health facilities. The initial SAM exercises, however, focused on collecting data from districts and validating that information with a facility census in selected districts. In addition, all major urban districts were subjected to a facility census as the council health management team was often not able to provide complete information.

The collection of geographical information is part and parcel of SAM. SAM has been developed based on WHO work with countries using Health Mapper. This software package was originally developed to monitor and respond to tropical diseases. SAM builds on the premise that the national and subnational health system needs comprehensive information on health risks—such as disease outbreaks and risk factors for outbreaks (e.g. presence of vectors)—and health resources. The aim is for every district to have a complete database of public and private health facilities with global positioning system (GPS) coordinates, so that the facilities can easily be mapped and linked to disease outbreaks and risks.

2. METHODS

The aims of this project were to complement existing information on health services and provide the United Republic of Tanzania with information on the distribution of facilities, human resources, and basic health services. The objectives of Tanzania SAM 2006 were to:

- Provide national planners and decision-makers with information on the distribution of services within the country, with a focus on the district level;
- Provide baseline monitoring information for the scale-up of the provision of key services such as antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of human immunodeficiency virus (HIV) and testing and counselling for HIV/AIDS; and
- Assess how the SAM of facilities can support planning and monitoring of health services at national, regional and district levels.

The Tanzania SAM had several components, including district- and facility-level data collection. This included an extensive SAM of facilities in Mwanza region during September–October 2005. This was followed by a national survey of all districts in the United Republic of Tanzania during late 2005 and early 2006, and SAM of facilities in all districts of Dar es Salaam, Zanzibar, and the district of Kibaha in Pwani.

Technical assistance was provided by WHO Department of Measurement and Health Information Systems, the WHO Regional Office for Africa Division of Health Systems, the WHO Country Office, and the MEASURE Evaluation project. Funding was provided by President's Emergency Plan for AIDS Relief (PEPFAR) of the government of the United States of America (USA) and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

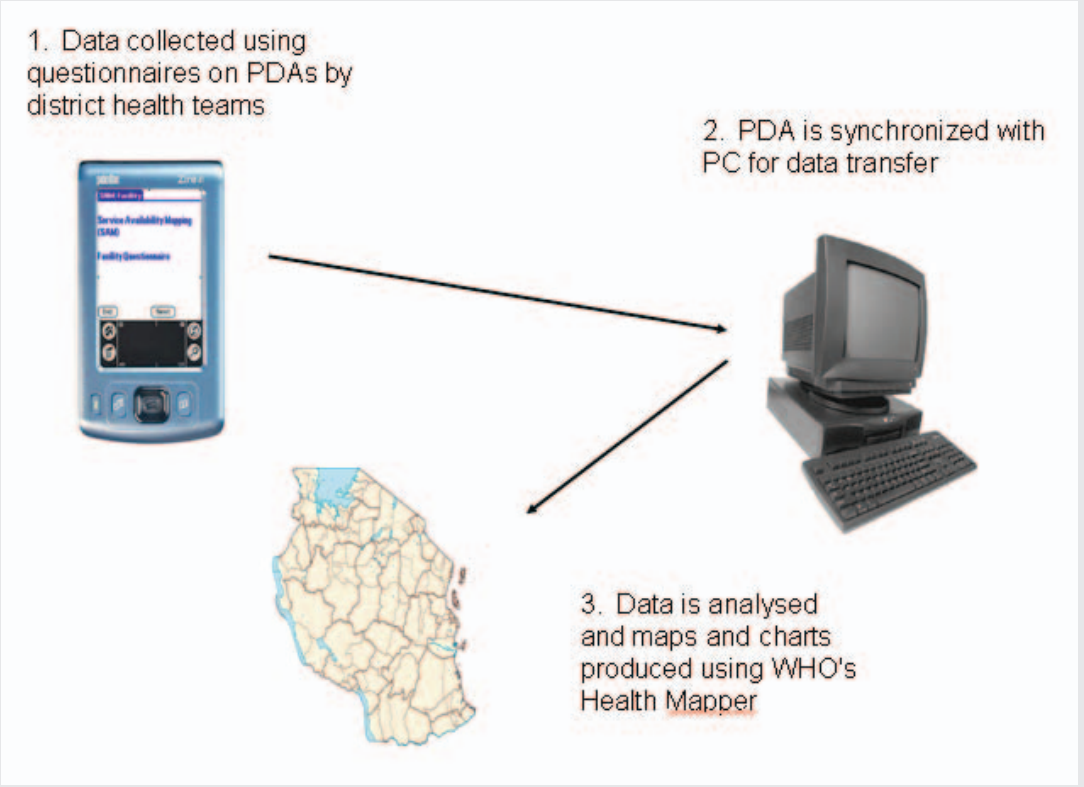
Two questionnaires, one for district medical officers and their teams and one for health facilities, were programmed in a personal digital assistant (PDA) equipped with Pendragon software, and information was collected on the availability of infrastructure, human resources, infrastructure and services. Figure 2 summarizes the steps involved. The PDA data were downloaded to a computer using WHO Health Mapper software. The latter was also used to produce maps and export data to Excel for data editing and to statistical software (Stata version 9.0) for the analyses presented in this report.

2.1 Mwanza SAM

In 2005, the nongovernmental organization (NGO) Tanzania Essential Strategies against AIDS (TANESA) and the Mwanza Centre of the National Institute for Medical Research (NIMR), in collaboration with WHO and MEASURE Evaluation, worked with the regional medical office and teams for the eight districts in Mwanza region to conducted a comprehensive facility SAM. The Mwanza region SAM had several components. First, all public and private health facilities were visited to assess health resources and service availability. Second, all primary and secondary schools were visited to assess the status of basic health services and AIDS-related education. Third, interviews were conducted at all workplaces with at least 50 employees to collect information on the availability of prevention and treatment programmes. And fourth, each district was asked to identify the five areas in which the transmission of HIV was thought to be highest, based on a brief list of criteria such as geographical concentration of bars and guest houses, increased economic activity (e.g. trading centre, markets, fishing village), and high mobility of the population. In each district, the top five areas with the highest transmission of HIV were visited to assess the availability of a set of preventive HIV/AIDS activities.

The assessment started with a two-day workshop with the regional health authorities to discuss the SAM and adapt the instruments to the local situation as needed. This was followed by a one-week training course for the district teams. The fieldwork was conducted by district teams with facilitators from TANESA and NIMR during September–October 2005. The staff participating in the SAM are listed in Annex A.

FIGURE 2 DATA PROCESSING PROCEDURE



PC: personal computer; PDA: personal digital assistant.

2.2 Survey of districts

The national district SAM was implemented by the health ministry and included visits to all except one of the 129 districts in the United Republic of Tanzania between November 2005 and January 2006. A national training course was conducted before the start of the fieldwork. The interviewer teams consisted of national, regional and district staff from the Ministry of Health and Social Welfare. The teams were provided with lists of health facilities for updating during the SAM.

The questionnaire was based on the standard list of questions that had been used in district SAM in Kenya, Uganda, and Zambia. Local adaptations were made as necessary, e.g. on first- and second-line antimalarial drugs. In addition to a number of general questions on the basic availability of service components—human resources, equipment, drugs and commodities, guidelines—the district team was asked specific questions for each facility listed by name on the availability of specific services including ART, PMTCT, caesarean section, emergency blood transfusion and diagnosis of tuberculosis.

2.3 Facility census

The third component included complete facility censuses in all 10 districts of Zanzibar, all three districts of the Dar es Salaam region, and in two rural districts: Kibaha and Korogwe. Zanzibar was selected at the request of the Ministry of Health and Social Welfare, Zanzibar. The fieldwork in Korogwe was not completed and the data are not included in this report. Dar es Salaam region is almost entirely urbanized and district interviews are less appropriate in such circumstances. Fieldwork was conducted during November–December 2005 and January 2006.

Including the Mwanza facility census in eight districts, data from 23 of the 128 districts participating in the SAM allowed for a full comparison of the results of the district interviews and facility census.

2.4 Population data

Population size by district and region was based on projections of the results of the 2002 census, taking into account population growth in the preceding decade, migration patterns and other relevant factors. The data were provided by the National Bureau of Statistics Office. The total population figures are shown in Chapter 3 (Table 3.1) and in Annex B. The projected population in 2006 is used a denominator for all analyses, although the SAM was conducted between late 2005 and early 2006.

3. HEALTH INFRASTRUCTURE

3.1 Health facilities

The teams that visited the districts were provided with a list of health facilities from the ministry database. These lists were updated with the council health management team during the interview. Data from the council health management team interviews were compared with the results of the facility SAM for the 13 districts in mainland Tanzania and all districts in Zanzibar, and edits were made if necessary. Details of the comparisons made are described in Annex C.

Table 3.1 presents the number of health facilities by type of ownership and region. Overall, 5795 health facilities were reported by the districts. The majority were public facilities (3856 or 67 per cent), followed by NGO (16 per cent of all facilities). The category 'Other' include mainly health facilities associated with parastatal companies. Private ownership was reported for 14 per cent of all facilities. These proportions were much higher in Dar es Salaam and Unguja Town regions, where about half of the providers were private (48 per cent and 56 per cent, respectively). Arusha, Kilimanjaro, Mwanza and Shinyanga regions also had relatively more private facilities than the national average. In 11 regions the private sector was still smaller than 10 per cent of the total share. Annex Table D.1 shows the number of health facilities by district.

Data from the facility listings indicated that 85 per cent of all facilities were dispensaries or primary care facilities, 9 per cent were health centres and the remainder included different types of hospitals.

The Health Statistics Abstracts 1995,[4] 2001[5] and 2006[6] (with statistics for 2004/2005) provide an opportunity to assess long-term trends in the number of health facilities for mainland Tanzania. The total number of facilities increased from 3790 in 1995 to 5552 in 2006 (Table 3.2). The growth in the number of facilities kept up with population growth and the density increased from 1.3 to 1.5 facilities per 10 000 population.

The proportion of facilities that are private more than doubled from 6 per cent in 1995 to 13 per cent in 2006, but was almost 20 per cent in 2001. A more detailed comparison between 2001 and 2006 indicated that the number of facilities increased in all regions with the exception of Dar es Salaam, where there was a decrease of 100 in the number of facilities reported in 2006. The reason for this discrepancy was that in 2001 there were 414 private facilities, compared with only 210 in 2006. It is likely that the number of facilities in 2006 was substantially underestimated in Dar es Salaam. Also, in several mainland regions the comparison with 2001 suggests that the proportion of facilities that are privately owned was underreported in the SAM 2006, although not as severely as in the Dar es Salaam region.

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[4] *Health Statistics Abstract 1995*. Dar es Salaam, Health Information System Unit, Planning Department, Ministry of Health, 1995.

[5] *Health Statistics Abstract 2002*. Dar es Salaam, Health Information and Research Section, Policy and Planning Department, Ministry of Health and Social Welfare, 2002.

[6] *Health Statistical Abstract 2006*. Dar es Salaam, Health Information and Research Section, Policy and Planning Department, Ministry of Health and Social Welfare, 2006.

Table 3.1 Health facilities in the United Republic of Tanzania, by type of ownership and region

Region	Population	Number of facilities					Facilities per 10 000 population	Privately owned (%)
		Public	NGO	Private	Other	Total		
Mainland	*36 994 959*	*3696*	*931*	*739*	*186*	*5552*	*1.50*	*13*
Arusha	1 475 489	111	65	55	14	245	1.66	22
Dar es Salaam	2 801 675	102	113	205	10	430	1.53	48
Dodoma	1 896 786	222	31	15	7	275	1.45	5
Iringa	1 617 695	234	90	18	8	350	2.16	5
Kagera	2 210 217	178	44	13	8	243	1.10	5
Kigoma	1 535 699	186	23	11	9	229	1.49	5
Kilimanjaro	1 526 393	176	96	75	13	360	2.36	21
Lindi	851 764	155	15	5	1	176	2.07	3
Manyara	1 198 052	90	29	21	12	152	1.27	14
Mara	1 572 068	150	32	27	10	219	1.39	12
Mbeya	2 346 389	240	53	32	8	333	1.42	10
Morogoro	1 929 087	180	31	31	14	256	1.33	12
Mtwara	1 220 248	146	18	10	3	177	1.45	6
Mwanza	3 168 904	274	31	66	2	373	1.18	18
Pwani	968 637	168	33	28	9	238	2.46	12
Rukwa	1 302 278	182	27	9	0	218	1.67	4
Ruvuma	1 235 160	170	36	10	0	216	1.75	5
Shinyanga	3 277 785	223	25	56	3	307	0.94	18
Singida	1 222 809	122	33	9	4	168	1.37	5
Tabora	1 986 747	188	79	14	23	304	1.53	5
Tanga	1 651 077	199	27	29	28	283	1.71	10
Zanzibar	*1 117 955*	*160*	*10*	*71*	*2*	*243*	2.17	29
Pemba North	216 174	36	0	4	0	40	1.85	10
Pemba South	207 348	35	1	7	0	43	2.07	16
Unguja North	155 250	22	1	4	0	27	1.74	15
Unguja South	103 191	34	1	3	0	38	3.68	8
Unguja Town	435 992	33	7	53	2	95	2.18	56
Total	38 112 914	3856	941	810	188	5795	1.52	14

From The United Republic of Tanzania SAM 2006.
NGO: nongovernmental organization.

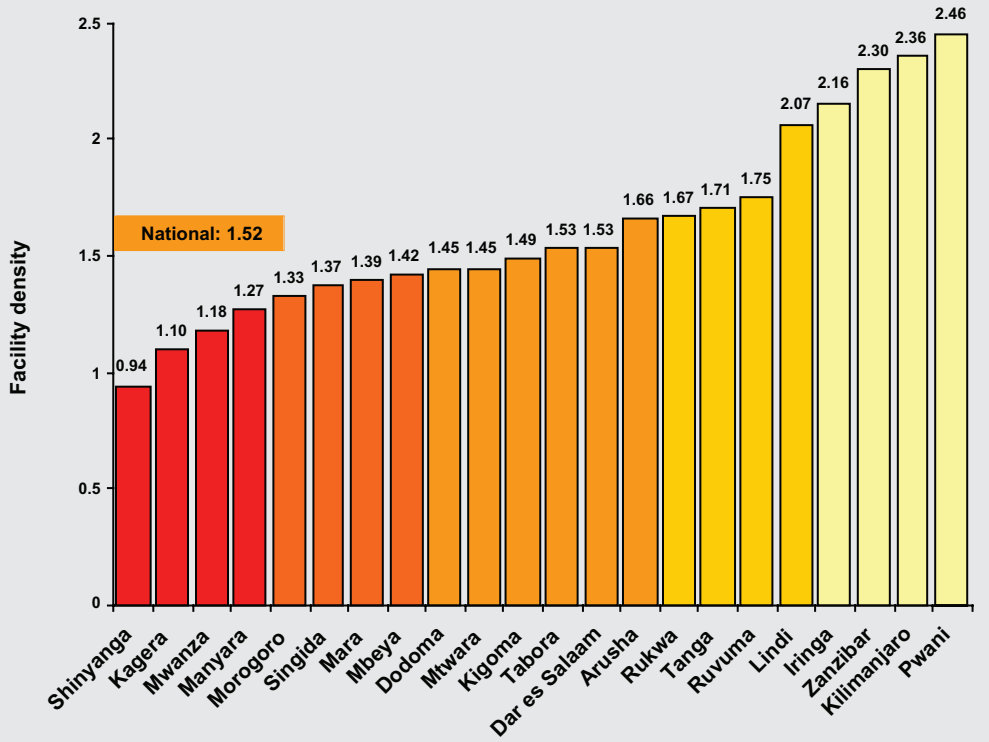
Table 3.2 Number of health facilities in mainland Tanzania, by ownership

	Public	NGO	Private	Other	Total
1995	3568		222	—	3790
2001	3060	748	977	205	4990
2005	3456	952	809	163	5379
2006	3696	931	739	186	5552

From 1995, 2001 and 2005 Ministry of Health and Social Welfare and 2006 SAM.

Figure 3.1 shows the variation in the density of health facilities per 10 000 population by region. Values for the five regions of Zanzibar were combined in order to reduce density-rate variation caused by small district population sizes and to obtain a population size that was comparable to those of the mainland regions. Data for the five regions and 10 districts in Zanzibar are shown in the Annex D.1. It is noted that the type of facility was not taken into account and that differences in the size of facilities (hospitals, health centres and dispensaries) may explain some of the differences between regions. Overall, there are 1.52 health facilities per 10 000 people, ranging from a low of 0.93 in Shinyanga to 2.41 in Pwani (Coast) region. Three regions in the lake zone—Shinyanga, Kagera and Mwanza—have the lowest densities. The Lake zone is also the most populated zone in the United Republic of Tanzania.

FIGURE 3.1 HEALTH FACILITIES PER 10 000 POPULATION, BY MAINLAND REGION AND IN ZANZIBAR,[a] TANZANIA SAM 2006

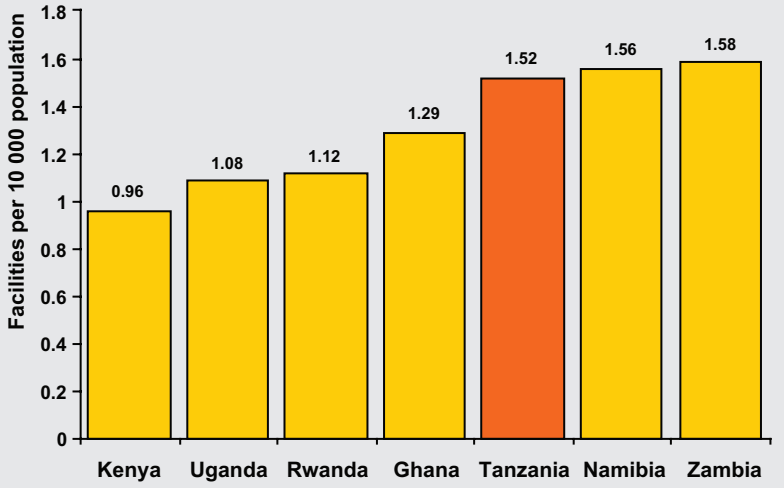


[a] Values for the five regions of Zanzibar are combined.

Figure 3.2 compares the health facility density in the United Republic of Tanzania with six countries in sub-Saharan Africa for which similar data are available. The data sources are Service Availability Mapping surveys of districts for Uganda (2004), Rwanda (2004) and Kenya

(2004)[7] and health ministry reports for Namibia[8] and Ghana.[9] The number of health facilities per 10 000 population in the United Republic of Tanzania is comparable to that in Namibia and Zambia, these countries also having about 1.5 facilities per 10 000 people. The density of facilities in Ghana, Kenya, Rwanda and Uganda appeared to be lower. These figures must be interpreted carefully as the extent to which the number of private facilities has been counted in each assessment may vary.

FIGURE 3.2 NUMBER OF HEALTH FACILITIES PER 10 000 POPULATION FOR SELECTED COUNTRIES IN SUB-SAHARAN AFRICA, 2002–2006



3.2 Inpatient beds

All districts were asked to provide the number of inpatient beds in the health facilities by type of ownership (public, private, NGO and parastatal/other). In addition, information was collected about the number of delivery and maternity beds in the district.

Table 3.3 presents the number of inpatient, maternity and delivery beds by type of ownership of the health facility and by region, as reported by the districts within each region. Annex D (Table D.2) shows the results by district. The reports indicated that the United Republic of Tanzania has more than 42 000 inpatient beds, including nearly 6000 maternity beds. In addition, there are more than 4000 delivery beds. The numbers of maternity and delivery beds appear small if one considers that there were likely to have been well over 1 million births in the United Republic of Tanzania in 2006. According to the Demographic and Health Survey (DHS) 2004, 47 per cent of deliveries took place in health facilities, mostly in public-sector (38 per cent) or NGO (3 per cent) facilities.[10] This could imply that as many as 400 000 deliveries took place in health facilities, and that 4000 delivery beds are obviously barely adequate to cater for so many women.

[7] All three reports are available at http://www.who.int/healthinfo/systems/samdocs/en/index.html.

[8] *Essential indicator report 2001–2002*. Windhoek, Directorate: Policy, Planning and HRD. Management information and research, Ministry of Health and Social Services, 2003.

[9] *Fact & Figures*. Accra, Policy Planning Monitoring and Evaluation, Ghana Health Service, 2005.

[10] *Tanzania Demographic and Health Survey 2004–2005*. Dar es Salaam, National Bureau of Statistics and ORCMacro, 2005.

Table 3.3 Inpatient, maternity and delivery beds in the United Republic of Tanzania, by region, Tanzania SAM 2006

Region	Population	Number of beds					Beds per 10 000 population	Private (%)
		Public	Private	Maternity	Delivery	Total		
Mainland	*36 994 959*	*32 405*	*2488*	*5824*	*4222*	*40 717*	*11.0*	*7*
Arusha	1 475 489	963	80	204	92	1247	8.5	8
Dar es Salaam	2 801 675	3074	772	464	464	4310	15.4	20
Dodoma	1 896 786	1680	45	281	218	2006	10.6	3
Iringa	1 617 695	1843	92	532	359	2467	15.3	5
Kagera	2 210 217	2298	133	406	293	2837	12.8	5
Kigoma	1 535 699	1188	0	0	0	1188	7.7	0
Kilimanjaro	1 526 393	1426	74	385	183	1885	12.3	5
Lindi	851 764	1042	6	396	168	1444	17.0	1
Manyara	1 198 052	1229	154	205	130	1588	13.3	11
Mara	1 572 068	1165	75	280	188	1520	9.7	6
Mbeya	2 346 389	1811	94	257	151	2162	9.2	5
Morogoro	1 929 087	1793	0	337	207	2130	11.0	0
Mtwara	1 220 248	1363	59	347	188	1769	14.5	4
Mwanza	3 168 904	3239	339	461	805	4039	12.7	9
Pwani	968 637	724	54	230	155	1008	10.4	7
Rukwa	1 302 278	706	0	206	155	912	7.0	0
Ruvuma	1 235 160	1262	0	474	266	1736	14.1	0
Shinyanga	3 277 785	1247	344	0	0	1591	4.9	22
Singida	1 222 809	1557	16	0	0	1573	12.9	1
Tabora	1 986 747	1206	82	0	0	1288	6.5	6
Tanga	1 651 077	1589	69	359	200	2017	12.2	4
Zanzibar	*1 117 955*	*1012*	*0*	*39*	*39*	*1051*	*9.4*	*0*
Pemba North	216 174	124	0	5	5	129	6.0	0
Pemba South	207 348	204	0	11	11	215	10.4	0
Unguja North	155 250	15	0	2	2	17	1.1	0
Unguja South	103 191	18	0	3	3	21	2.0	0
Unguja Town	435 992	651	0	18	18	669	15.3	0
Total	**38 112 914**	**33 417**	**2488**	**5863**	**4261**	**42 819**	**11.2**	**7**

Only for inpatient beds was it asked whether ownership was public–private. Only one in 14 beds (7 per cent) were in private health facilities, which is about the same as the proportion of health facilities that are privately owned. In Dar es Salaam, one fifth of beds were privately owned. Also, Shinyanga has a high proportion of private beds, presumably owing to presence of the mining industry. In Zanzibar, no private beds were reported.

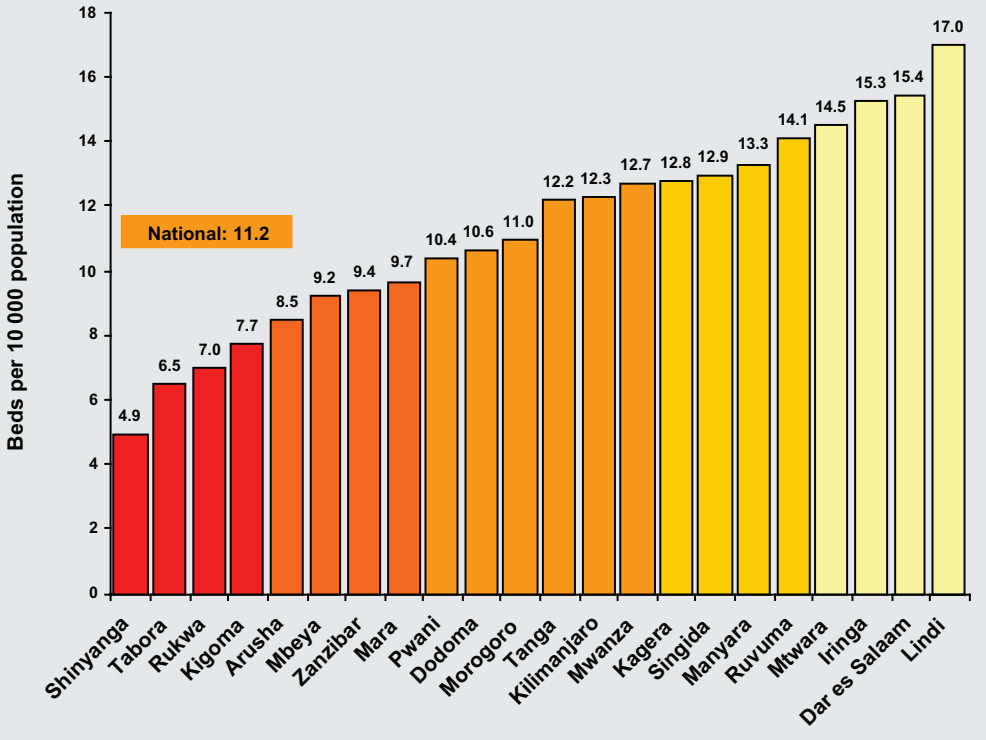
The comparison of the results of the SAM 2006 with the situation in mainland Tanzania in 1995[11] and 2001[12] shows that the total number of beds increased from 31 000 in 1995 to 38 000 in 2001, and to nearly 41 000 in 2006. The 2004/2005 data are not shown as the count appeared to be incomplete, with considerably fewer than 30 000 beds being reported. The growth in the number of beds kept pace with population growth: the densities were 10.5 and 11.2 beds per 10 000 population in 1995 and 2006, respectively. The analysis by region (not shown) for 2001–2006 indicates a mixed picture: in some regions the number of beds decreased, in others there was an increase. In 1995, there were almost no private hospital beds. The proportion of beds that are private almost doubled from 3.6 per cent in 2001 to 6.9 per cent in 2006.

Table 3.4 Number of health facility beds in mainland Tanzania, by ownership, Tanzania SAM 2006

	Public	NGO	Private	Other	Total
1995	31 526		110	—	31 636
2001	21 648	14 617	1 385	1 113	38 763
SAM	38 229	—	2 488	—	40 717

From 1995, 2001 and 2005 Ministry of Health and Social Welfare and SAM 2006.
—: no data.

FIGURE 3.3 NUMBER OF HEALTH FACILITY BEDS PER 10 000 POPULATION, BY MAINLAND REGION AND IN ZANZIBAR, TANZANIA SAM 2006

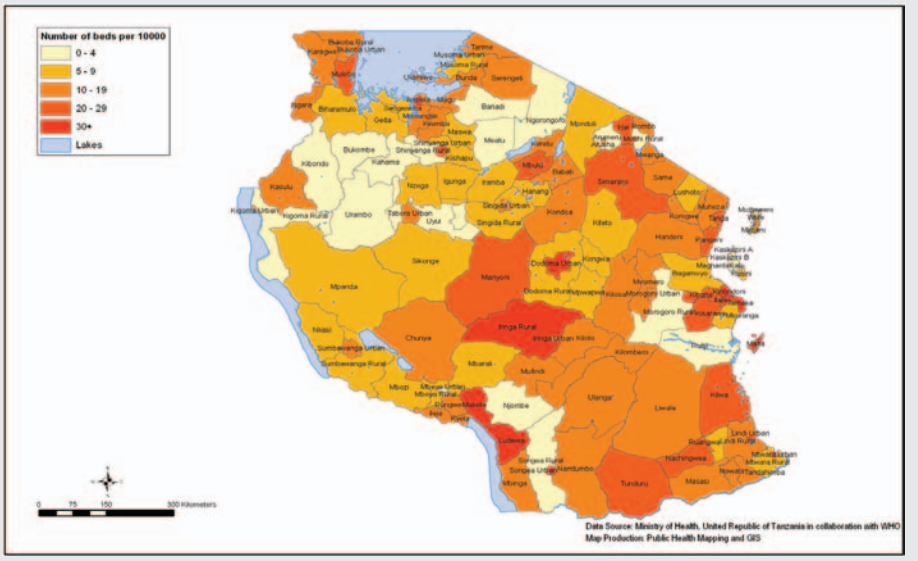


[11] *Health Statistics Abstract 1995*. Dar es Salaam, Health Information System Unit, Planning Department, Ministry of Health, 1995.

[12] *Health Statistics Abstract 2002*. Dar es Salaam, Health Information and Research Section, Policy and Planning Department, Ministry of Health. 2002.

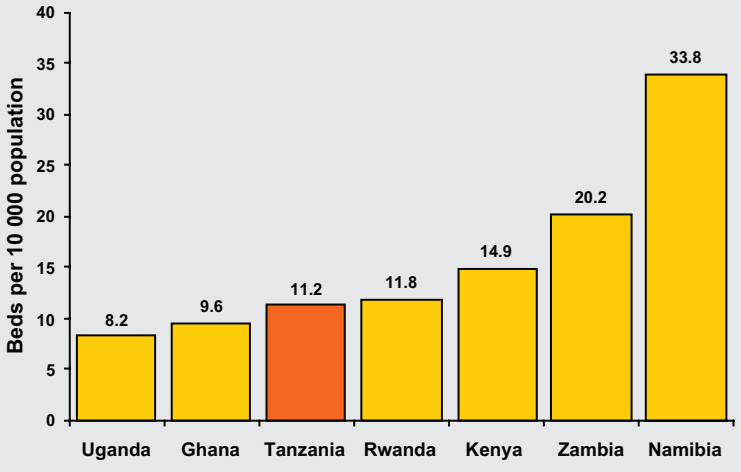
There are threefold differences in the density of health facility beds between regions (Figure 3.3). At the lower end, Shinyanga region has only 4.9 beds per 10 000 population, at the higher end, Dar es Salaam and Lindi regions have more than 15 beds per 10 000 population. A more detailed picture is presented in Figure 3.4 for the district level. There is considerable variation in the density of hospitals beds by district, which can be distorted by referral hospitals and other large facilities in urban areas.

FIGURE 3.4 NUMBER OF HEALTH-FACILITY INPATIENT BEDS PER 10 000 POPULATION BY DISTRICT, TANZANIA SAM 2006



As for the analysis for health facilities, the results for the United Republic of Tanzania are compared with those for other countries in sub-Saharan Africa (Figure 3.5). Among the seven countries considered, the United Republic of Tanzania takes the fifth position in terms of density of inpatient beds. The density of health facility beds in the United Republic of Tanzania is closest to that of Rwanda and Ghana. Kenya and Zambia have larger numbers of beds per 10 000 population, while the figure for Namibia is almost three times higher than for the United Republic of Tanzania.

FIGURE 3.5 NUMBER OF INPATIENT (AND MATERNITY) BEDS PER 10 000 POPULATION IN SELECTED COUNTRIES IN SUB-SAHARAN AFRICA, 2002–2006

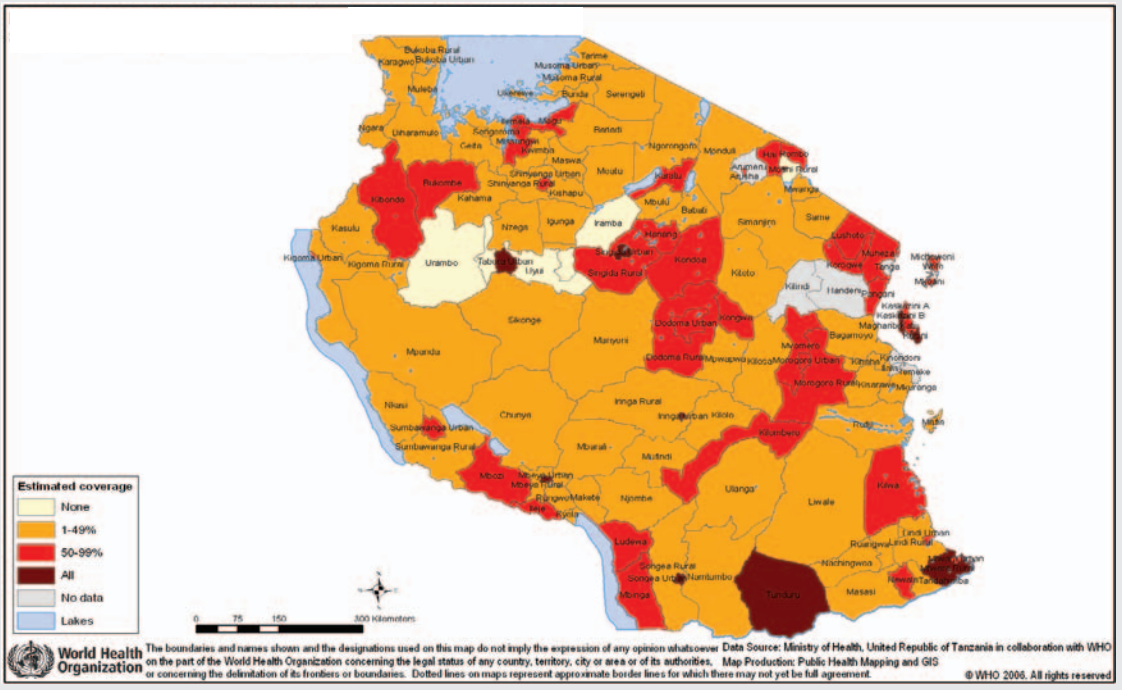


3.3 Water supply

All districts were asked to estimate the proportion of health facilities that had a water supply from an improved source, defined as piped water, protected spring or well, rain water or tanker truck. There were four options: all, more than 50 per cent, less than 50 per cent and none. Overall, 11 districts (9 per cent) responded that all health facilities had access to improved water supplies. Another 43 districts (35 per cent) indicated that more than half of the facilities had safe water supplies. The majority of districts reported that less than half of the facilities had access to safe water (52 per cent). Four districts (3 per cent) reported no access: Moshi Rural, Iramba, Uyui and Urambo districts. Figure 3.6 shows the situation in all districts.

Access to safe water supplies is considerably lower in the United Republic of Tanzania than was reported in neighbouring Zambia during the 2004 SAM. In Zambia, 39 per cent and 28 per cent of districts reported that all and more than 50 per cent of facilities, respectively, had access to a piped water supply.

FIGURE 3.6 ESTIMATED PERCENTAGE OF HEALTH FACILITIES WITH ACCESS TO WATER FROM AN IMPROVED WATER SOURCE, TANZANIA SAM 2006



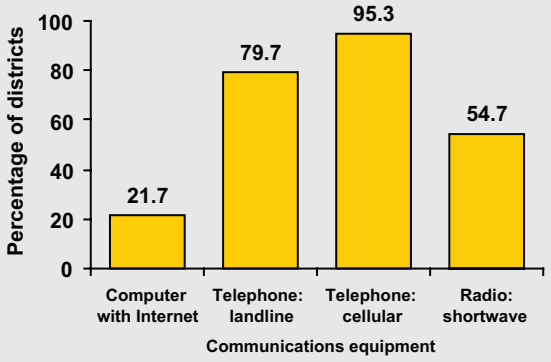
3.4 Communications equipment

The presence of good communication facilities enables the district health services to communicate effectively and efficiently within and outside the district. The SAM included questions on the presence of computers, Internet, and different telephone services. The facility section of this report takes a closer look at the availability of communications equipment at the facility level in selected districts.

Figure 3.7 shows the availability of communications equipment in districts. Four out of five districts had (working) landline telephones. Among the 128 districts, nearly all had access to cellular networks, and almost all reportedly had cellular phones. Only one district (Namtumbo) did not report any type of telephone connection. Just over half of the districts had shortwave

radio. While all but four districts had computers (97 per cent), the majority did not have Internet connections. About one in five health management teams in districts of the United Republic of Tanzania were connected to the Internet.

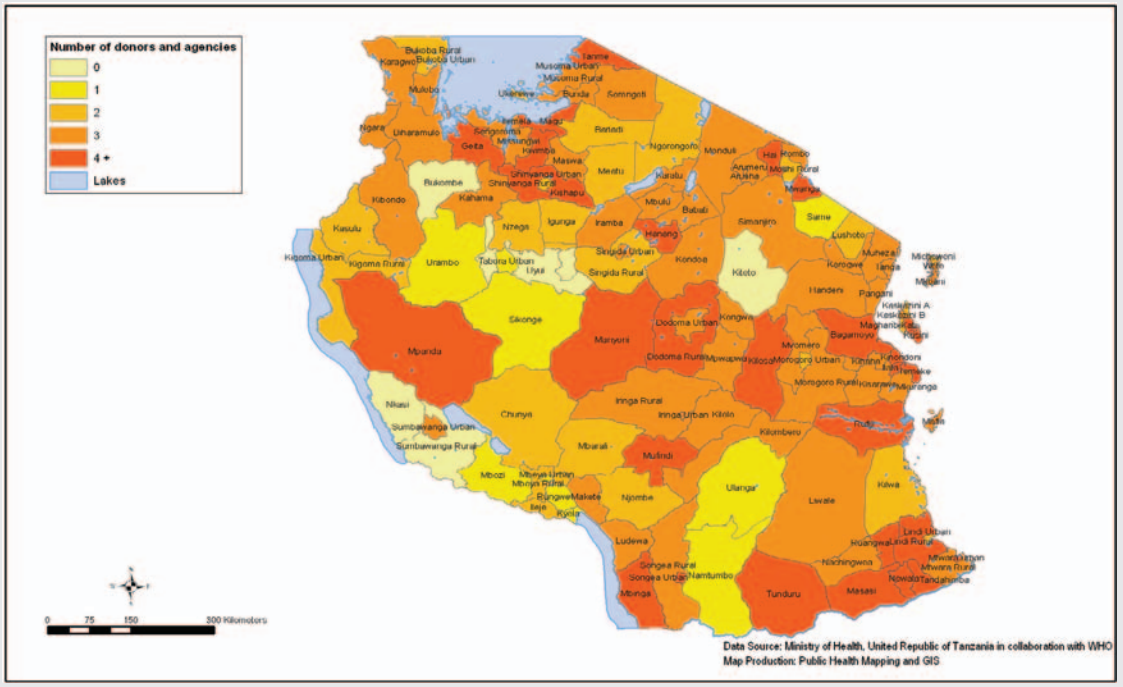
FIGURE 3.7 AVAILABILITY OF COMMUNICATIONS EQUIPMENT IN DISTRICTS, TANZANIA SAM 2006



3.5 Partner support

All council health management teams were asked about the presence of partners to support their district programmes. These included bilateral and multilateral donors, NGOs, and individual donors. Multilaterals, such as the United Nations Children's Fund (UNICEF), World Bank and WHO, were present in 84 per cent of districts; NGOs in 81 per cent; bilateral donors in 73 per cent and individual donors in 38 per cent of districts. On average, 2.7 partners were reported to be active in each district. While six districts (Kigoma Urban, Sumbawanga Rural, Uyui, Nkasi, Kiteto and Bukombe) reported having no partners, 33 districts reported that all four partners were active in their district. Figure 3.8 summarizes the situation by district.

FIGURE 3.8 NUMBER OF DONORS ACTIVE PER DISTRICT, TANZANIA SAM 2006



4. HUMAN RESOURCES

The Tanzania SAM 2006 collected information on the presence of the main cadres of health workers in each district. The council health management teams were encouraged to report staff working in all sectors, although it is likely that public-sector reporting is more complete than private-sector reporting. A comparison of the results on numbers of health workers by cadre for the 15 mainland and all Zanzibar districts where a full facility census was carried out is provided in Annex C. Results by region are presented in tables and figures in this chapter. Results by district are shown in Annex D, Table D.3.

4.1 Doctors

Table 4.1 presents the number and population density of physicians, assistant medical officers and clinical officers by type of ownership of the facility in which they work. The SAM 2006 reported 1339 physicians, including 455 in the private sector. About half (52 per cent) of all doctors were employed in the Dar es Salaam region, where the density of doctors per 10 000 population was six times higher than the national average. At the other extreme, the majority of regions (14) had only 0.1 doctors or less per 10 000 population. The national average was 0.4 doctors per 10 000 population.

Many of the functions of doctors are performed by assistant medical officers (AMOs), who have received a clinical training similar to that of general physicians. The total number of AMOs in the United Republic of Tanzania was about the same as that of physicians, and the majority were working in the public sector (74 per cent). Clinical officers have a shorter clinical training than AMOs and only perform minor surgery, but they were much more numerous than doctors and AMOs combined. In total, 6908 clinical officers were reported, corresponding to 1.8 per 10 000 population.

The last column of Table 4.1 and Figure 4.1 show the distribution of doctors and AMOs combined by region. The picture is distorted by the results for the Dar es Salaam region, which has a much higher population density than all other regions. The only other regions with doctor and AMO density exceeding 1 per 10 000 are Arusha and Mwanza (including Bugando Medical Centre, a national referral hospital in Mwanza city), both of which have major urban centres. Also, Kilimanjaro with a national referral hospital (KCMC) has above average numbers of health workers. The average for the five regions of Zanzibar was also 1 per 10 000 population. Ten regions have less than 0.5 doctors or AMOs per 10 000 population, with Shinyanga, Tabora, Kagera and Mbeya having the lowest densities.

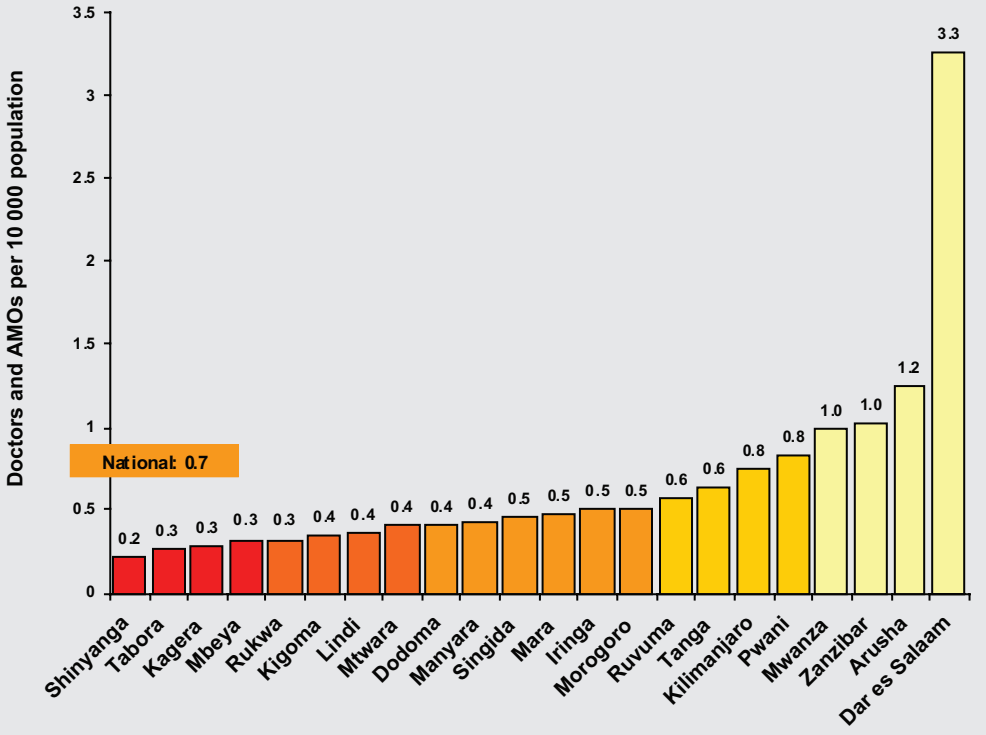
Table 4.1 Physicians, assistant medical officers and clinical officers in the public and private sectors: number and density per 10 000 population, Tanzania SAM 2006

Region	Physicians				Assistant medical officers				Clinical officers				All	
	Pub	Priv	Tot	Den	Pub	Priv	Tot	Den	Pub	Priv	Tot	Den	Tot	Den
Mainland	*843*	*443*	*1286*	*0.3*	*1108*	*265*	*1373*	*0.4*	*5521*	*1180*	*6701*	*1.8*	*2659*	*0.72*
Arusha	33	5	38	0.3	55	90	145	1.0	207	52	259	1.8	183	1.24
DSM	430	263	693	2.5	160	59	219	0.8	623	441	1064	3.8	912	3.25
Dodoma	15	6	21	0.1	44	13	57	0.3	122	41	163	0.9	78	0.41
Iringa	16	5	21	0.1	57	3	60	0.4	381	34	415	2.6	81	0.50
Kagera	22	5	27	0.1	35	3	38	0.2	164	15	179	0.8	65	0.29
Kigoma	7	1	8	0.1	40	6	46	0.3	163	17	180	1.2	54	0.35
Kilimanjaro	28	15	43	0.3	52	20	72	0.5	360	93	453	3.0	115	0.75
Lindi	6	0	6	0.1	23	2	25	0.3	151	7	158	1.9	31	0.36
Manyara	10	1	11	0.1	40	1	41	0.3	195	28	223	1.9	52	0.43
Mara	16	5	21	0.1	46	8	54	0.3	186	25	211	1.3	75	0.48
Mbeya	12	6	18	0.1	51	6	57	0.2	469	26	495	2.1	75	0.32
Morogoro	29	4	33	0.2	58	6	64	0.3	345	61	406	2.1	97	0.50
Mtwara	15	1	16	0.1	31	3	34	0.3	122	5	127	1.0	50	0.41
Mwanza	75	100	174	0.5	121	21	142	0.4	384	43	427	1.3	316	1.00
Pwani	29	3	32	0.3	45	4	49	0.5	267	19	286	3.0	81	0.83
Rukwa	6	0	6	0.0	33	3	36	0.3	175	4	179	1.4	42	0.32
Ruvuma	24	3	27	0.2	44	0	44	0.4	239	13	252	2.0	71	0.57
Shinyanga	10	8	18	0.1	44	6	50	0.2	305	136	441	1.3	68	0.21
Singida	22	2	24	0.2	32	0	32	0.3	147	5	152	1.2	56	0.46
Tabora	17	3	20	0.1	31	1	32	0.2	229	29	258	1.3	52	0.26
Tanga	22	8	30	0.2	66	10	76	0.5	287	86	373	2.3	106	0.64
Zanzibar	*42*	*12*	*54*	*0.5*	*31*	*30*	*61*	*0.5*	*123*	*84*	*207*	*1.9*	*115*	*1.02*
Pemba N	4	1	5	0.2	2	3	5	0.2	8	3	11	0.5	10	0.46
Pemba S	10	2	12	0.6	6	6	12	0.6	12	8	20	1.0	24	1.13
Unguja N	0	0	0	0.0	2	1	3	0.2	5	1	6	0.4	3	0.19
Unguja S	0	2	2	0.1	1	1	2	0.2	5	5	10	1.0	4	0.34
Unguia Town	28	8	36	0.8	20	19	39	0.9	93	67	160	3.7	75	1.71
Total	884	455	1339	0.4	1139	295	1434	0.4	5644	1264	6908	1.8	2773	0.73

Dens: density; DSM: Dar es Salaam; N: North; Pri: private; Pub: public; S: South; Tot: total.

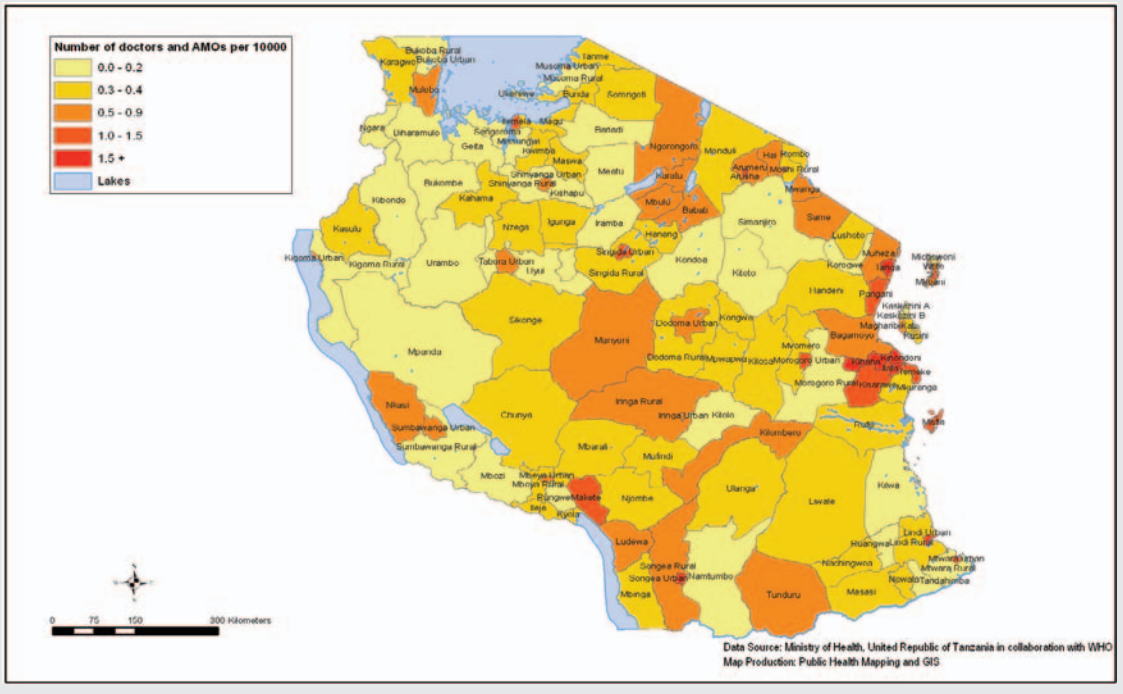
Figure 4.2 is a map showing the density of doctors and AMOs by district in the United Republic of Tanzania. Details by district are also shown in Annex D. The variation between districts can partly be explained the small population size of some districts, which implies that there are no hospitals.

FIGURE 4.1 DOCTORS AND ASSISTANT MEDICAL OFFICERS (AMOs) PER 10 000 POPULATION, BY MAINLAND REGION AND ZANZIBAR,[a] TANZANIA SAM 2006



[a] Values for the five regions of Zanzibar are combined.

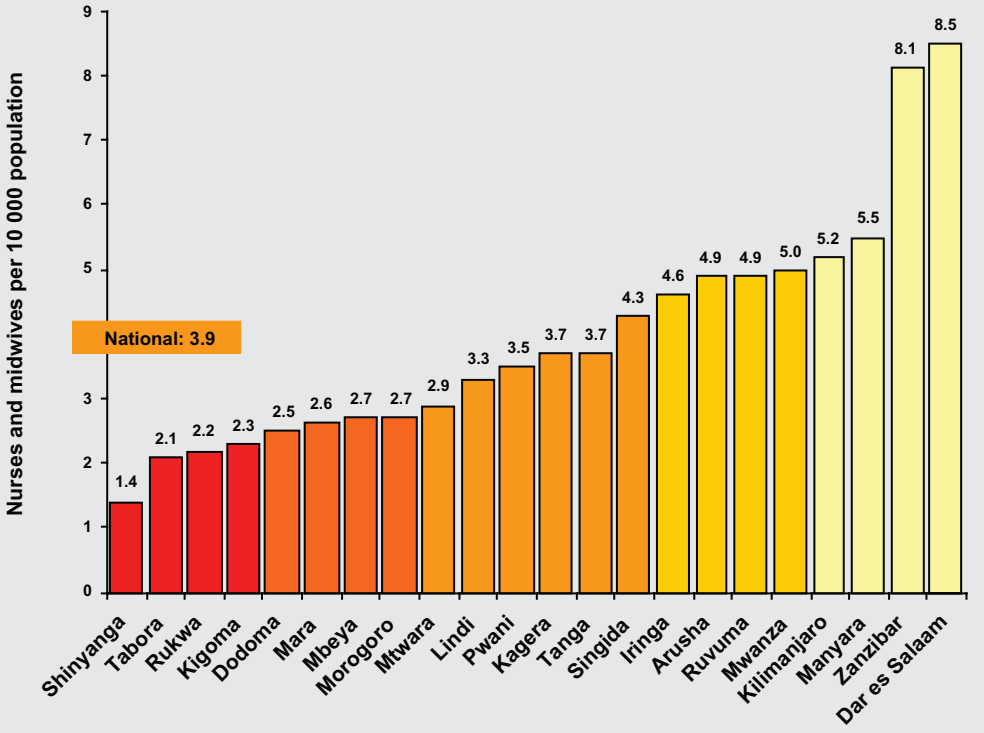
FIGURE 4.2 DOCTORS AND ASSISTANT MEDICAL OFFICERS (AMOs) PER 10 000 POPULATION BY DISTRICT, TANZANIA SAM 2006



4.2 Nurses and midwives

Table 4.2 summarizes the number of nurses, midwives and medical assistants by region. The figures by district are shown in Annex D. The districts reported a total of 4841 nurses and 9990 nurse/midwives. This corresponds to 1.3 nurses and 2.6 nurse/midwives per 10 000 population, and combining these values gives a total of nearly 4 nurses and midwives per 10 000 population. Among nurses and nurse/midwives, 12.1 per cent and 14.5 per cent, respectively, work in the private sector. The differences between regions are summarized in Figure 4.3 and shown by district in Figure 4.4. Zanzibar has about twice as many nurses and midwives as the mainland: 8.2 and 3.8 per 10 000 population, respectively. Only the Dar es Salaam region has more nurses and midwives. Among the remaining 20 mainland regions, the nurse/midwife density ranges from a low of 1.4 and 2.1 in Shinyanga and Tabora regions, respectively, to 5 or more in Mwanza, Kilimanjaro and Manyara regions.

FIGURE 4.3 NURSES AND MIDWIVES PER 10 000 POPULATION, BY MAINLAND REGION AND ZANZIBAR,[a] TANZANIA SAM 2006



[a] Values for the five regions of Zanzibar are combined.

Table 4.2 Nurses, midwives and medical assistants in the public and private sectors: number and density per 10 000 population, Tanzania SAM 2006

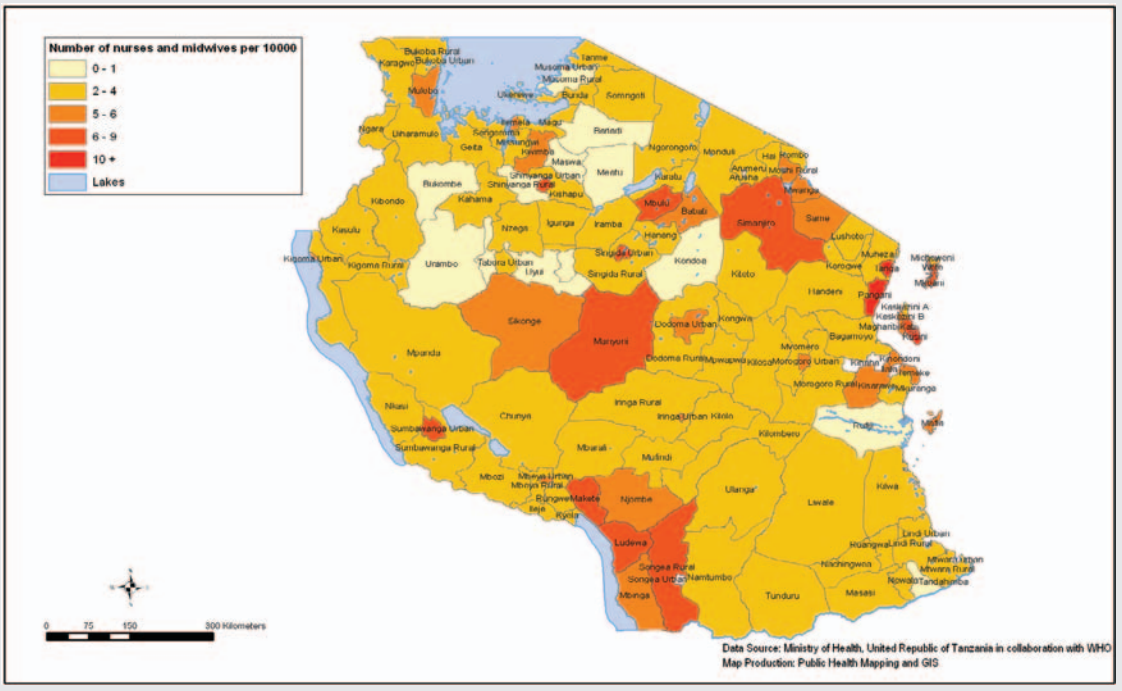
Region	Nurses				Midwives				Medical assistants				Nurse/ midwife	
	Pub	Priv	Tot	Dens	Pub	Priv	Tot	Dens	Pub	Priv	Tot	Dens	Tot	Dens
Mainland	*4109*	*565*	*4674*	*1.3*	*7875*	*1371*	*9246*	*2.5*	*17 445*	*3718*	*21 163*	*5.7*	*13 920*	*3.8*
Arusha	172	38	210	1.4	374	132	506	3.4	917	216	1133	7.7	716	4.9
Dar es Salaam	844	275	1119	4.0	801	461	1262	4.5	1883	1763	3646	13.0	2381	8.5
Dodoma	111	35	146	0.8	229	101	330	1.7	706	161	867	4.6	476	2.5
Iringa	184	9	193	1.2	503	45	548	3.4	1108	122	1230	7.6	741	4.6
Kagera	196	12	208	0.9	547	62	609	2.8	854	34	888	4.0	817	3.7
Kigoma	70	3	73	0.5	264	15	279	1.8	699	57	756	4.9	352	2.3
Kilimanjaro	250	16	266	1.7	423	101	524	3.4	1194	261	1455	9.5	790	5.2
Lindi	89	1	90	1.1	195	0	195	2.3	415	10	425	5.0	285	3.3
Manyara	185	2	187	1.6	447	23	470	3.9	567	62	629	5.3	657	5.5
Mara	85	7	92	0.6	290	24	314	2.0	633	19	652	4.1	406	2.6
Mbeya	111	22	133	0.6	458	41	499	2.1	1028	89	1117	4.8	632	2.7
Morogoro	139	27	166	0.9	290	70	360	1.9	864	63	927	4.8	526	2.7
Mtwara	91	4	95	0.8	241	12	253	2.1	568	13	581	4.8	348	2.9
Mwanza	844	85	929	2.9	557	95	652	2.1	995	297	1292	4.1	1581	5.0
Pwani	105	0	105	1.1	220	10	230	2.4	578	58	636	6.6	335	3.5
Rukwa	76	1	77	0.6	209	3	212	1.6	628	18	646	5.0	289	2.2
Ruvuma	154	1	155	1.3	445	1	446	3.6	1010	20	1030	8.3	601	4.9
Shinyanga	99	19	118	0.4	268	59	327	1.0	537	68	605	1.8	445	1.4
Singida	83	3	86	0.7	428	8	436	3.6	681	14	695	5.7	522	4.3
Tabora	92	1	93	0.5	296	19	315	1.6	572	204	776	3.9	408	2.1
Tanga	129	4	133	0.8	390	89	479	2.9	1008	169	1177	7.1	612	3.7
Zanzibar	*146*	*21*	*167*	*1.5*	*667*	*77*	*744*	*6.7*	*757*	*104*	*861*	*7.7*	*911*	*8.1*
Pemba N	27	4	31	1.4	85	3	88	4.1	105	6	111	5.1	119	5.5
Pemba S	49	10	59	2.8	93	3	96	4.6	181	4	185	8.9	155	7.5
Unguja N	4	0	4	0.3	52	5	57	3.7	28	5	33	2.1	61	3.9
Unguja S	12	0	12	1.2	60	3	63	6.1	73	2	75	7.3	75	7.3
Unguja Town	54	7	61	1.4	377	63	440	10.1	370	87	457	10.5	501	11.5
Total	4255	586	4841	1.3	8542	1448	9990	2.6	18 202	3822	22 024	5.8	14 831	3.9

Dens: density; Pri: private; Pub: public; Tot: total.

Figure 4.4 presents a map showing the density of nurses and midwives by district in the United Republic of Tanzania. Details by district are also shown in Annex D.

The skills mix is another indicator of the distribution of health workers. In the United Republic of Tanzania as a whole, there are 5.3 nurses/midwives for every doctor or AMO. Zanzibar has a considerably higher ratio than mainland Tanzania (8.0 and 5.2, respectively).

FIGURE 4.4 NURSES AND MIDWIVES PER 10 000 POPULATION BY DISTRICT, TANZANIA SAM 2006



Medical assistants outnumber nurses and midwives. There are 22 024 in the United Republic of Tanzania, including 3822 (17.4 per cent) who work in the private sector. Dar es Salaam has the highest number of medical assistants per 10 000 population (13).

4.3 Other cadres

In the Tanzania SAM, questions were asked about several other cadres of health workers (Table 4.3). There were 104 dentists in the United Republic of Tanzania, including 35 working in the private sector. There is only one dentist in Zanzibar. Overall in the country as a whole, there is only one dentist for 360 000 people. Dental assistants are slightly more common: 256, including 21 in Zanzibar.

There are 828 laboratory technicians in the United Republic of Tanzania, and about one of three works in the private sector. Dar es Salaam, Mwanza and Zanzibar have the largest numbers of laboratory technicians, mainly because of the large hospitals. One would expect a similarly large number in Kilimanjaro region, but the districts reported only 13 technicians.

Of the 192 pharmacists in the United Republic of Tanzania, the majority were working in the private sector (61 per cent). There were 0.08 pharmacists for 10 000 people, or one for every 125 000 people. The 128 districts reported 201 pharmaceutical technologists, 260 health information officers and 128 health service managers.

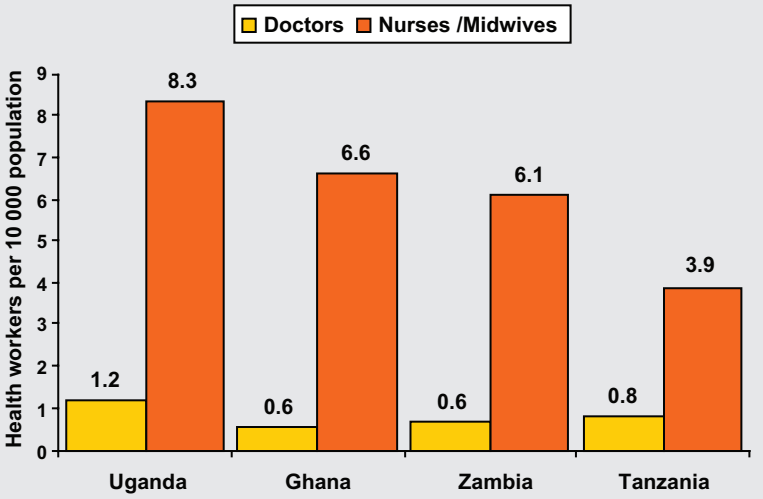
Table 4.3 Numbers of public and private health workers among specific cadres: dentist, dental assistant, pharmacist, pharmaceutical technician, health information officer, and health services manager, Tanzania SAM 2006

Region	Dentist		Dental assistant		Laboratory technician		Pharmacist		Pharma. Techn.		Health info. officer		Health services manager	
	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Priv	Pub	Pri
Mainland	*68*	*35*	*185*	*50*	*448*	*262*	*80*	*178*	*154*	*23*	*229*	*24*	*115*	*662*
Arusha	7	2	8	4	18	23	6	2	8	1	25	1	10	0
Dar es Salaam	20	29	45	36	113	128	22	134	36	12	72	14	13	3
Dodoma	4	1	2	0	13	0	2	0	5	0	4	0	2	0
Iringa	2	0	16	1	25	2	4	1	8	2	5	1	8	0
Kagera	3	0	7	0	15	2	8	0	7	0	5	0	8	0
Kigoma	0	0	6	0	9	2	1	0	1	0	6	0	5	0
Kilimanjaro	1	1	5	3	10	3	3	6	11	3	15	1	10	1
Lindi	1	1	4	1	4	0	1	0	2	1	4	0	2	0
Manyara	1	0	6	0	5	0	2	0	6	0	3	0	7	0
Mara	1	0	4	0	10	2	2	0	5	1	5	1	2	0
Mbeya	1	0	15	3	12	3	1	0	7	0	6	2	5	0
Morogoro	8	0	8	0	9	3	4	0	4	0	19	4	5	0
Mtwara	3	0	5	0	3	0	2	0	1	0	1	0	0	0
Mwanza	1	0	8	0	101	60	4	24	11	2	15	0	11	0
Pwani	4	1	7	1	22	1	5	2	6	0	16	0	4	0
Rukwa	1	0	4	0	3	4	1	0	2	0	1	0	2	0
Ruvuma	2	0	7	0	22	0	3	0	5	0	6	0	3	0
Shinyanga	1	0	10	0	19	19	3	3	14	1	4	0	5	1
Singida	1	0	2	0	8	1	1	0	3	0	3	0	3	0
Tabora	2	0	4	1	11	3	2	4	8	0	8	0	4	0
Tanga	4	0	12	0	16	6	3	2	4	0	6	0	6	0
Zanzibar	*1*	*0*	*13*	*8*	*90*	*28*	*34*	*0*	*14*	*10*	*6*	*1*	*8*	*0*
Pemba North	0	0	2	1	3	1	1	0	0	1	1	0	2	0
Pemba South	0	0	1	1	6	7	1	0	1	1	2	0	3	0
Unguja North	0	0	0	1	3	0	1	0	0	1	0	0	1	0
Unguja South	0	0	5	0	4	2	6	0	0	0	0	1	1	0
Unguja Town	1	0	5	5	74	18	25	0	13	7	3	0	1	0
Total	69	35	198	58	538	290	114	178	168	33	235	25	123	5
Density per 10 000 population	0.03		0.07		0.22		0.08		0.05		0.07		0.03	

4.4 Comparison with other countries

Comparable statistics on health workers are difficult to obtain as classifications may differ, counting of public-sector workers is often incomplete, and including the private sector is fraught with difficulties. Figure 4.5 presents data on doctor and nurse/midwife densities in four countries. The data for Uganda were obtained from the 2002 census, which used the following categories: medical doctors, nurses and midwifery professionals, and nurses and midwifery associate professionals.[13] The data for Ghana are for 2004 from the Ghana Health Services and include the following categories: doctors and professional and auxiliary nurses.[14] The data for Zambia were obtained from the SAM exercise in 2004 and include doctors, assistant doctors, nurses and midwives.[15] The density of health workers is highest in Uganda for both doctors and nurses/midwives. The United Republic of Tanzania has a higher density of doctors than Ghana and Zambia, which is largely because of the inclusion of AMOs. If the AMOs are excluded, the density would be 0.4 per 10 000 population. The density of nurses and midwives in the United Republic of Tanzania is markedly lower than in the other three countries. If, however, medical assistants were included, the value for the United Republic of Tanzania would increase to 9.7 per 10 000 population, which is higher than in the other three countries.

FIGURE 4.5 NUMBER OF DOCTORS AND NURSES/MIDWIVES PER 10 000 POPULATION IN SELECTED COUNTRIES IN SUB-SAHARAN AFRICA, 2002–2006



The distribution of health workers is often very uneven within countries. In part this is due to the fact that large hospitals and health-training institutions are located in major urban areas. Also, partly because of the tendency of health workers to settle in urban areas where there are more opportunities to work in the health sector and where living conditions tend to be better. The concentration of workers in the capital city is the simplest indicator of distribution of health workers. The Uganda 2002 census allows a comparison of Kampala district with the rest of the

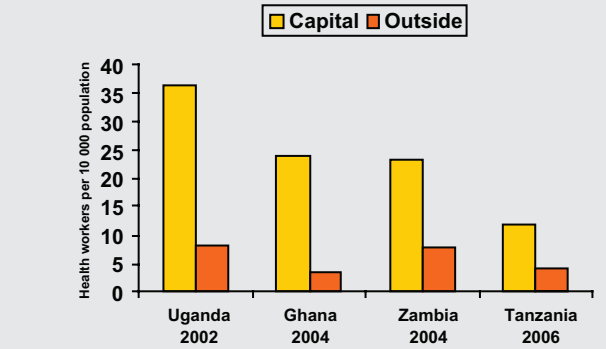
[13] Ssennono V, Petit P, Leadbetter D. *Uganda 2002 population and housing census: special analysis on health workers commissioned by the developing human resources for health project*. Ministry of Health. Kampala, 2005.

[14] *Fact & Figures*. Accra, Policy Planning Monitoring and Evaluation, Ghana Health Service, 2005.

[15] Zambia: *Service Availability Mapping (SAM) 2006*. WHO and Ministry of Health, Lusaka, 2006.

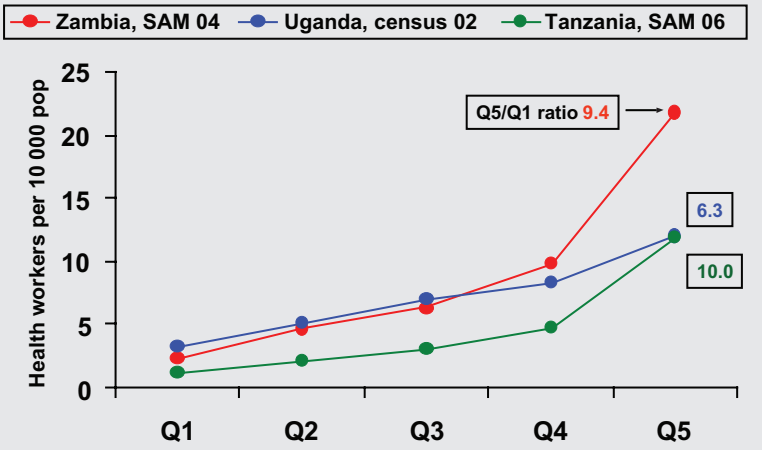
country. For Ghana, the comparison is between the Greater Accra region and the remaining nine regions. The data for Zambia are for Lusaka district and all other districts, and for the United Republic of Tanzania are between the Dar es Salaam region and all other regions. The ratio in the United Republic of Tanzania is lower than in Ghana and Uganda, but higher than in Zambia. Figure 4.6 combines the data on doctors, nurses and midwives into one health-worker density statistic. The low ratio in Zambia may because the regions outside Lusaka are also fairly urbanized, such as the Copperbelt. The low density of health workers in the capital city Dar es Salaam is the most striking finding illustrated in Figure 4.6. This may partly be owing to an underestimation of the number of health workers in the private sector in Dar es Salaam, although an effort was made to visit all facilities.

FIGURE 4.6 NUMBER OF HEALTH WORKERS PER 10 000 POPULATION IN AND OUTSIDE THE CAPITAL CITY IN SELECTED COUNTRIES



A more detailed comparison is possible by looking at the distribution of health workers by district and population. Figure 4.7 is based on an analysis in which the districts were divided between five quintiles, each quintile containing one fifth of the population. The analysis included 56, 72 and 128 districts in Uganda, Zambia and the United Republic of Tanzania, respectively. The United Republic of Tanzania shows a gradual increase from an average of 1.2 health workers per 10 000 population in the lowest quintile to 4.8 in the fourth quintile and to 11.8 in the highest

FIGURE 4.7 POPULATION DENSITY OF HEALTH WORKERS, BY DISTRICT QUINTILE[a] IN SELECTED COUNTRIES



[a] The districts were distributed into five quintiles, each quintile containing one fifth of the population. Quintile 1 contains the lowest density of health workers and quintile 5 contains the highest density.

quintile: a tenfold increase. A similar pattern was observed in Zambia, from 2.3 to 21.7 in the lowest and highest quintiles, respectively. Uganda shows a different pattern, with an almost linear increase from 3.3 in the lowest quintile to 12.0 health workers per 10 000 population in the highest quintile.

4.5 Trends over time

The Health Statistics Abstract of 1995 provides an opportunity to look at long-term trends, as it provides complete data on health workers in 1994. The number of doctors increased from 1205 to 1339, but the density per 10 000 population remained unchanged because of population growth. There were more than twice as many AMOs in 2006 than 12 years earlier. There was also a marked increase in the number of clinical officers and laboratory technicians.

The number of nurses and nurse/midwives appears to have decreased considerably (Table 4.4). The number in 1994 included General Nurse Grade A (5204), TN/Nurse midwife (12 846), and MCH Aide (3707) as largest categories. These should all have been included in the SAM 2006, except perhaps the MCH Aide.

4.6 Training of health workers

The respondents were asked to provide an estimate of the proportion of health workers who had undertaken training in specific programmes. They were asked to consider both in-service and pre-service training. There were four coding options: none, less than half, more than half and all health workers. Figure 4.8 summarizes these results, which give an indication of the current reach of training programmes, although the data are based on estimates and not interviews of health workers or reviews of the records.

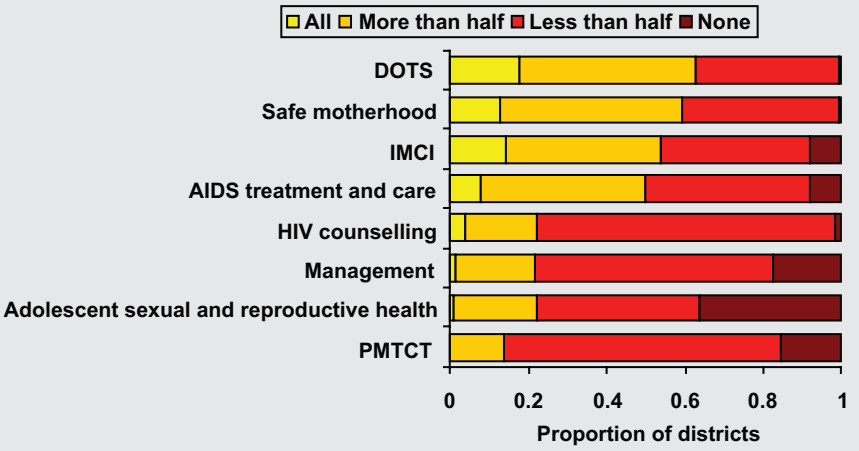
Table 4.4 Number of health workers in selected cadres, mainland Tanzania

health worker	1994		2006	
	N	Per 10 000 population	N	Per 10 000 population
Doctor	1205	0.4	1339	0.4
Assistant medical officer	619	0.2	1434	0.4
Clinical officer	2892	1.0	6908	1.8
Clinical assistant	4898	1.6	—	—
Laboratory technician	163	0.1	828	0.2
Laboratory technologist	250	0.1	—	—
Pharmaceutical technician	258	0.1	201	0.1
Nurse/midwife	24 895	8.3	14 831	3.9

From Ministry of Health and Social Welfare, 1995, and Tanzania SAM 2006.

The programmes for which the districts report high levels of coverage (at least half or all health workers) are shown at the top of Figure 4.8. These include well-established programmes such as directly observed treatment, short course (DOTS) for tuberculosis and safe motherhood, where more than half of the districts reported that at least half of the health workers had been trained. Training in Integrated Management of Childhood Illness (IMCI) and treatment and care of patients with HIV/AIDS had reached the majority of health workers in about half of the districts, while in less than 10 per cent of districts health workers had not received any of the specified training programmes.

FIGURE 4.8 ESTIMATED PROPORTION OF HEALTH WORKERS THAT HAVE UNDERTAKEN SPECIFIC TRAINING PROGRAMMES IN EACH DISTRICT, TANZANIA SAM 2006



DOTS: directly-observed treatment, short course (administration of treatment for tuberculosis); IMCI: Integrated Management of Childhood Illness; PMTCT: prevention of mother-to-child transmission.

The situation is quite different for the four training programmes at the bottom of Figure 4.8: HIV counselling, health-services management, adolescent sexual and reproductive health and PMTCT. For these programmes, only about one fifth of the districts reported that most of their health workers had been trained. For PMTCT, the figure is even lower. In addition, a large number of districts reported that there had not been any training in adolescent and reproductive health (36 per cent of districts), health-services management (18 per cent of districts) or PMTCT (16 per cent of districts).

Table 4.5 summarizes the intensity of training received by health workers, by district. The summary measure is based on the reports of the district teams on the estimated proportion of health workers trained in each of eight training courses, such as IMCI, safe motherhood, HIV/AIDS, tuberculosis and general health-services management. If in the district it was reported that less than 50 per cent (but more than none) of health workers had received training, one point was given, more than 50 per cent gave two points, and full coverage, three points. No data were available for Tanga district. Training intensity was lowest for the districts on the left-hand side of the table, such as Ludewa, and highest for the districts on the right-hand side, led by Moshi Urban.

Table 4.5 Distribution of districts[a] according to relative health-worker training intensity score,[b] Tanzania SAM 2006

Relative health-worker training intensity score				
Lowest	**Below average**	**Average**	**Above average**	**Highest**
Ludewa	Chunya	Babati	Handeni	Hanang
Bunda	Dodoma Rural	Bariadi	Kahama	Kongwa
Nachingwea	Liwale	Bukombe	Kigoma Urban	Kwimba
Sumbawanga R	Mbinga	Hai	Lindi Rural	Ruangwa
Kiteto	Mbozi	Igunga	Lushoto	Singida Urban
Moshi Rural	Meatu	Kinondoni	Mafia	Bukoba Urban
Same	Muleba	Kyela	Mkoani	Kigoma Rural
Urambo	Musoma Urban	Maswa	Monduli	Kisarawe
Arumeru	North B	Mbarali	Morogoro Rural	Kondoa
Bukoba Rural	Tarime	Mbeya Urban	Muheza	Nzega
Makete	West	Mbulu	Ngara	Temeke
Mtwara Rural	Ileje	Micheweni	Rufiji	Ilala
Namtumbo	Iringa Rural	Morogoro Urb	Songea Rural	Moshi Urban
Njombe	Kibondo	Mtwara Urban	Geita	
Nkasi	Kilolo	Mufindi	Iramba	
Simanjiro	Kilwa	Musoma Rural	Kilombero	
Tunduru	Kishapu	Shinyanga Urb	Magu	
	Masasi	Sikonge	Mbeya Rural	
	Mwanga	Tabora Urban	Mpanda	
	Newala	Tandahimba	Rombo	
	Ngorongoro	Uyui	Serengeti	
	Rungwe	Wete	Town	
	Shinyanga Rural	**National**	Arusha	
	Singida Rural	Biharamulo	Chakechake	
	Songea Urban	Central	Iringa Urban	
	South	Dodoma Urban	Kasulu	
	Sumbawanga U	Ilemela	Kibaha	
	Ukerewe	Karagwe	Kilosa	
		Karatu	Manyoni	
		Korogwe	Misungwi	
		Lindi Urban	Bagamoyo	
		Mkuranga		
		Mpwapwa		
		Mvomero		
		North A		
		Nyamagana		
		Pangani		
		Sengerema		
		Ulanga		

[a] No data were available for Tanga district.

[b] The relative health-worker training intensity score is an estimate of the proportion of health workers trained in each of eight courses, including Integrated Management of Childhood Illness (IMCI), safe motherhood, HIV/AIDS, tuberculosis and general health-services management.

5. SERVICE AVAILABILITY

This chapter describes availability for a selected number of services. The questionnaire used different approaches to collect data from the council health management teams. For some services it was simply asked whether the service was present at all in the district, e.g. CD4 cell counts. For other services and service characteristics, the district team was asked to roughly estimate the percentage of health facilities providing the service in the district, using four categories (none, less than 50 per cent, more than 50 per cent and all), e.g. safe water supply. Lastly, the facility listings for each district were used to determine for each facility whether or not a specific service was provided, e.g. ART.

5.1 Laboratory services

Basic laboratory services were available in most districts. Overall, 91 per cent of all districts can provide a blood count, 93 per cent can do a test for blood sugar, 98 per cent a test for haemoglobin, and 41 per cent do serological tests for liver functions. The 12 districts in which basic haematology (blood count, haemoglobin and blood sugar) could not be done were Kigoma Rural, Mbarali (Mbeya region), Morogoro Rural, Mtwara Rural, Sumbawanga Rural (Rukwa region), Namtumbo (Ruvuma), Bukombe and Shinyanga Rural (both Shinyanga), Nzega and Uyui (both Tabora), North B (Unguja North) and Central (Unguja South). At the time of the Tanzania SAM 2006, CD4 cell counts could be done in 45 of the 128 districts (35 per cent). The distribution by region is shown in Table 5.1.

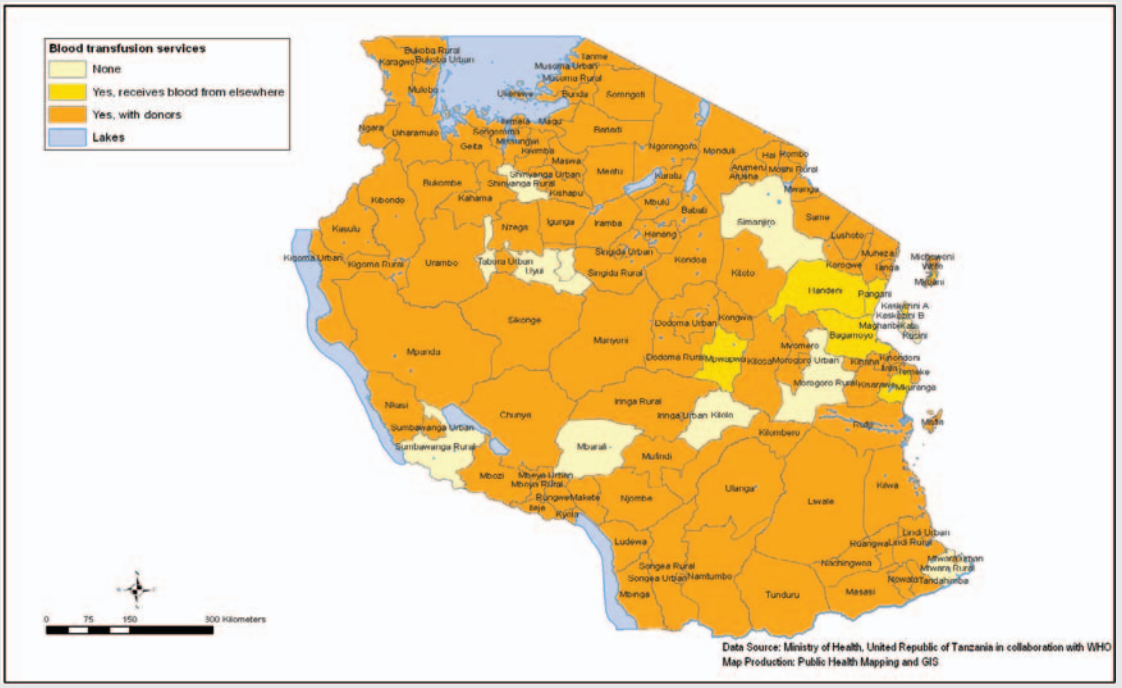
Table 5.1 Number of districts providing CD4 cell-count facilities, by region, Tanzania SAM 2006

Number of districts providing CD4 cell-count facilities	Region
None	Kigoma, Pemba North
1	Arusha, Dodoma, Manyara, Pemba South, Rukwa, Shinynaga, Singida, Tabora, Unguja North, Unguja South, Unguja Town
2	Iringa, Lindi, Mara, Mwanza, Pwani, Ruvuma
3 or more	Dar es Salaam, Kagera, Kilimanjaro, Mbeya, Morogoro, Tanga

5.2 Blood transfusion services

Among the 128 districts, 12 districts reported having no blood transfusion services at all. Seven districts offered blood transfusion services but had no donor blood collection, which implies that their supply comes from another district or regional centre. Most districts use more than one type of donor (Figure 5.1). Among the remaining 109 districts, 70 per cent used volunteer donors, 33 per cent used paid donors, and all indicated that they also used donors who were relatives of the person being transfused. The use of paid donors is more common in districts of some regions than others. For instance, four districts reported use of paid donors in Morogoro, Mwanza, Pwani and Ruvuma regions. Regions with three districts using paid donors included Kagera, Mtwara and Shinyanga. One district in Zanzibar used paid donors.

FIGURE 5.1 AVAILABILITY OF BLOOD TRANSFUSION SERVICES IN DISTRICTS, TANZANIA SAM 2006



Districts were also asked if there were any shortages in the blood supply during the seven days preceding the interview. Out of the 109 districts, 64 (59 per cent) reported that there had been shortages. This indicates that most districts have problems in meeting the demand for blood transfusion.

5.3 Medical equipment

All districts were asked whether they were able to give oxygen to patients and whether they had the capacity to provide X-rays. The majority of districts indicated that they were able to provide both services: 77 per cent could provide oxygen and 84 per cent could perform an X-ray for diagnostic purposes. Table 5.2 summarizes the results by region. The poorest results were reported by Mtwara, Shinyanga and Tabora. For instance, Mtwara region had only one district out of five with a facility that can give oxygen, and three out of five that can do an X-ray.

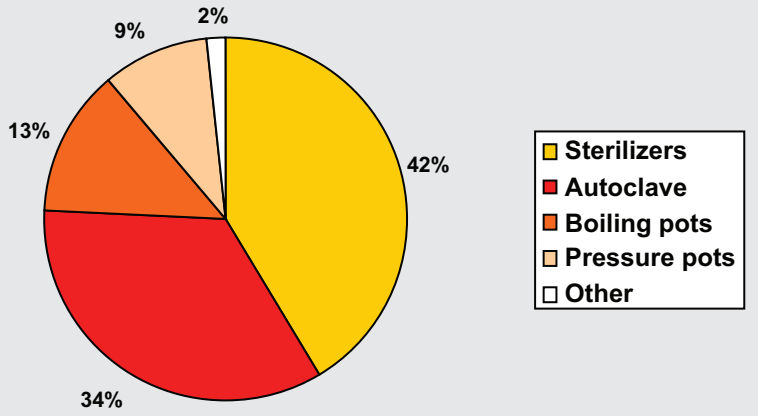
Table 5.2 Number of districts providing oxygen and with X-ray equipment and services, by region, Tanzania SAM 2006

Region	Oxygen	X-ray	Total districts
Arusha	5	5	5
Dar es Salaam	3	3	3
Dodoma	5	5	5
Iringa	6	6	7
Kagera	6	5	6
Kigoma	3	3	4
Kilimanjaro	6	6	6
Lindi	4	5	6
Manyara	5	4	5
Mara	3	4	5
Mbeya	7	8	8
Morogoro	5	5	6
Mtwara	1	3	5
Mwanza	5	8	8
Pemba North	1	1	2
Pemba South	2	2	2
Pwani	5	5	6
Rukwa	3	3	4
Ruvuma	4	4	5
Shinyanga	4	5	8
Singida	4	4	4
Tabora	3	5	6
Tanga	6	6	6
Unguja North	1	0	2
Unguja South	1	1	2
Unguja Town	1	1	2
Total	99	107	128

5.4 Injection and sterilization practices

All districts in the United Republic of Tanzania reported that disposable needles and syringes were most commonly used. The most common method of sterilization was sterilizers (53 districts), followed by autoclave (44 districts) (Figure 5.2). There were, however, also 17 districts (13 per cent) that reported that boiling pots, a less desirable method of sterilization, was still the predominant method. These districts included Arumeru and Karatu (Arusha), Ludewa and Makete (Iringa region), Biharamulo (Kagera), Kigoma Urban, Moshi Rural (Kilimanjaro), Babati (Manyara), Serengeti (Mara), Ukerewe and Geita (Mwanza), Sumbawanga Rural and Nkasi (Rukwa), Kahama and Meatu (Shinyanga), Urambo (Tabora) and Lushoto (Tanga).

FIGURE 5.2 MAIN TYPES OF STERILIZATION EQUIPMENT USED BY DISTRICTS, TANZANIA SAM 2006



5.5 Service provision: HIV/AIDS

For all facilities listed, the district teams were asked to indicate whether specific services for HIV/AIDS were provided. These included provision of antiretrovirals, PMTCT, and HIV counselling and testing (Figure 5.3). In mainland Tanzania, ART was available from at least one facility in 65 per cent of the districts. One service delivery point was available in 38 per cent of districts and just over one quarter of districts had two or more ART facilities. Figure 5.4 is a map showing districts in which ART was available.

FIGURE 5.3 ESTIMATED PROPORTION OF HEALTH FACILITIES PROVIDING SPECIFIC HIV/AIDS-RELATED SERVICES IN MAINLAND TANZANIA: DISTRIBUTION OF DISTRICTS, TANZANIA SAM 2006

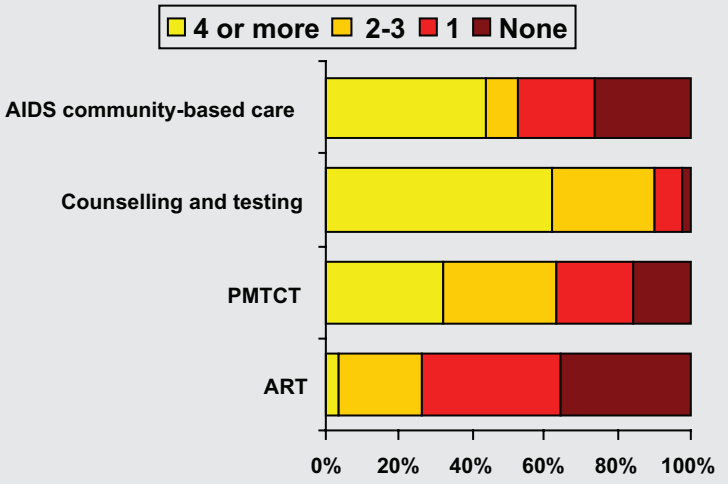
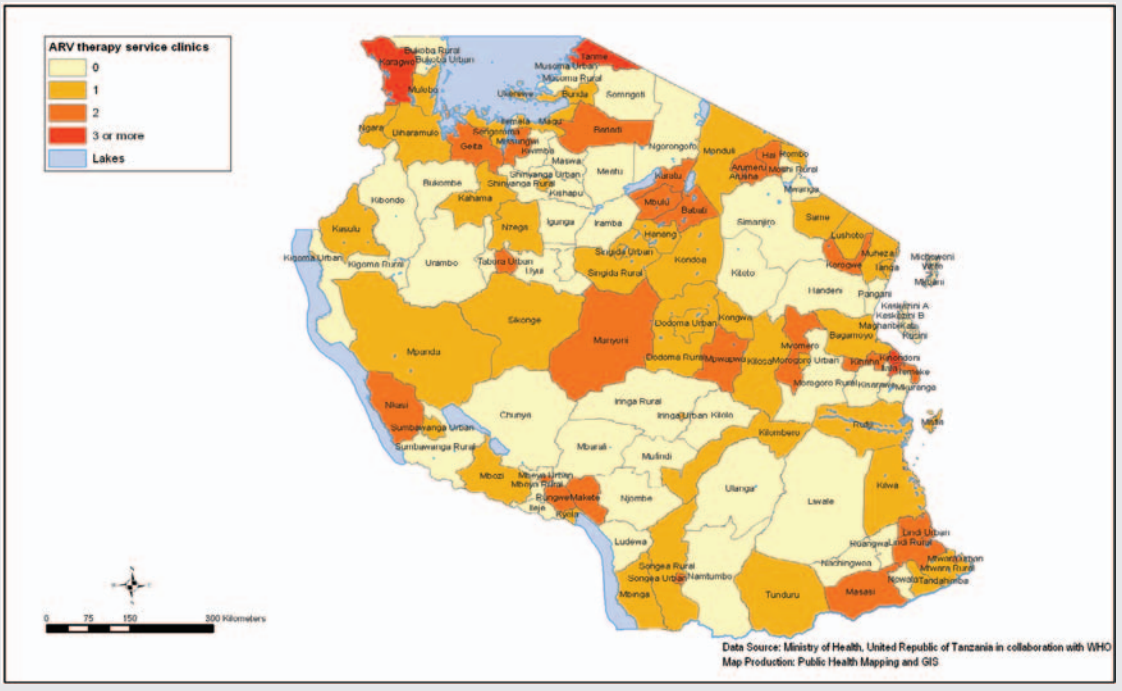
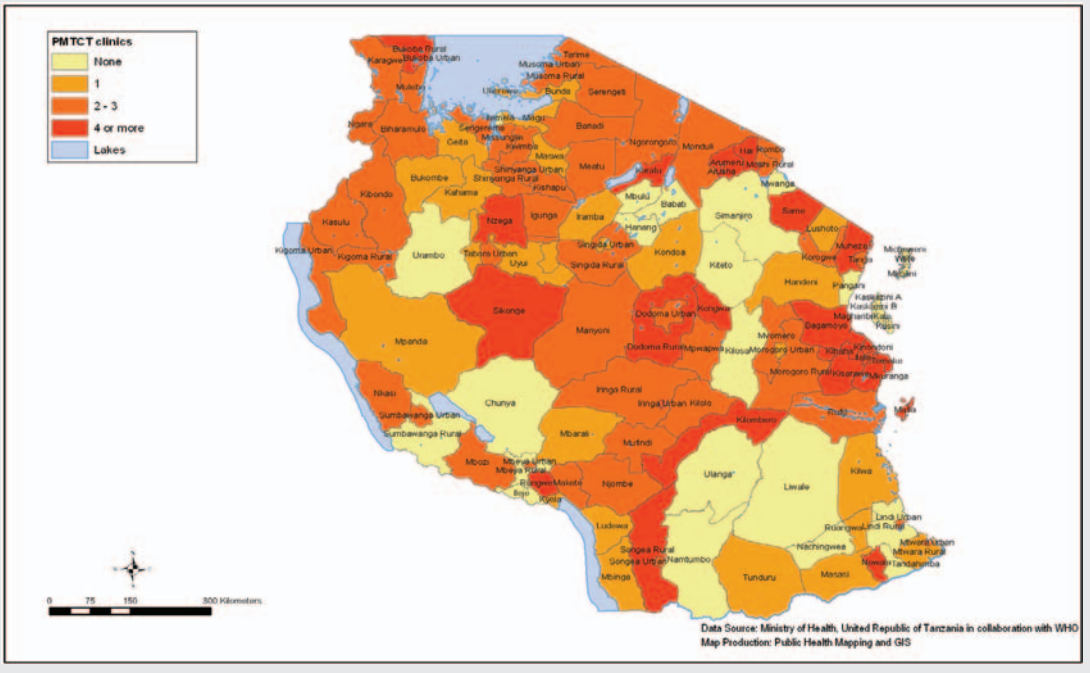


FIGURE 5.4 DISTRICTS IN WHICH ANTIRETROVIRAL THERAPY WAS AVAILABLE AT BEGINNING 2006, TANZANIA SAM 2006



PMTCT services are not available in 16 per cent of districts, while 21 per cent of districts have only one facility providing PMTCT. Ten per cent have four or more facilities (Figure 5.5).

FIGURE 5.5 DISTRIBUTION OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) SERVICES BY DISTRICT, TANZANIA SAM 2006



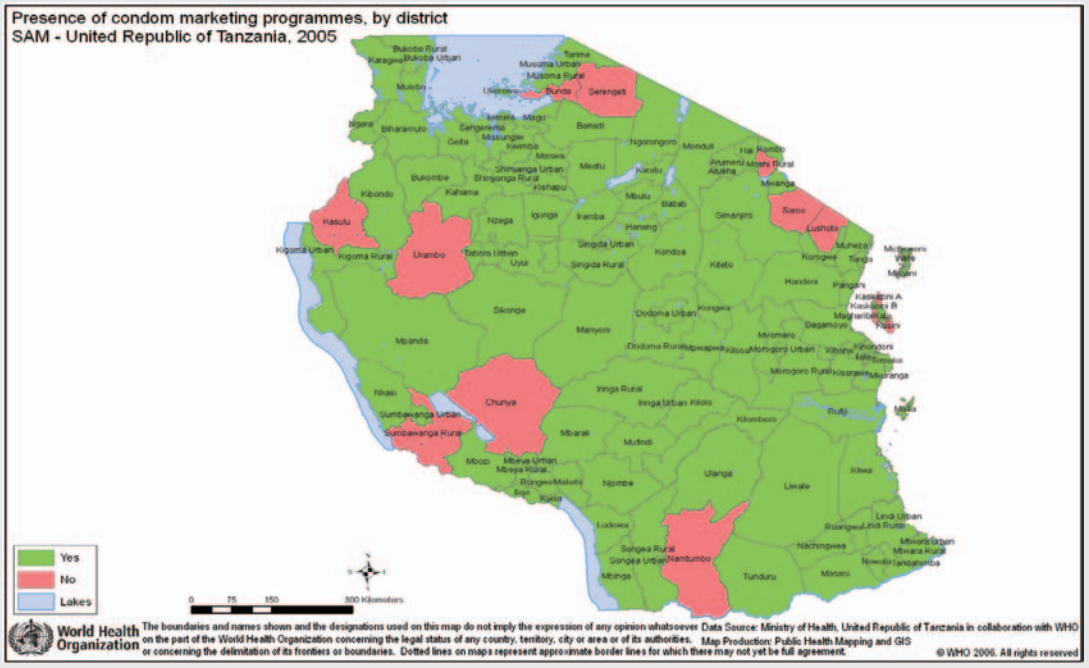
HIV counselling and testing is more widely available; only two districts indicated that they did not have such services in any facility and almost two thirds of districts had at least four service-delivery points for counselling and testing.

Community HIV/AIDS treatment and care programmes are operating in most districts. In 44 per cent of districts there were at least four health facilities that supported such community programmes.

Education in HIV prevention was also common; 45 per cent of districts said that all facilities provide such services and 47 per cent said that more than half of facilities provide these services. INH prophylaxis is recommended for the prevention of tuberculosis among people infected with HIV/AIDS. Although the majority of districts (78 per cent) did not provide such services at all, five districts reported that all facilities were implementing this policy.

Social marketing programmes for condoms have penetrated into most districts of the United Republic of Tanzania. Thirteen districts reported that there was no social marketing of the Salama brand condoms (10.2 per cent) (Figure 5.6).

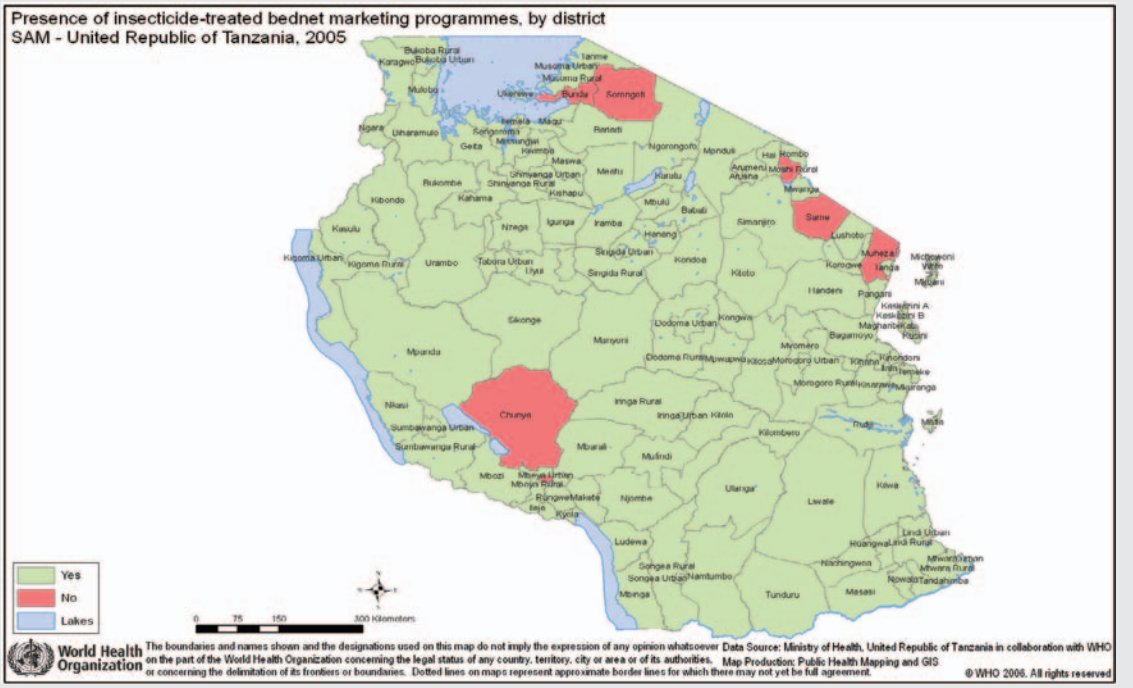
FIGURE 5.6 DISTRICT COVERAGE OF SOCIAL MARKETING PROGRAMMES FOR CONDOMS



5.6 Service provision: malaria

Social marketing programmes of bednets have penetrated virtually all districts of the United Republic of Tanzania. Only seven districts indicated that there was no social marketing of bednets (Figure 5.7).

FIGURE 5.7 DISTRICT COVERAGE OF SOCIAL MARKETING PROGRAMMES FOR BEDNETS



The coverage of the programme for indoor spraying of insecticides was also estimated by district teams: 69 per cent of districts responded that no households were benefiting from such a programme, 30 per cent said less than half of the households and only one district (Ilala in Dar es Salaam region) reported coverage exceeding 50 per cent.

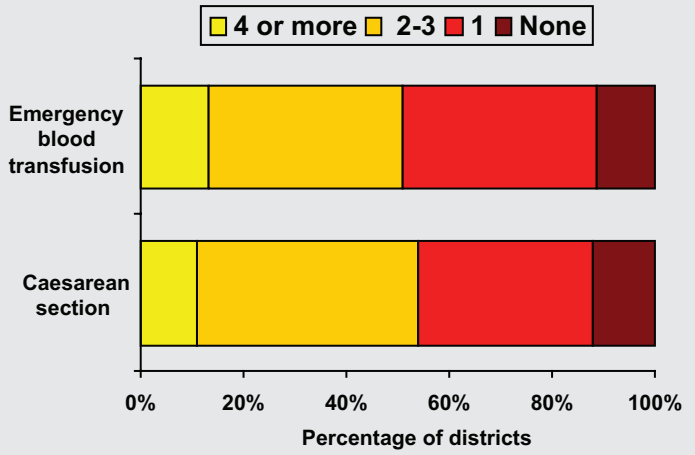
All district staff were specifically asked for each facility to indicate whether microscopy to diagnose malaria could be performed. The majority of districts had at least 10 health facilities that could provide such services (54 per cent). Five districts reported having only one such facility.

5.7 Service provision: safe motherhood

One in ten districts had no health facility that could provide caesarean section (Figure 5.8). Similarly, 11 per cent of districts had no health facility that provided emergency blood transfusion.

Intermittent preventive therapy (IPT) to protect pregnant women against malaria is common in most districts. Half of the districts reported that all facilities provide IPT, and another 47 per cent reported that at least half of the facilities do so.

FIGURE 5.8 DISTRIBUTION OF DISTRICTS BY THE NUMBER OF HEALTH FACILITIES PROVIDING SPECIFIC SAFE MOTHERHOOD-RELATED SERVICES, TANZANIA SAM 2006



6. FACILITY CENSUS: HEALTH INFRASTRUCTURE

This chapter describes the results of facility censuses that were conducted in all eight districts of Mwanza region, all 10 districts in the five regions in Zanzibar, all three districts in Dar es Salaam region and in Kibaha district in Pwani region.

The Mwanza SAM was part of a comprehensive regional assessment conducted by the Regional Medical Office, TANESA and NIMR. A facility census was carried out in the districts of Dar es Salaam region because proxy reporting through the municipality or district health teams is generally incomplete in complex urban situations where the private sector is large. In Zanzibar, the facility census was conducted at the request of the health ministry. Kibaha district was primarily selected to compare the results obtained from the district health management team reports with those from the actual census of health facilities. Details of the comparison can be found in Annex C.

6.1 Background

Zanzibar

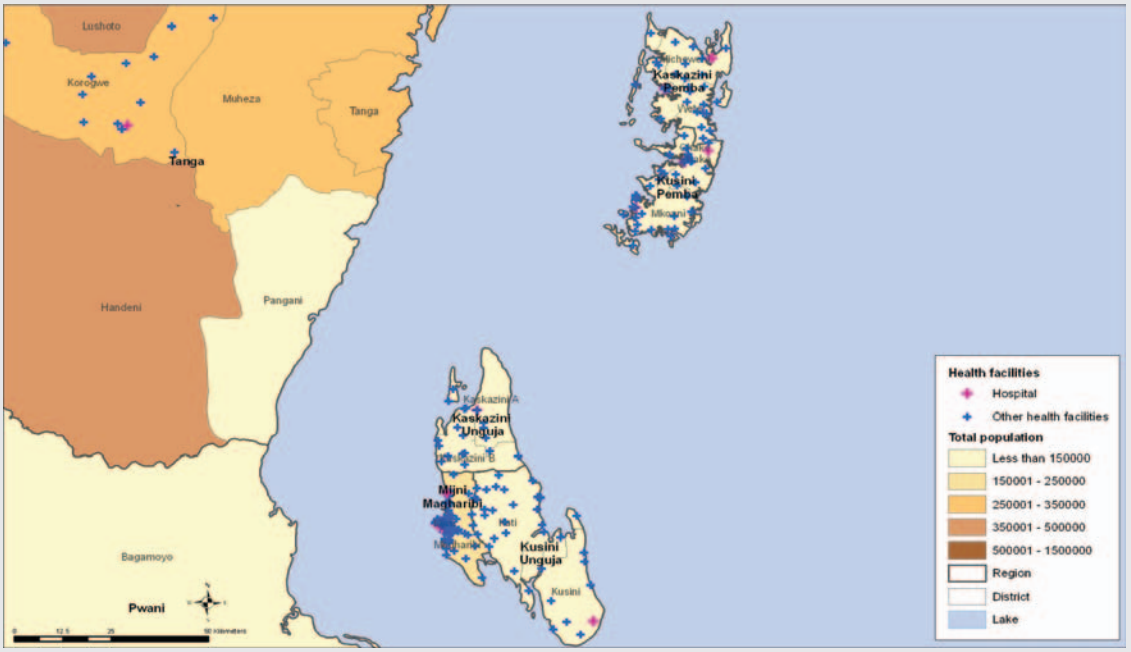
Zanzibar is part of the United Republic of Tanzania; it includes the two islands of Pemba and Unguja, which is often referred to as Zanzibar island. Zanzibar has five administrative regions and 10 districts. Each of these districts is divided into divisions (or constituencies) and wards (or *shehias*). Zanzibar has its own health ministry. The population of Zanzibar was estimated to be 1.1 million people in 2006. One third of the population lives in urban areas.

Health services in Zanzibar are centralized and the health ministry controls the budget and management of all resources in the sector. There are three levels of health services. The primary level of care is represented by dispensaries, primary health-care units and cottage hospitals. The second level of care is provided by district hospitals. There are only three district hospitals, all located in Pemba. The highest level of care includes specialized hospitals that provide emergency care and specialized services not offered at the secondary or primary level. There is currently one specialized referral hospital in Zanzibar, located in Unguja.

Mwanza region

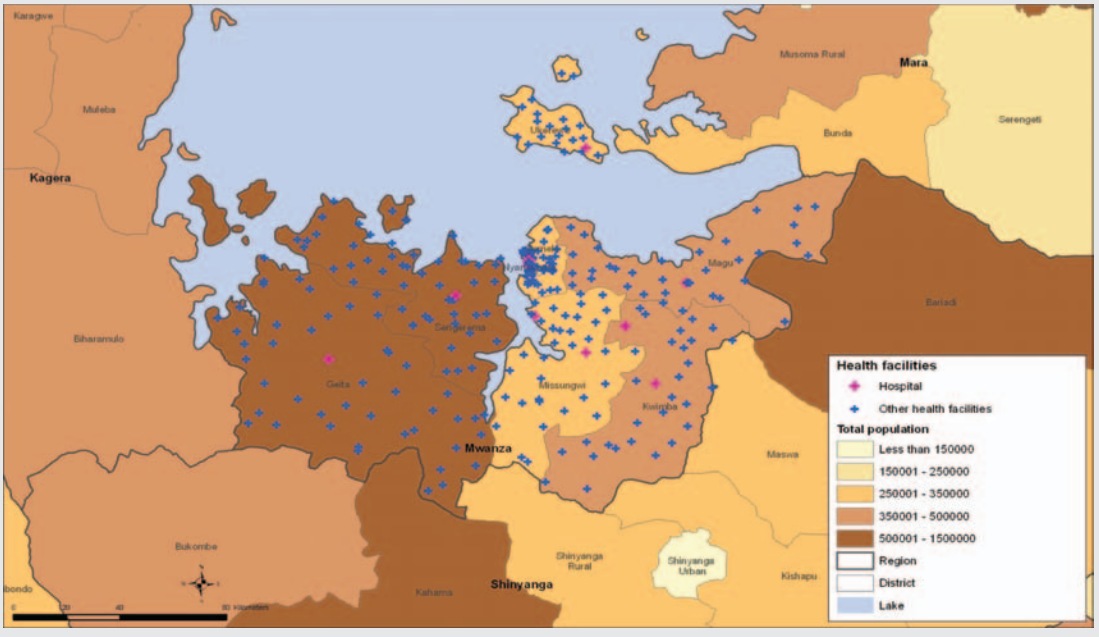
Mwanza region is situated in the north-western part of the United Republic of Tanzania bordering Lake Victoria and includes eight administrative districts. Six districts are predominantly rural (Geita, Kwimba, Magu, Misungwi, Kwimba, Sengerema, and Ukerewe) while two districts are urban, covering Mwanza City (Ilemela and Nyamagana). The administrative districts are composed of divisions, which are further divided into wards and villages. Mwanza region is one of the more densely populated regions of the United Republic of Tanzania. The estimated population by 2006 was just under 3 million, with almost half a million people living in the two districts of Mwanza city.

FIGURE 6.1 HEALTH FACILITIES, REGIONS AND DISTRICTS IN ZANZIBAR



Health services in mainland Tanzania are decentralized with considerable district level decision-making authority and resources. Like elsewhere, Mwanza region has a multi-tier system to provide services. Dispensaries and health centres provide the first and second levels of health care. The third level of care is provided by the district and regional hospital and the highest level of care is provided by one of four referral hospitals in the United Republic of Tanzania. One of those four facilities is the largest health facility in Mwanza region is Bugando Medical Centre, located in Mwanza city which is one of the four national referral hospitals. Mwanza is also a zonal training centre for health workers.

FIGURE 6.2 HEALTH FACILITIES AND DISTRICTS IN MWANZA REGION

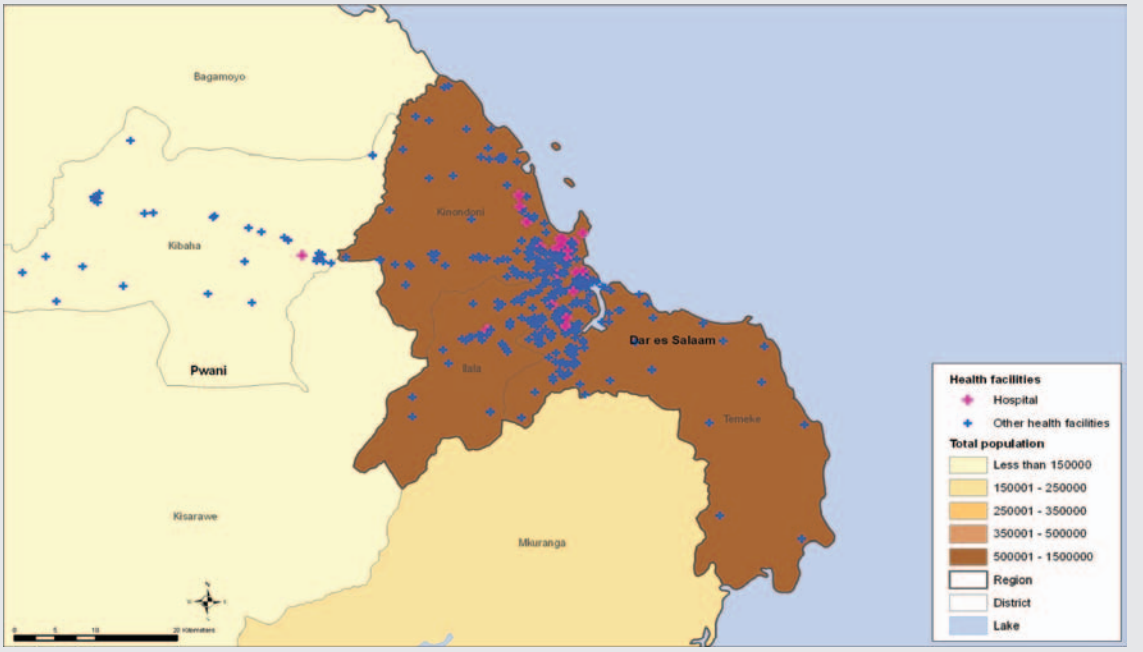


Dar es Salaam

Dar es Salaam is a city and a region, located on the east coast. It has three municipalities or districts, Ilala, Kinondoni, and Temeke. The estimated population of the city as a whole was 2.8 million in 2006. The public sector follows the same tiered system with dispensaries, health centres, district and referral hospitals as described for Mwanza region. The city has a mix of public and private health facilities and includes the national referral hospital, Muhimbili Medical Centre, with many specialist services.

The aim was to visit all health facilities in each of the selected districts. Pre-existing lists from the health ministry were used to identify facilities. Additional facilities were visited when identified by the survey team, which included district health staff. Special efforts were made to include private facilities.

FIGURE 6.3 HEALTH FACILITIES AND DISTRICTS IN DAR ES SALAAM REGION



6.2 Health facilities

Table 6.1 presents the distribution of health facilities in each district by type of facility—hospital, health centre, dispensary and other. The latter mostly includes parastatal facilities.

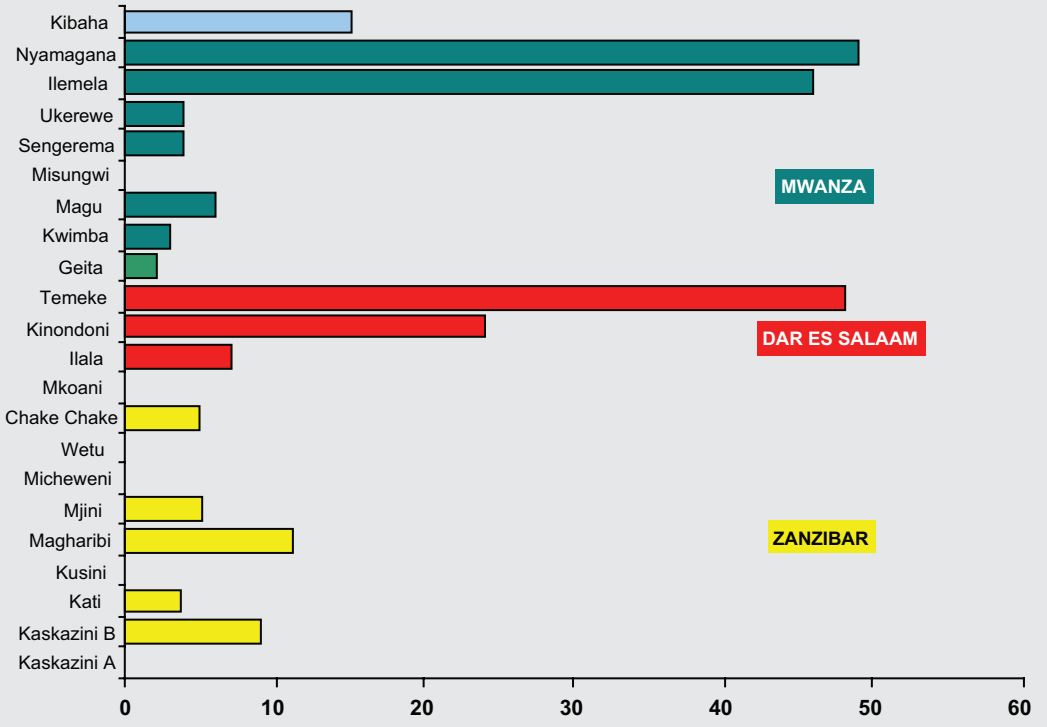
Overall, 1040 health facilities were visited, including 236 in Zanzibar, 430 in Dar es Salaam, 319 in Mwanza and 55 in Kibaha and Korogwe districts. The number of health facilities per 10 000 population varies from a low of less than one in several Mwanza districts to a high of 4.1 per 10 000 in Kati district in Unguja, Zanzibar. Among the rural districts, a density of about one facility for 10 000 people appears to be the norm in most districts. Among the urban districts the density is closer to 1.5 to 2 per 10 000 people and may be even higher depending on how successful the survey team was in capturing all private health facilities. It should also be noted that in some Mwanza region districts, such as Magu and Geita, a number of facilities could not be visited at the time of fieldwork for logistic problems during the fieldwork.

Table 6.1 Number of health facilities by type and ownership, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

		Type of facility				Ownership					
	Population	Hospital	Health centre	Dispensary	Other	Public	Priv. non-profit	Priv.	Other	Total	Density per 10 000
Zanzibar	***1 117 371***										
Ugunja Kaskazini	***155 250***	***1***	-	***19***	-	***16***	***3***	***1***	-	***20***	***1.3***
Kaskazini A	93 325	1	0	8	0	7	2	0	0	9	1.0
Kaskazini B	61 925	0	0	11	0	9	1	1	0	11	1.8
Unguja Kusini	***102 607***	***1***	-	***37***	-	***34***	***3***	***1***	-	***38***	***3.7***
Kati	67 879	0	0	28	0	24	3	1	0	28	4.1
Kusini	34 728	1	0	9	0	10	0	0	0	10	2.9
Mjini Magharibi	***435 992***	***6***	-	***89***	-	***33***	***53***	***7***	***2***	***95***	***2.2***
Magharibi	196 912	1	0	35	0	16	16	4	0	36	1.8
Mjini	239 080	5	0	54	0	17	37	3	2	59	2.5
Pemba Kaskazini	***216 174***	***2***	***2***	***36***	-	***36***	***4***	-	-	***40***	***1.9***
Micheweni	97 780	1	0	13	0	13	1	0	0	14	1.4
Wete	118 394	1	2	23	0	23	3	0	0	26	2.2
Pemba Kusini	***207 348***	***3***	***3***	***37***	-	***35***	***7***	***1***	-	***43***	***2.1***
Chake Chake	100 071	2	1	17	0	15	4	1	0	20	2.0
Mkoani	107 277	1	2	20	0	20	3	0	0	23	2.1
Mainland											
Dar es Salaam	***2 801 675***	***26***	***29***	***360***	***15***	***102***	***205***	***113***	***10***	***430***	***1.5***
Ilala	1 223 419	14	9	132	2	32	112	11	2	157	1.3
Kinondoni	713 958	9	14	87	9	27	59	28	5	119	1.7
Temeke	864 298	3	6	141	4	43	34	74	3	154	1.8
Mwanza	***2 980 931***	***12***	***32***	***266***	***6***	***246***	***26***	***47***	-	***319***	***1.1***
Rural	*2 498 072*	*8*	*26*	*201*	-	*210*	*18*	*7*	-	*235*	0.9
Geita	719 875	1	7	41	-	44	4	1	-	49	0.7
Kwimba	319 688	2	2	31	-	33	1	1	-	35	1.1
Magu	423 449	1	3	32	-	30	4	2	-	36	0.9
Misungwi	260 312	2	4	31	-	34	3	0	-	37	1.4
Sengerema	508 105	1	7	45	-	46	5	2	-	53	1.0
Ukerewe	266 643	1	3	21	-	23	1	1	-	25	0.9
Urban	*482 859*	*4*	*6*	*65*	*6*	*36*	*8*	*40*	-	*84*	*1.7*
Ilemela	269 918	1	4	28	2	15	4	16		35	1.3
Nyamagana	212 941	3	2	37	4	21	4	24		49	2.3
Other											
Kibaha	149 426	1	3	34	1	22	8	6	3	39	2.6

For each facility, the type of ownership was also determined: public, private non-profit (mostly faith-based organizations), private-for-profit and other. The latter also included those facilities for which the type of ownership was not clear and parastatal facilities. Public facilities account for the majority of health facilities with the exception of some urban districts. Figure 6.4 presents the proportion of all health facilities that are private-for-profit. Less than one in 10 facilities are private in almost all districts in Zanzibar and in rural Mwanza region, indicating that the private sector still plays a relatively small role in such settings. In Dar es Salaam and Mwanza city the situation is very different: in Temeke district and both districts of Mwanza city nearly half of all health facilities are private-for-profit.

FIGURE 6.4 PERCENTAGE OF FACILITIES THAT ARE PRIVATELY OWNED, FACILITY CENSUS, TANZANIA SAM 2006



6.3 Beds

The number of inpatient and maternity beds by district are shown in Table 6.2. The national average number of beds per 10 000 populations was 11.2 (see section 3.2 of this report). As expected, urban districts have a much higher hospital bed density than rural districts. For instance, the urban districts of Unguja island have 17 beds per 10 000 population, while the four rural districts have about two beds per 10 000. The bed density in Mwanza city is more than 30 per 10 000 population, while the six rural districts have about 13 per 10 000. The bed density in Dar es Salaam is lower than expected, most likely because of underreporting by large institutions such as the Muhimbili Medical Centre.

Table 6.2 Number and density of hospital beds, maternity beds and delivery beds by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Population	Inpatient beds	Maternity beds	Total	Dens per 10 000	Delivery beds	Dens per 100 000
Zanzibar							
Ugunja Kaskazini	*155 250*	*15*	*10*	*25*	*1.6*	*2*	*1.3*
Kaskazini A	93 325	15	10	25	2.7	2	0.21
Kaskazini B	61 925	0	0	0	-	0	-
Unguja Kusini	*102 607*	*18*	*9*	*27*	*2.6*	*3*	*2.9*
Kati	67 879	0	1	1	0.1	2	0.29
Kusini	34 728	18	8	26	7.5	1	0.29
Mjini Magharibi	*435 992*	*651*	*99*	*750*	*17.2*	*18*	*4.1*
Magharibi	196 912	45	6	51	2.6	2	0.10
Mjini	239 080	606	93	699	29.2	16	0.67
Pemba Kaskazini	*216 174*	*124*	*19*	*143*	*6.6*	*5*	*2.3*
Micheweni	97 780	13	3	16	1.6	2	0.20
Wete	118 394	111	16	127	10.7	3	0.25
Pemba Kusini	*207 348*	*204*	*53*	*257*	*12.4*	*11*	*5.3*
Chake Chake	100 071	130	35	165	16.5	4	0.40
Mkoani	107 277	74	18	92	8.6	7	0.65
Mainland							
Dar es Salaam	*2 801 675*	*3846*	*819*	*4665*	*16.7*	*464*	*16.6*
Ilala	1 223 419	1040	194	1234	10.1	69	0.56
Kinondoni	713 958	1959	466	2425	34.0	296	4.15
Temeke	864 298	847	159	1006	11.6	99	1.15
Mwanza	*2 980 931*	*3048*	*756*	*3804*	*12.8*	*415*	*13.9*
Rural	*2 498 072*	*1675*	*600*	*2275*	*9.1*	*343*	*13.7*
Geita	719 875	267	188	455	6.3	69	*9.6*
Kwimba	319 688	344	103	447	14.0	43	*13.5*
Magu	423 449	159	75	234	5.5	62	*14.6*
Misungwi	260 312	260	91	351	13.5	44	*16.9*
Sengerema	508 105	490	85	575	11.3	81	*15.9*
Ukerewe	266 643	155	58	213	8.0	44	*16.5*
Urban	*482 859*	*1373*	*156*	*1529*	*31.7*	*72*	*14.9*
Ilemela	269 918	210	33	243	*9.0*	24	*8.9*
Nyamagana	212 941	1163	123	1286	60.4	48	22.5
Other							
Kibaha	149 426	315	79	394	26.4	33	2.2

Table 6.2 also summarizes the number of delivery beds and the density of beds per 100 000 population. Notable are the relatively much higher numbers for Dar es Salaam and Mwanza regions compared with Zanzibar.

6.4 Water supply

At each facility visit a question was asked about the main source of water. The sources were divided into piped water, an improved water source (protected well or spring), and not improved water source. The latter includes unprotected spring or well, surface water and tanker truck. Rainwater is generally considered to be an improved source of water supply, but for health facilities it was considered to be inadequate, given the highly unreliable rainfall in most of the United Republic of Tanzania and the high demand for a continuous supply of safe water in health facilities.

Table 6.3 shows the main source of water for health facilities by district. The proportion of facilities with non-improved and therefore potentially unsafe water sources is shown in Figure 6.5. In Zanzibar, piped water is the predominant source of water and the proportion of facilities using non-improved sources is smaller than in the mainland districts. In Dar es Salaam, up to one quarter of facilities make use of non-improved water sources, mainly water obtained from tanker trucks for which the source is often unknown. In Mwanza region, most rural districts have unsafe water supplies, with at least 50 per cent of facilities depending on non-improved sources. The situation in Kibaha district is slightly better, but one third of facilities still have no improved water source.

FIGURE 6.5 PERCENTAGE OF FACILITIES THAT HAVE NON-IMPROVED / UNSAFE SOURCES OF WATER SUPPLY, ZANZIBAR, DAR ES SALAAM, MWANZA AND KIBAHA DISTRICT, TANZANIA SAM 2006

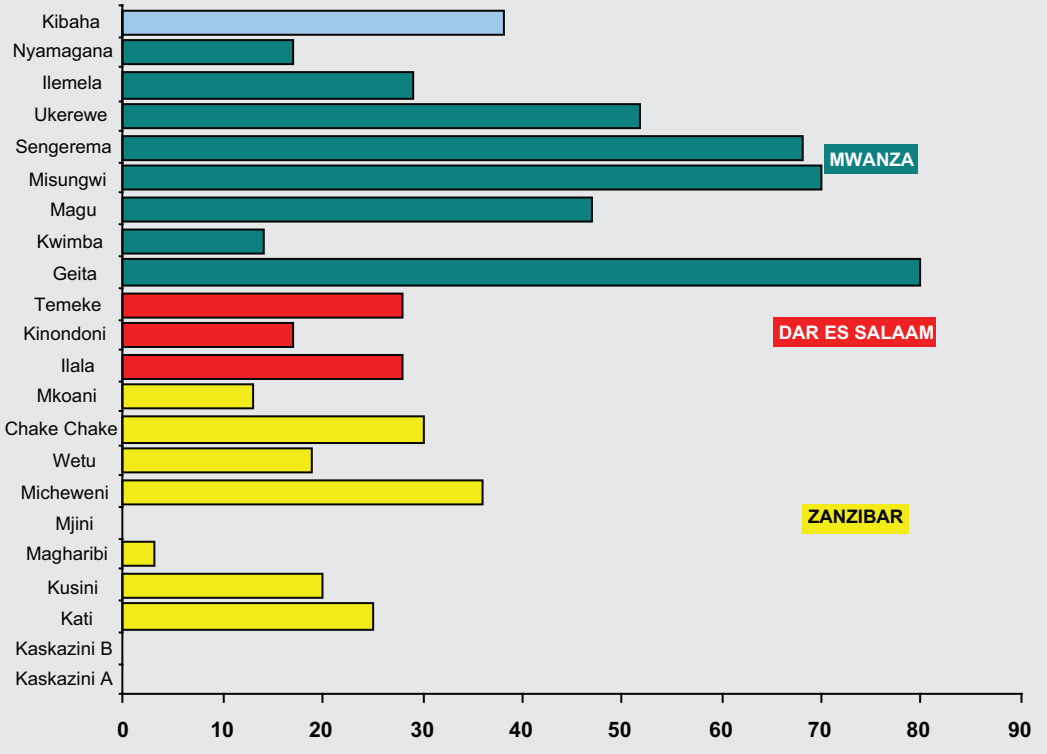


Table 6.3 Source of water supply and presence of functioning communications equipment by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Source of water supply					Information technology					
	Total facilities	Piped	Improved	Not improved	% not improved	Telephone	Mobile phone	SW radio	Computer	Internet	% no communication
Zanzibar											
Ugunja Kaskazini	*20*	*19*	*1*	-	*0*	*4*	*14*	*1*	*1*	*1*	*20*
Kaskazini A	*9*	8	1	0	0	2	6	0	0	0	22
Kaskazini B	**11**	11	0	0	0	2	8	1	1	1	18
Unguja Kusini	*38*	*25*	*4*	*9*	*24*	*3*	*33*	*1*	*2*	-	*13*
Kati	*28*	17	4	7	25	3	24	1	1	0	14
Kusini	**10**	8	0	2	20	0	9	0	1	0	10
Mjini Magharibi	**95**	**89**	**5**	**1**	*1*	**31**	**92**	**3**	**12**	**4**	**2**
Magharibi	**36**	31	4	1	3	9	36	2	2	0	-
Mjini	**59**	58	1	0	0	22	56	1	10	4	3
Pemba Kaskazini	*40*	*30*	-	*10*	*25*	*1*	*12*	-	-	-	*68*
Micheweni	*14*	9	0	5	36	0	4	0	0	0	71
Wete	26	21	0	5	19	1	8	0	0	0	65
Pemba Kusini	*43*	*33*	*1*	*9*	*21*	*4*	*25*	*1*	*2*	-	*40*
Chake Chake	20	14	0	6	30	4	14	0	1	0	30
Mkoani	23	19	1	3	13	0	11	1	1	0	48
Mainland											
Dar es Salaam	*430*	*229*	*94*	*107*	25	*105*	*398*	*24*	*104*	*9*	*6*
Ilala	157	113	0	44	28	28	149	13	43	3	5
Kinondoni	119	69	30	20	17	58	110	7	39	3	2
Temeke	154	47	64	43	28	19	139	4	22	3	10
Mwanza	*319*	*83*	*88*	*148*	*46*	*52*	*196*	*26*	*31*	*15*	*35*
Rural	235	*19*	*80*	*136*	58	*18*	*121*	*17*	*15*	*6*	*45*
Geita	49	1	9	39	80	2	18	4	2	2	61
Kwimba	35	2	28	5	14	6	20	5	6	4	31
Magu	36	3	16	17	47	3	22	0	1	0	36
Misungwi	37	4	7	26	70	1	6	2	1	0	81
Sengerema	53	8	9	36	68	4	40	3	3	0	23
Ukerewe	25	1	11	13	52	2	15	3	2	0	40
Urban	84	*64*	*8*	*12*		*34*	*75*	*9*	*16*	*9*	*7*
Ilemela	35	24	5	6	17	11	32	1	7	2	3
Nyamagana	49	40	3	6	12	23	43	8	9	7	10
Other											
Kibaha	39	24	3	12	31	4	35	2	3	0	10

6.5 Communications

The availability of communications equipment and computers in each health facility was assessed by asking about the presence of functioning telephone (landline and cellular), short wave radio, computer, and Internet connection. Table 6.3 presents the results and also summarizes the proportion of health facilities that have no adequate communications equipment at all, i.e. no functioning telephone or shortwave radio.

In all districts, cellular phones have become the main means of communication. They outnumber landline telephones in every district. Shortwave radios are not a common tool for communication. There are still, however, a significant proportion of health facilities with no communications facilities at all. In particular, the districts of Pemba island and rural Mwanza are poorly equipped. For instance, 65 per cent of the facilities in Wete district on Pemba and 81 per cent of the facilities in Misungwi district in Mwanza region have no communications equipment.

On the other hand, the overwhelming majority of health facilities in Unguja island, Dar es Salaam and urban Mwanza districts have means of communication at their disposal. Also in Kibaha district, the situation appears to be much better than in rural Mwanza or Pemba island districts.

An increasing number of health facilities were reported to have a computer. In Zanzibar, 17 out of 236 facilities (7 per cent) had a computer, including 10 in urban Zanzibar Mjini. Five of the 17 health facilities had an Internet connection. In Dar es Salaam, 104 facilities (24 per cent) were reported to have a computer, but only nine of these had Internet facilities. In Mwanza districts, just 31 facilities (10 per cent) had a computer, but nearly half of these had an Internet connection.

7. FACILITY CENSUS: HEALTH EQUIPMENT AND DRUGS

7.1 Hospital equipment

In 42 hospitals, questions were asked about the presence of functioning key equipment including X-ray machines, oxygen supply equipment, autoclave, intravenous infusion kits, operating theatre, anaesthesia equipment, cytoflowmeter (for CD4 cell counts), haemocytometer (for blood cell counts), ambulance and incinerator. The results are presented by facility in Table 7.1 (the green cells mean equipment present and reportedly functioning).

Table 7.1 Presence of functioning key equipment in hospitals by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

District	Name hospital	Owner	X-ray	Oxy-gen	Auto-clave	IV infu-sion	Thea-tre	Anaes-thesia	Cyto-flow meter	Hemo-cyto-meter	Ambu-lance	Incine-rator
Zanzibar												
Kaskazini A	Kivunge cottage	Pub			■	■	■	■			■	■
Kusini	Makunduchi Cottage	Pub	■	■	■	■	■				■	■
Magharibi	Bububu jeshini	Pub			■	■	■				■	
Mjini	Mwembeladu	Pub			■		■					
	Al Rahma	Priv	■	■	■	■	■	■	■	■	■	■
	Mnazi Mmoja	Pub	■	■	■	■	■		■	■	■	■
	Marie Stopes	Pri		■	■	■	■	■			■	■
Micheweni	Cottage	Pub									■	
Wete	Wete	Pub	■	■	■		■	■			■	■
Chake Chake	Chake Chake	Pub	■	■	■			■			■	■
	VItongoji Cottage	Pub			■							
Mkoani	Mzee Abdalla	Pub	■	■	■						■	
Mainland												
Dar es Salaam												
Ilala	St Bernard	NGO	■	■	■	■	■	■		■	■	■
	Muhimbili	Pub	■	■	■	■	■	■	■	■	■	■
	Amana	Pub	■	■	■	■	■	■	■	■	■	■
	TMS	NGO		■	■	■	■	■		■		■
	Hindulmandal	Pri	■	■	■	■	■	■	■	■	■	■
	KK Khan	Pri	■	■	■	■	■	■	■	■	■	■
	Cardinal Rugabwa	Pri	■	■	■	■	■	■		■	■	■
	Regency Med Centre	NGO	■	■	■	■	■	■	■	■	■	■

District	Name hospital	Owner	X-ray	Oxy-gen	Auto-clave	IV infu-sion	Thea-tre	Anaes-thesia	Cyto-flow meter	Hemo-cyto-meter	Ambu-lance	Incine-rator
	Tumaini	NGO	■	■	■	■	■	■		■		
Kinondoni	Heart Institute	NGO	■	■	■	■	■	■		■	■	■
	TMJ	NGO	■	■	■	■	■	■	■	■	■	■
	CCBRT	Priv	■	■	■	■	■	■		■	■	■
	Lugalo Military	Pub	■	■	■	■	■	■	■	■	■	■
	IMTU	NGO	■	■	■	■	■	■		■	■	■
	Mwananyamala	Pub	■	■	■	■	■	■	■	■	■	■
	Kinondoni	NGO	■	■	■	■	■	■		■		
	Emilio Mzena	Pub		■	■	■	■	■	■	■	■	■
	Mount Ukombozi	NGO	■	■	■	■	■	■		■		■
	Oysterbay	NGO	■	■	■	■	■	■	■	■	■	■
	Mikumi	NGO	■	■	■	■	■	■		■		■
	Massana MHS	NGO	■	■	■	■	■	■		■		■
	Marie Stopes	Priv	■	■	■	■	■	■			■	■
	Mikocheni	NGO	■	■	■	■	■	■	■	■	■	
Temeke	Bandari HC	Oth		■	■	■	■	■		■	■	
	Temeke	Pub	■	■	■	■	■	■	■	■	■	■
	TOHS-Dar group	Pri	■	■	■	■	■	■		■	■	■
	Walter	NGO		■	■	■	■	■				■
Mwanza												
Geita	Geita	Pub	■	■	■	■	■	■			■	■
Kwimba	Sumve	NGO	■	■	■	■	■	■	■		■	■
	Ngudu	Pub	■	■	■	■	■	■	■			■
Magu	Magu	Pub	■	■	■	■	■				■	■
Misungwi	Bukumbi	NGO	■	■	■	■	■	■	■			■
	Misungwi	Pub		■	■		■	■		■		■
Sengerema	Sengerema	Pub	■	■	■	■	■	■			■	■
Ukerewe	Nansio	Pub	■		■	■	■				■	
Ilemela	Army	Pri	■	■	■	■	■	■			■	■
Nyamagana	Sekou Toure	Pub	■	■	■	■	■	■	■	■	■	■
	Bugando Med Cen	Pub	■	■	■	■	■	■	■	■	■	■
	Mwananchi	Pri	■	■		■	■	■	■		■	■
Other												
Kibaha	Tumbi	Other	■	■	■	■	■	■	■	■	■	■

In general, hospitals in Zanzibar are less adequately equipped than those in the mainland. The bigger referral public hospitals such as Muhimbili Medical Centre and Bugando Medical Centre have all equipment. Some private facilities such as Al Rahma hospital in Zanzibar and KK Khan hospital in Dar es Salaam have the full array of equipment for emergency care and other services.

7.2 Basic equipment

The availability of basic equipment in health facilities, excluding hospitals, is summarized in Table 7.2. This includes a blood pressure machine, stethoscope, thermometer, weighing scales for children aged less than five years (Salter) and for adults, latex gloves and refrigerator. In Mwanza region's districts no question on thermometer was included. Questions were also asked about the availability of a microscope and slides.

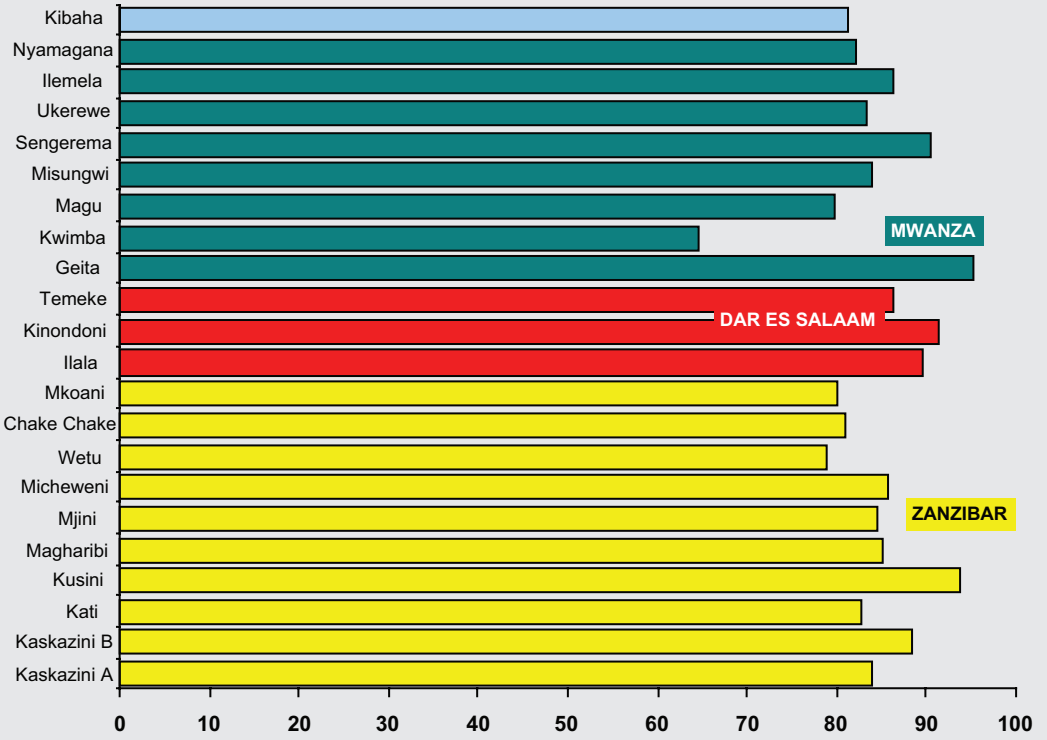
Table 7.2 Availability of basic equipment in health facilities (excluding hospitals) by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	BP meter	Stetho-scope	Thermo-meter	Child scale	Adult scale	Latex gloves	Refrig-erator	Basic items score	Micro-scope	Slides	Number
Zanzibar											
Ugunja Kaskazini											
Kaskazini A	100.0	100.0	100.0	62.5	87.5	87.5	50.0	**83.9**	62.5	37.5	8
Kaskazini B	81.8	100.0	90.9	81.8	100.0	90.9	72.7	**88.3**	36.4	27.3	11
Unguja Kusini											
Kati	82.1	85.7	96.4	82.1	92.9	100.0	42.9	**82.7**	35.7	35.7	28
Kusini	100.0	100.0	88.9	100.0	100.0	100.0	66.7	**93.7**	22.2	22.2	9
Mjini Magharibi											
Magharibi	97.1	94.3	94.1	65.7	82.9	88.6	74.3	**84.9**	68.6	68.6	35
Mjini	96.2	92.5	94.3	43.4	90.6	98.1	86.8	**84.4**	86.8	88.7	54
Pemba Kaskazini											
Micheweni	84.6	76.9	84.6	92.3	100.0	84.6	76.9	**85.7**	15.4	15.4	13
Wete	84.0	84.0	88.0	68.0	88.0	84.0	56.0	**78.9**	12.0	12.0	25
Pemba Kusini											
Chake Chake	94.4	94.4	72.2	72.2	88.9	94.4	50.0	**81.0**	27.8	27.8	18
Mkoani	72.7	90.9	81.8	59.1	95.5	90.9	68.2	**79.9**	27.3	22.7	22
Mainland											
Dar es Salaam											
Ilala	100.0	100.0	100.0	64.0	97.1	100.0	97.8	**89.5**	97.1	97.1	143
Kinondoni	100.0	100.0	99.1	60.9	98.2	97.3	82.7	**91.2**	87.3	89.1	110
Temeke	88.7	96.0	98.0	66.2	92.1	95.3	68.2	**86.2**	83.3	84.8	151
Mwanza											
Rural											
Geita	100.0	100.0	-	91.7	91.6	89.6	97.9	**95.1**	29.2	27.1	48
Kwimba	88.2	63.6	-	75.8	54.6	81.8	75.8	**64.6**	27.3	18.2	33
Magu	36.4	88.6	-	88.6	74.3	80.0	85.7	**79.5**	25.7	22.9	35
Misungwi	60.0	80.0	-	94.3	77.1	82.9	91.4	**83.8**	20	20	35
Sengerema	90.4	100.0	-	96.2	80.8	96.2	78.9	**90.4**	30.8	26.9	52
Ukerewe	70.8	87.5	-	87.5	70.8	91.7	91.7	**83.3**	29.2	29.2	24
Urban			-								
Ilemela	88.2	94.1	-	76.5	88.2	97.1	73.5	**86.3**	73.5	76.5	34
Nyamagana	91.3	91.3	-	76.1	84.8	89.1	58.7	**81.9**	73.9	73.9	46
Other											
Kibaha	86.8	86.8	97.4	63.2	92.1	86.8	55.3	**81.2**	55.3	52.6	38

The basic equipment is available in most health facilities, but there are some notable exceptions. For instance, in Magu district only 36 per cent of facilities reported having a working blood pressure meter. In Kwimba district, only 64 per cent of facilities had a stethoscope. Less than half of the health facilities in Mjini district in Zanzibar had a child-weighing scale. Half of facilities in Chake Chake district in Pemba, Zanzibar, had no refrigerator. In all districts, at least 80 per cent of facilities had latex gloves in stock.

To summarize the availability of basic equipment, a summary score was constructed for the seven items listed above (six for Mwanza region). The score indicates the facility mean of the maximum number, expressed as a percentage, of the seven items in each district. For instance, a score of 86 per cent means that an average of six out of the seven items were available. Figure 7.1 presents the score by district.

FIGURE 7.1 BASIC EQUIPMENT AVAILABILITY SCORE BY DISTRICT,[a] FACILITY CENSUS, ZANZIBAR, MWANZA, DAR ES SALAAM AND KIBAHA DISTRICT, TANZANIA SAM 2006



[a] The basic equipment availability score indicates the facility mean of the maximum available number, expressed as a percentage, of seven items of basic equipment in each district (six in Mwanza region). These items include a blood pressure machine, stethoscope, thermometer, weighing scales for children aged less than five years (Salter) and for adults, latex gloves and refrigerator. A higher score indicates that a larger proportion of the basic items were available on average.

In most districts in Zanzibar, scores were about 80 per cent or higher, with one district, Kusini, exceeding 90 per cent. The three districts of Dar es Salaam had scores of about 90 per cent. Scores in Mwanza region were much more variable. The situation in Kwimba district is clearly poorer than elsewhere, with a score of only 65 per cent. At the other end, Geita district has a score of 95 per cent. The urban district of Nyamagana had an unexpectedly low score, mainly caused by the relatively low proportion of health facilities with refrigerators.

The basic equipment score was also examined by type of ownership of each facility (Table 7.3). In general, there were modest differences between public, private and NGO health facilities. In

Mwanza region, NGO facilities had the highest score (92 per cent), followed by private (87 per cent) and public (83 per cent). In Zanzibar, the private facilities (only eight) had the highest score and there was little difference between public and NGO facilities. In Dar es Salaam, the public facilities had the highest scores.

Table 7.3 Mean basic equipment score for health facilities (excluding hospitals) by type of facility ownership, Zanzibar, Dar es Salaam and Mwanza, Tanzania SAM 2006

	Zanzibar		Dar es Salaam		Mwanza	
	N	Mean	N	Mean	N	Mean
Public	143	82.0	96	92.6	238	82.7
NGO	70	84.7	190	87.0	23	92.0
Private	8	96.4	108	88.8	46	87.3
Other	2		10			
Total	223	83.5	404	88.7	307	84.1

7.3 Infection control

The preceding sections provided some information on the extent to which the basic tools of infection control are present in facilities, such as a water source and availability of gloves. Table 7.4 provides further information on the method of sterilization for medical equipment, the availability of needles and syringes, disinfectant and training of health workers in infection control.

There is considerable variation between districts in terms of the method of sterilization used. In Zanzibar, sterilization with a boiling pot is the most common method used in all districts except Mjini and Kaskazini A (both use autoclaves). Sterilizers are common in some districts, while pressure sterilizers are common only in Kusini and Micheweni districts.

In Ilala and Kinondoni districts in Dar es Salaam region, autoclave and sterilizers are found in about 90 per cent of facilities. In Temeke, however, boiling pots are still commonly used (30 per cent of facilities).

In Mwanza region, the boiling pot is the predominant sterilization method in four rural districts, but in two rural districts (Geita and Misungwi) sterilizers are more common. Boiling pots are also commonly used in Mwanza city districts. Similarly, more than half of the facilities in Kibaha use boiling pots.

On average, 86 per cent of facilities had a stock of needles and syringes that would last at least one week. Several districts, however, had a considerably larger proportion of facilities with no such stock. This included Mjini, Mkoani and Chake Chake in Zanzibar, Temeke district in Dar es Salaam, and Ukerewer in Mwanza, where less than 70 per cent of facilities had a stock that would last at least one week.

Table 7.4 Infection control: method of sterilization and availability of needles, disinfectant and health workers trained in infection control by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

		Method of sterilization							
	Total facilities	Auto-clave	Pres-sure pot	Steril-izer	Boiling pot	Other	Needles (stock >1 week)	Disin-fectant	Trained staff
Zanzibar									
Ugunja Kaskazini	*20*								
Kaskazini A	*9*	33.3	0.0	22.2	22.2	22.2	100.0	87.5	11.1
Kaskazini B	*11*	0.0	0.0	18.2	72.7	9.1	100.0	100.0	0.0
Unguja Kusini	*38*								
Kati	*28*	3.6	3.6	32.1	35.7	25.0	92.9	96.4	0.0
Kusini	*10*	10.0	20.0	10.0	40.0	20.0	100.0	100.0	0.0
Mjini Magharibi	*95*								
Magharibi	*36*	16.7	5.6	27.8	36.1	13.9	83.3	86.1	8.6
Mjini	*59*	39.7	0.0	32.8	5.2	22.4	67.3	87.5	5.2
Pemba Kaskazini	*40*								
Micheweni	*14*	14.3	14.3	0.0	35.7	35.7	92.9	100.0	0.0
Wete	*26*	3.9	7.7	19.2	53.9	15.4	76.9	100.0	4.0
Pemba Kusini	*43*								
Chake Chake	*20*	25.0	0.0	25.0	45.0	5.0	65.0	85.0	5.0
Mkoani	*23*	8.7	4.4	0.0	87.0	0.0	56.5	90.9	8.7
Mainland									
Dar es Salaam	*430*								
Ilala	*157*	58.7	0.0	39.3	0.7	1.3	89.3	100.0	0.0
Kinondoni	*119*	31.1	1.7	55.5	4.2	7.6	98.3	100.0	0.0
Temeke	*154*	14.3	15.6	33.1	29.9	7.1	66.9	98.1	4.6
Mwanza	*319*								
Rural	*235*								
Geita	*49*	6.1	4.1	73.5	16.3	0.0	79.6	100.0	12.2
Kwimba	*35*	6.1	0.0	0.0	93.9	0.0	100.0	88.6	55.9
Magu	*36*	3.0	0.0	12.1	84.9	0.0	97.2	100.0	60.0
Misungwi	*37*	5.4	0.0	73.0	21.6	0.0	94.6	97.3	68.6
Sengerema	*53*	1.9	0.0	0.0	96.2	0.0	100.0	92.5	16.2
Ukerewe	*25*	0.0	0.0	0.0	100.0	0.0	68.0	96.0	0.0
Urban	*84*								
Ilemela	*35*	14.3	0.0	31.4	54.3	0.0	90.9	100.0	55.9
Nyamagana	*49*	17.4	8.7	32.6	26.1	13.0	86.7	93.9	40.8
Other									
Kibaha	*39*	7.9	0.0	31.6	55.3	5.3	94.9	43.6	0.0

Disinfectant fluids such as Lysol were available in more than 85 per cent of facilities in all districts except Kibaha, where only 44 per cent of facilities reported having any disinfectant. The last column of Table 7.4 presents the percentage of facilities in which any health worker had been trained in universal precautions during the last two years. There was little training activity in Zanzibar and Dar es Salaam district, but in Mwanza region training programmes appeared to be active. In four of the eight districts, more than half the facilities had at least one health worker who had been trained in universal precautions during the last two years. In some districts in Mwanza region, however, there was no training activity at all (e.g. Ukerewe).

7.4 Drugs and commodities

The availability of a selection of drugs and commodities was determined for every facility. No inquiries were made into the size of available stocks. The proportion of facilities where 11 selected drugs and commodities were in stock is shown in Table 7.5. Antihypertensive drugs have the poorest availability, followed by measles vaccine, oral contraceptives and condoms. First-line antimalarial drugs and oral antibiotics are most widely available.

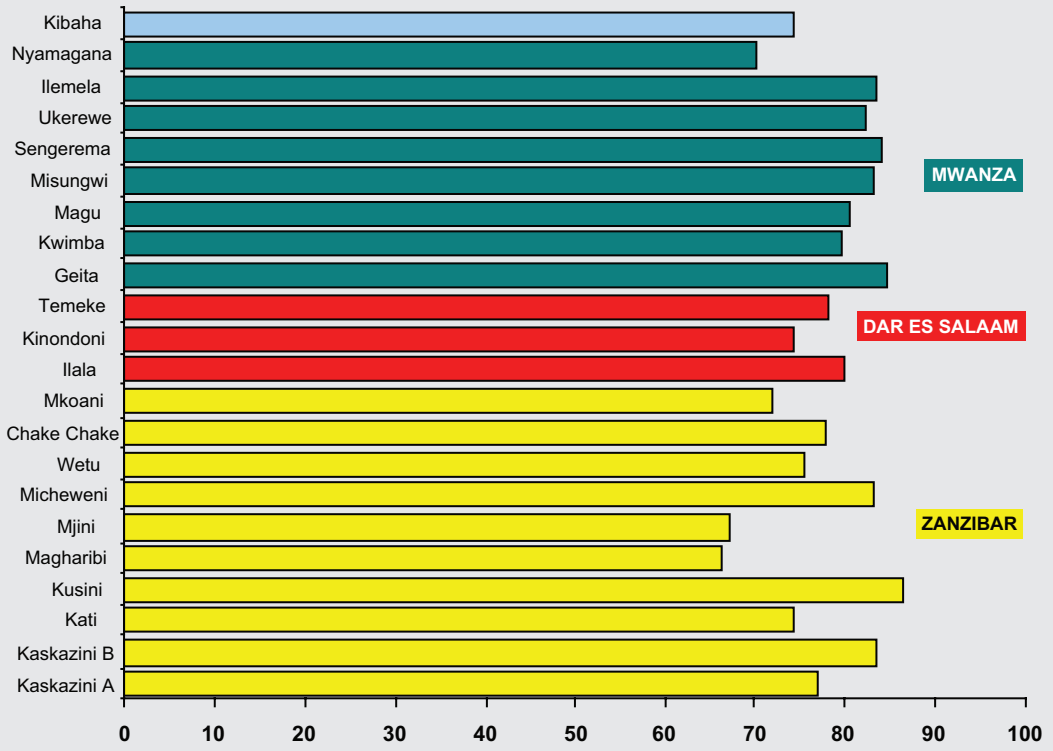
The information was summarized in an overall average of the availability of 11 selected drugs by district (Figure 7.2 and last column of Table 7.5). In Zanzibar, only three of the 10 districts scored higher than 80 per cent. The two urban districts of Unguja, Mjini and Magharibi, had the lowest scores. In Dar es Salaam districts, the average scores were just under 80 per cent and measles vaccine and oral contraceptives were the main contributors to lowering of the score. In Mwanza region, most districts scored more than 80 per cent. The urban district of Nyamagana had the lowest score, again mainly because of poor availability of measles vaccine and oral contraceptives.

In general, availability of the 11 drugs and commodities was better in public facilities than in private facilities (Table 7.6). The differences between the different types of ownership in Zanzibar are fairly small, but substantial in Mwanza and Dar es Salaam. In Dar es Salaam the average score for public facilities is high (92 per cent), especially when compared with the private sector, whether for profit or not (both 72 per cent). In Mwanza region, the availability score was also higher in public facilities (82 per cent) than in private and NGO facilities (76 and 79 per cent, respectively).

Table 7.5 Availability of selected drugs and commodities in health facilities by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Anti-biotics (inj)	Anti-biotics (oral)	Contra-ceptives (oral)	Iron supp.	Anti-hyper-tensives	Con-doms	Vita-min A	Measles vaccine	Anti-malarials (1st line)	Anti-malarials (2nd line)	ORS	Mean Score
Zanzibar												
Ugunja Kaskazini												
Kaskazini A	66.7	66.7	77.8	88.9	55.6	77.8	77.8	77.8	100.0	77.8	77.8	76.8
Kaskazini B	72.7	100.0	72.7	100.0	54.6	81.8	81.8	81.8	100.0	81.8	90.9	83.5
Unguja Kusini												
Kati	71.4	85.7	82.1	89.3	46.4	89.3	78.6	64.3	96.4	50.0	64.3	74.4
Kusini	100.0	90.0	100.0	100.0	60.0	90.0	100.0	90.0	90.0	30.0	100.0	86.4
Mjini Magharibi												
Magharibi	77.8	80.6	50.0	80.6	69.4	52.8	66.7	36.1	86.1	63.9	63.9	66.2
Mjini	87.9	93.0	44.8	77.6	77.6	36.2	56.9	32.8	86.2	77.6	82.8	67.2
Pemba Kaskazini												
Micheweni	85.7	71.4	85.7	85.7	28.6	92.9	100.0	78.6	100.0	100.0	85.7	83.1
Wete	73.1	76.9	69.2	96.2	23.1	76.9	73.1	69.2	100.0	96.2	76.9	75.5
Pemba Kusini												
Chake Chake	90.0	90.0	70.0	90.0	42.1	80.0	70.0	60.0	85.0	95.0	85.0	77.7
Mkoani	73.9	78.3	65.2	95.7	17.4	73.9	82.6	69.6	82.6	95.7	56.5	71.9
Mainland												
Dar es Salaam												
Ilala	99.3	99.3	50.7	94.7	84.0	76.0	76.7	48.7	96.7	96.0	96.7	79.8
Kinondoni	95.8	99.2	37.3	85.7	77.3	37.8	72.3	33.6	94.1	93.3	89.9	74.2
Temeke	99.4	99.4	62.1	77.3	78.6	50.7	72.6	54.6	97.4	81.7	88.3	78.2
Mwanza												
Rural												
Geita	95.9	91.8	95.9	85.7	26.5	93.9	93.9	85.7	79.6	87.8	93.9	84.6
Kwimba	88.6	88.6	82.9	88.6	25.7	82.9	85.7	80.0	88.6	77.1	85.7	79.5
Magu	94.4	97.2	80.6	91.7	30.6	52.8	88.9	80.6	91.7	91.7	86.1	80.6
Misungwi	89.2	89.2	94.6	91.9	29.7	86.5	91.9	94.6	86.5	81.1	81.1	83.3
Sengerema	94.3	96.2	83.0	96.2	30.2	90.6	96.2	71.7	90.6	83.0	94.3	84.2
Ukerewe	92.0	84.0	88.0	92.0	24.0	80.0	88.0	96.0	96.0	88.0	76.0	82.2
Urban												
Ilemela	100.0	100.0	74.3	91.4	62.9	68.6	71.4	51.4	100.0	97.1	100.0	83.4
Nyamagana	85.7	89.8	46.9	73.5	61.2	51.0	49.0	36.7	91.8	93.9	91.8	70.1
Other												
Kibaha	94.9	89.7	59.0	84.6	30.8	71.8	69.2	46.2	97.4	89.7	84.6	74.4
District average	**88**	**89**	**71**	**89**	**47**	**72**	**79**	**65**	**93**	**83**	**84**	**78**

FIGURE 7.2 DRUGS AND COMMODITIES AVAILABILITY SCORE,[a] FACILITY CENSUS, TANZANIA SAM 2006



[a] The drugs and commodities availability score indicates the facility mean of the percentage of the maximum available number of eleven selected drugs and commodities in each district.

Table 7.6 Mean basic drugs and commodities score for health facilities (excluding hospitals) by type of facility ownership, Zanzibar, Dar es Salaam and Mwanza, Tanzania SAM 2006

	Zanzibar		Dar es Salaam		Mwanza	
	N	Mean	N	Mean	N	Mean
Public	143	77.7	96	92.0	246	81.8
NGO	70	62.1	190	71.7	26	78.7
Private	8	75.0	108	72.0	47	75.5
Other	2		10	72.7		
Total	223	72.7	404	76.6	319	80.6

8. FACILITY CENSUS: HUMAN RESOURCES

8.1 Doctors, nurses and midwives

The numbers of doctors, assistant medical officers (AMOs), clinical officers, nurses and midwives and medical attendants employed were obtained from each facility and are summarized in Table 8.1. Both full-time and part-time doctors (counted as 0.5 doctors) were included. The density was computed for doctors and AMOs combined.

The distribution of doctors is highly uneven, with very few working in rural districts. Dar es Salaam, Mwanza and Mjini Unguja district have considerable numbers of doctors and AMOs. Clinical officers greatly outnumber doctors and AMOs.

The distribution of nurses and midwives shows a similar pattern. The results from the Mwanza SAM may not be completely comparable with those from other districts as different questions were used. Only in Mwanza were separate questions asked about registered and enrolled nurses and about registered and enrolled midwives: 42 per cent of all nurses were enrolled and 56 per cent of all midwives were enrolled. In facilities in all other districts, questions were asked only about the number of nurses and number of nurse-midwives. The extent to which enrolled nurses and midwives were included is not known.

The skills mix (last column of Table 8.1) is defined as the number of nurses and midwives per doctor or AMO. The lowest skills mix ratios, about 3 : 1, are found in Dar es Salaam districts. In Zanzibar, urban districts in Unguja island, Chake Chake and Mkoani on southern Pemba have skills mix ratios of between 5 and 10, while all others have ratios greater than 10. In Mwanza, the two urban districts and two rural districts (Magu and Geita) have skills mix ratios of about 5, all other districts have ratios greater than 10. In Ukerewe district, the shortage of doctors is evident in the ratio of 26 nurses and midwives for one doctor. Kibaha district has a skills mix ratio of about 5.

Table 8.1 Number of doctors, assistant medical officers (AMOs), clinical officers, nurses, midwives and medical attendants in health facilities by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Population	Doctor	AMO	Clinical Officer	Tot (doc + AMO)	Dens per 10 000	Mid-wife	Nurse	Med att	Total (Midwife + Nurse)	Dens per 10 000	Skills mix
Zanzibar												
Ugunja Kaskazini	*155 250*											
Kaskazini A	93, 325	0	2	4	2	0.2	28	2	14	30	3.2	15.0
Kaskazini B	61, 925	0	1	2	1	0.2	29	2	19	31	5.0	31.0
Unguja Kusini	*102 607*											
Kati	67 879	2	1	7	3	0.4	35	8	41	43	6.3	17.2
Kusini	34 728	0	1	3	1	0.3	28	4	34	32	9.2	32.0
Mjini Magharibi	*435 992*											
Magharibi	196 912	5	13	60	18	0.9	73	11	72	84	4.3	4.8
Mjini	239 080	31	26	100	57	2.4	367	50	385	417	17.4	7.3
Pemba Kaskazini	*216 174*											
Micheweni	97 780	1	0	3	1	0.1	18	10	42	28	2.9	28.0
Wete	118 394	4	5	8	9	0.8	70	21	69	91	7.7	10.1
Pemba Kusini	*207 348*											
Chake Chake	100 071	6	10	14	16	1.5	56	29	107	85	8.5	5.5
Mkoani	107 277	6	2	6	8	0.7	40	30	78	70	6.5	8.8
Mainland												
Dar es Salaam	*2 801 675*											
Ilala	1 223 419	207	68	429	275	2.2	428	299	516	727	5.9	2.6
Kinondoni	713 958	451	70	236	521	7.3	492	709	1254	1201	16.8	2.3
Temeke	864 298	35	81	399	116	1.3	342	111	675	453	5.2	3.9
Mwanza	*2 980 931*											
Rural	*2 498 072*	*21*	*36*	*310*	57	0.2	*373*	*230*	*838*	603	2.4	10.7
Geita	719 875	9	7	61	16	0.2	65	33	208	98	1.4	6.1
Kwimba	319 688	3	7	38	10	0.3	85	81	104	166	5.2	16.6
Magu	423 449	3	9	57	12	0.3	49	17	143	66	1.6	5.5
Misungwi	260 312	3	3	55	6	0.2	47	22	76	69	2.7	11.5
Sengerema	508 105	1.5	7	72	9	0.2	80	20	193	100	2.0	11.8
Ukerewe	266 643	1	3	27	4	0.2	47	57	114	104	3.9	26.0
Urban	*482 859*	*154*	*86*	*117*	240	5.0	*419*	*702*	*454*	1121	23.2	4.7
Ilemela	269 918	13	16	56	29	1.1	82	65	59	147	5.4	5.1
Nyamagana	212 941	141	70	61	211	9.9	337	637	395	974	45.7	4.6
Other												
Kibaha	149 426	16	21	72	37	2.4	120	45	212	165	11.0	4.5

8.2 Other cadres

The numbers of health workers of various other cadres are shown in Table 8.2. In Mwanza region, the questionnaire applied was more limited than elsewhere. Laboratory technicians were concentrated in urban areas, as they are often associated with large health facilities. The numbers of pharmacists and pharmaceutical technologists were very small, except in Mwanza region, and may have been underreported. Zanzibar had only nine pharmacists and 19 pharmaceutical technologists, mostly based in Mjini. More strikingly, only 19 pharmacists were reported for Dar es Salaam, which suggests that many pharmacists work entirely in private pharmacies and are not directly associated with any health facility. There were also 20 technologists in Dar es Salaam.

In Mwanza region, 59 pharmacists and pharmaceutical technologists were reported. Unlike in other districts, the questionnaire applied in this region did not distinguish between the two cadres. The urban and rural numbers were about the same, but because the population sizes differ by fivefold, this implies that relatively there were five times as many pharmacists and technologists in Mwanza city as in the rural districts of Mwanza region.

No dentists were reported at facility visits in Zanzibar, but private dental practices were not included in the SAM. Facility censuses in Zanzibar district registered 14 dental technicians. In Dar es Salaam, 28 dentists and 59 dental technicians were recorded. This implies that there was about one dentist per 100 000 population in the capital city.

Health information officers and health management secretaries were rare. Social workers were only commonly reported in Mwanza region. Village health workers who were associated with a health facility were reported in fairly large numbers in rural Mwanza districts, Temeke district and Kibaha district. It is not clear how active these cadres are. Zanzibar facilities had no village health workers, but did report large numbers of traditional birth attendants, especially in rural districts.

HIV counsellors were found in a minority of facilities. In Zanzibar, only 42 facilities had a counsellor, mostly in urban districts in Unguja. In Dar es Salaam, 108 HIV counsellors were reported. In the Mwanza region, there were 85 HIV counsellors in two urban districts and 63 in the six rural districts. The health facility reports on the number of village health workers and traditional birth attendants are likely to be incomplete.

Table 8.2 Number of laboratory technicians, pharmacists, pharmaceutical technologists, dentists, dental technicians, health information officers, health management secretaries, HIV counsellors, village health workers, social workers and traditional birth attendants in health facilities by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Population	Lab techn	Pharm	Pharm techn	Den-tist	Dental techn.	Info off.	Health secr.	HIV coun-sellor	VHW	Social worker	TBA
Zanzibar												
Ugunja Kaskazini	*155 250*											
Kaskazini A	93 325	0	0	0	0	1	0	0	0	0	0	32
Kaskazini B	61 925	0	0	1	0	0	0	0	0	0	0	96
Unguja Kusini	*102 607*											
Kati	67 879	4	0	0	0	3	1	0	8	0	0	116
Kusini	34 728	2	0	0	0	1	0	0	1	2	0	57
Mjini Magharibi	*435 992*											
Magharibi	196 912	2	1	3	0	2	0	0	11	0	1	69
Mjini	239 080	38	3	9	0	5	2	0	16	0	0	1
Pemba Kaskazini	*216 174*											
Micheweni	97 780	0	0	0	0	0	0	0	0	0	0	253
Wete	118 394	1	2	1	0	1	0	0	0	0	0	461
Pemba Kusini	*207 348*											
Chake Chake	100 071	6	3	1	0	1	0	0	4	0	0	263
Mkoani	107 277	1	0	0	0	0	0	0	2	0	0	253
Mainland												
Dar es Salaam	*2 801 675*											
Ilala	1 223 419	66	6	4	7	22	4	2	20	5	5	54
Kinondoni	713 958	65	12	6	18	17	5	2	44	42	7	181
Temeke	864 298	32	1	10	3	20	9	0	44	258	2	258
Mwanza	*2 980 931*											
Rural	*2 498 072*	*78*	*29*						*63*	*1342*	*52*	
Geita	719 875	13	5						12	348	10	
Kwimba	319 688	11	5						10	312	0	
Magu	423 449	12	5						3	209	38	
Misungwi	260 312	13	8						26	177	2	
Sengerema	508 105	24	5						6	187	0	
Ukerewe	266 643	5	1						6	109	2	
Urban	*482 859*	*83*	*30*						*85*	*70*		
Ilemela	269 918	38	8						32	54	30	
Nyamagana	212 941	45	22						53	16	9	
Other												
Kibaha	149 426	4	1	0	1	1	2	0	9	153	1	89

8.3 Presence of health workers

The presence of health workers on the day of interview can be used an indicator of the quality of care. The interviewers asked how many members of selected cadres of health workers were working at the facility and how many were working at the facility on the day of the visit. To collect such data from hospitals requires considerable time and effort since it involves checking at multiple wards and clinics unless there is a central system for monitoring attendance. Therefore, data from hospitals were excluded from the analysis.

Table 8.3 shows the number and percentage of doctors/AMOs and nurses/midwives who were present on the day of interview. Figure 8.1 summarizes the data for the three regions since numbers are small. In all three regions the presence of nurses and midwives was considerably higher than that of doctors and assistant medical officers. Facilities in Dar es Salaam had the lowest rates of presence for doctors/AMOs (36 per cent) and for nurses/midwives (52 per cent). Zanzibar and Mwanza region had similar staff presence rates: about half of the doctors/AMOs were present on the day of interview and about 70 per cent of nurses and midwives.

FIGURE 8.1 PROPORTION OF HEALTH WORKERS WORKING IN THE FACILITY ON THE DAY OF INTERVIEW, TANZANIA SAM 2006

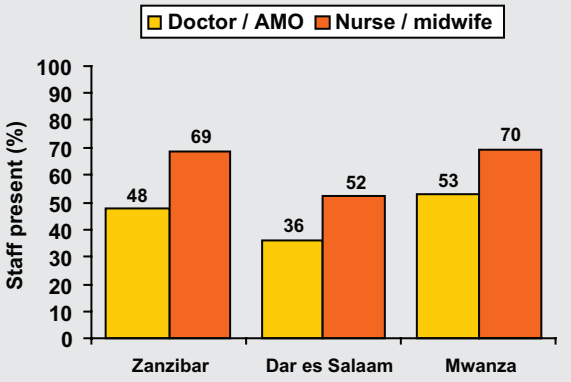


Table 8.3 Number and proportion of doctors, assistant medical officers (AMOs), nurses and midwives working on the day of interview in health facilities by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Doctor + AMO	Present (N)	Present (%)	Nurse + midwife	Present (N)	Present (%)
Zanzibar						
Ugunja Kaskazini	**57**	**27**	**47.8**	**404**	**277**	**68.6**
Kaskazini A	1	1	100.0	14	10	71.4
Kaskazini B	1	1	100.0	31	21	67.7
Unguja Kusini						
Kati	3	1	40.0	43	27	62.8
Kusini	0	0		19	13	68.4
Mjini Magharibi						
Magharibi	16	6	35.5	78	45	57.7
Mjini	22	14	61.4	82	50	61.0
Pemba Kaskazini						
Micheweni	1	0	0.0	22	19	86.4
Wete	3	0	0.0	43	35	81.4
Pemba Kusini						
Chake Chake	10	5	52.6	32	24	75.0
Mkoani	1	0	0.0	40	33	82.5
Mainland						
Dar es Salaam	**348**	**126**	**36.2**	**1141**	**598**	**52.4**
Ilala	148	38	25.7	493	195	39.6
Kinondoni	129	71	55.0	346	254	73.4
Temeke	71	17	23.9	302	149	49.3
Mwanza	**87**	**46**	**52.9**	**477**	**332**	**69.6**
Rural	*15*	*4*	27.6	172	129	*75.0*
Geita	9	1	11.1	39	31	*79.5*
Kwimba	1	0	0.0	30	20	*66.7*
Magu	4	2	57.1	21	13	*61.9*
Misungwi	0	0		13	8	*61.5*
Sengerema	1	1	100.0	31	30	*96.8*
Ukerewe	0	0		38	27	*71.1*
Urban	*73*	*42*	57.9	305	203	*66.6*
Ilemela	25	20	80.0	123	77	*62.6*
Nyamagana	48	22	46.3	182	126	*69.2*
Other						
Kibaha	18	10	55.6	63	30	47.6

8.4 Training of health workers

Health workers can be exposed to wide range of training courses. In the United Republic of Tanzania, 18 types of courses were identified for the SAM questionnaire. The SAM version used in Mwanza was slightly shorter. Table 8.4 shows the percentage of facilities in which at least one health worker had been trained in each one of the specified courses in the last two years. These included five maternal and child health/family planning/sexual health courses (IMCI, safe motherhood; adolescent sexual and reproductive health; family planning and control of sexually transmitted infections); four HIV/AIDS-related courses (AIDS treatment and care, ART, prevention of mother-to-child transmission, HIV counselling); five courses related to other diseases (DOTS for tuberculosis, clinical diagnosis and treatment of malaria, laboratory diagnosis of malaria, mental health and diabetes management); and four general courses (drug management, health management information systems—for which the acronym in Kiswahili is MTUHA—universal precautions, and health service management).

The specific results on coverage of each type of training course will be analysed in the disease-specific sections in the following chapters. The focus in this chapter is on the general results related to training intensity by district and by type of training (bottom row and last column of Table 8.4).

The five most common types of training course attended by at least one member of staff in a facility were tuberculosis DOTS (mean of all districts, 56 per cent of facilities had at least one staff member trained), control of sexually transmitted infections (51 per cent), IMCI (48 per cent), family planning (45 per cent), and safe motherhood (40 per cent). The five least common types of training course were diabetes management (7 per cent), ART (8 per cent), management of health services (8 per cent), universal precautions/infection control (14 per cent) and PMTCT (14 per cent).

Among districts in Zanzibar, training intensity ranged from less than 20 per cent in Mjini and Wete to 41 per cent in Kusini district. Overall, training activity in Zanzibar was lower than in Mwanza, while Dar es Salaam districts have similarly low training activity, with intensity being lowest in Kinondoni (17 per cent).

In Mwanza region, training intensity was much higher, with only two district averages being less than 30 per cent and three greater than 50 per cent. Kibaha district in Pwani has the lowest level of training activity of all districts (12 per cent).

The mean training intensity summary score (mean of the proportion of facilities with at least one staff member trained in 18 subject areas) proportion of facilities that is presented by type of ownership of the health facility and by region in Table 8.5. In both Zanzibar and Dar es Salaam, public facilities are much more likely to report that someone has attended a specific training course. For instance, in Zanzibar the average training intensity score was 26 per cent for public facilities and 13 per cent for private not-for-profit facilities. In Dar es Salaam the differences were even larger. In Mwanza region, however, where training intensity was much higher, the gap between the public and private sector was considerably reduced; staff at public facilities had only a slightly greater exposure to training than do private facilities, whether NGOs or private-for-profit facilities.

Table 8.4 **Proportion of health facilities with at least one health worker trained in each one of the specific courses in the last two years, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006**

		MCH/FP/STI					HIV/AIDS				TB /Malaria/NCD						General		
	N	SM	IMCI	ASRH	FP	STI	Ca-re	Cns	PMTCT	ART	DOTS	Mal Clin	Mal Lab	Mental	Diabetes	Drugs	HMIS	Inf control	Mng	Mean
Zanzibar																				
Ugunja Kaskazini	***20***																			
Kaskazini A	***9***	43	56	11	56	33	22	22	11	11	78	22	22	22	11	33	0	11	11	26
Kaskazini B	***11***	55	55	0	45	45	64	55	20	9	82	27	18	9	9	40	27	0	18	32
Unguja Kusini	***38***																			
Kati	***28***	29	63	4	36	50	32	30	11	0	74	14	11	11	4	48	4	0	7	24
Kusini	***10***	60	70	20	90	90	60	50	10	10	90	30	40	30	10	30	40	0	0	41
Mjini Magharibi	***95***																			
Magharibi	***36***	32	40	14	40	42	49	44	31	22	64	39	50	14	14	22	17	9	8	31
Mjini	***59***	22	12	14	19	36	29	32	16	7	25	21	41	9	14	14	4	5	7	18
Pemba Kaskazini	***40***																			
Micheweni	***14***	79	64	14	86	57	7	29	0	0	93	7	7	0	7	0	29	0	0	27
Wete	***26***	27	77	8	50	36	12	27	4	4	73	12	4	4	4	0	0	4	0	19
Pemba Kusini	***43***																			
Chake Chake	***20***	47	58	10	53	45	21	55	5	5	60	15	10	15	10	0	5	5	0	23
Mkoani	***23***	39	45	0	30	74	13	39	9	0	74	9	4	4	4	13	0	9	0	20

		MCH/FP/STI					HIV/AIDS				TB /Malaria/NCD						General			
	N	SM	IMCI	ASRH	FP	STI	Ca-re	Cns	PMTCT	ART	DOTS	Mal Clin	Mal Lab	Mental	Diabetes	Drugs	HMIS	Inf control	Mng	Mean
Mainland																				
Dar es Salaam																				
Ilala	***157***	25	21	1			16	93	21		21	13	19			21	75	0	9	26
Kinondoni	***119***	17	16	11	22	17	20	25	22	12	18	31	19	20	7	14	25	0	14	17
Temeke	***154***	13	33	14	39	34	29	23	28	12	33	36	18	27	6	9	58	5	10	24
Mwanza																				
Rural	***235***																			
Geita	***49***	65	84	22	59	84	4	6	4			86		78		88	71	12		51
Kwimba	***35***	66	77	31	57	89	9	3	14			89		66		91	83	56		56
Magu	***36***	60	29	75	34	50	53	46	0			64		54		71	17	60		47
Misungwi	***37***	0	3	22	43	16	14	3	16			14		68		86	3	69		27
Sengerema	***53***	25	45	25	8	25	11	2	0			55		45		85	47	16		30
Ukerewe	***25***	68	80	16	68	88	8	12	0			80		72		80	96	0		51
Urban	***84***																			
Ilemela	***35***	49	66	54	69	*80*	60	31	43			80		29		*63*	*83*	56		59
Nyamagana	***49***	27	37	25	33	57	45	33	35			63		24		31	62	41		39
Other																				
Kibaha	***39***	18	26	8	13	15	23	31	21	10	3	21	8	3	3	5	5	0	10	12
Mean		39	48	18	45	51	27	31	15	8	56	38	19	29	8	38	34	16	7	32

SM: Safe Motherhood; IMCI: Integrated Management of Childhood Illness; ASRH: Adolescent Sexual and Reproductive Health; FP: Family Planning; STI: Sexually Transmitted Infection control; Care: HIV/AIDS treatment and care; Cns: HIV Counselling; PMTCT: Prevention of Mother-to-Child Transmission; ART: Antiretroviral Therapy; DOTS: Directly observed treatment, short course; MalClin Clinical diagnosis of malaria; Malab: Laboratory diagnosis of malaria; Mental: Mental health management; Diabetes: Diabetes Management; Drugs: drug management; HMIS: health management information system; Inf: control universal precautions against infections; Mng: Health service management.

Table 8.5 Mean training intensity summary score for health facilities (all types) by type of facility ownership, Zanzibar, Dar es Salaam, Mwanza, Tanzania SAM 2006

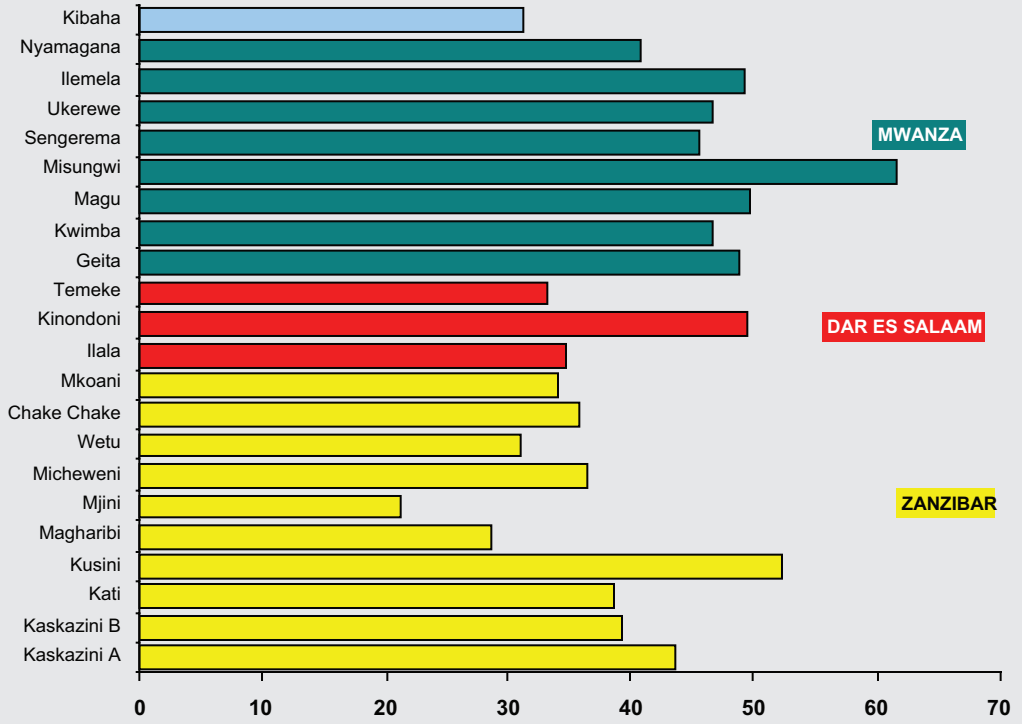
	Zanzibar		Dar es Salaam		Mwanza	
	N	Mean	N	Mean	N	Mean
Public	154	26.4	102	37.2	246	37.9
NGO	70	13.1	205	11.1	26	32.8
Private	10	18.7	113	17.4	47	33.9
Other	2		10	14.7		
Total	236	22.0	430	19.1	319	36.9

8.5 Presence of guidelines

In each facility, enquiries were made about the presence of specific guidelines, which form the basis for standard practice. It is noted that this does not imply the guidelines were properly implemented but having the guidelines is considered the first necessary condition to proper practices. This included 13 types of guidelines: IMCI, malaria control, AIDS care and treatment, ART, PMTCT, HIV counselling and testing, tuberculosis-leprosy, tuberculosis-HIV, Integrated Management of Adult Illness (IMAI), family planning, treatment of sexually transmitted infections (STI), mental health, diabetes mellitus, and health information (MTUHA). Five of the 13 guidelines are related to HIV/AIDS. In Mwanza region, tuberculosis-leprosy guidelines were not included in the SAM questionnaire.

Overall, Zanzibar had the lowest availability of guidelines: an average of 31.8 per cent of the maximum of 13 guidelines were available. The availability scores were lowest in the two urban districts. In Dar es Salaam, the average for the three districts was 38.2 per cent, mostly owing to the better availability of guidelines in Kinondoni district. In Mwanza region, the availability score was 48.2 per cent of 12 guidelines, with Misungwi district having a score of greater than 60 per cent.

FIGURE 8.2 MEAN SCORE OF GUIDELINE AVAILABILITY IN HEALTH FACILITIES,[a] BY DISTRICT, ZANZIBAR, MWANZA, DAR ES SALAAM AND KIBAHA DISTRICT, TANZANIA SAM 2006



[a] The guideline availability score indicates the district mean of the maximum number of available guidelines (expressed as a percentage) of 13 selected health guidelines in each facility (12 in Mwanza region).

Table 8.6 shows the guidelines availability score by type of ownership for Zanzibar, Dar es Salaam and Mwanza. Public facilities have the highest level of guidelines availability. In Dar es Salaam the score is 58 per cent. Private-for-profit facilities have considerably lower scores but in Zanzibar and Dar es Salaam private not-for-profit facilities are worse off.

Table 8.6 Mean score of guideline availability in health facilities, by district, by type of facility ownership, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Zanzibar		Dar es Salaam		Mwanza	
	N	Mean	N	Mean	N	Mean
Public	154	39.9	124	58.9	246	50.6
NGO	70	15.1	213	28.1	26	40.7
Private	10	28.5	119	32.3	47	40.1
Other	2	19.2	13	42.0		
Total	236	31.9	469	37.8	319	48.2

9. FACILITY CENSUS: DISEASE-SPECIFIC SERVICES

9.1 Malaria

The availability of a wide range of services related to the diagnosis, prevention and treatment of malaria was assessed in each facility (Table 9.1). IMCI guidelines and training include a significant malaria component and were incorporated in the assessment.

Table 9.1 Topics related to malaria control and inclusion in minimum standard analysis, Tanzania SAM 2006

Category	Topic	Standard clinical	Standard clinical with laboratory diagnosis
Guidelines	Malaria clinical management	⊙	⊙
	Malaria laboratory diagnosis		
	IMCI	⊙	⊙
Training	Malaria management	⊙	⊙
	Malaria laboratory diagnosis		
	IMCI	⊙	⊙
Treatment	First and second line	•	•
	ACT		
Prevention	ITN vouchers		
	IPT for pregnant women		
Laboratory	Microscope and slide		
	Giemsa stain done on site		•
	Hb test		
⊙	Standard met if one of the two are present		
•	Included in standard		

ACT: artemisinin combination therapy; Hb: haemoglobin;
IMCI: Integrated Management of Childhood Illness;
IPT: intermittent preventive therapy; ITN: insecticide-treated bednet.

Table 9.2 summarizes the proportion of health facilities that are equipped with malaria-related items by district. The last two columns show the proportion of facilities that meet the clinical standard with or without on-site laboratory diagnosis (by blood slide) according to the criteria shown in Table 9.1.

Table 9.2 Availability / presence of malaria-related guidelines, trained staff, treatment, prevention and laboratory aids in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	G'lines malaria	G'lines IMCI	Train clin.	Train lab	Train IMCI	1st 2nd line drugs	ACT	Micro-scope slides	Giemsa stain slide	Hb test	Bednet voucher	IPT	Stand. Clin.	Stand. Clin & lab
Zanzibar														
Ugunja Kaskazini														
Kaskazini A	88.9	77.8	22.2	22.2	55.6	77.8		55.6	22.2	88.9	0.0	100.0	33.3	0.0
Kaskazini B	100.0	90.9	27.3	18.2	54.6	81.8		90.9	0.0	90.9	36.4	100.0	54.6	9.1
Unguja Kusini														
Kati	85.7	78.6	14.3	10.7	63.0	46.4		75.0	0.0	57.1	3.6	100.0	32.1	10.7
Kusini	100.0	100.0	30.0	40.0	70.0	20.0		70.0	30.0	70.0	40.0	100.0	20.0	0.0
Mjini Magharibi														
Magharibi	88.9	40.0	38.9	50.0	40.0	58.3		47.2	2.8	75.0	2.8	75.0	33.3	19.4
Mjini	77.6	39.7	20.7	41.4	12.1	69.5		39.0	3.4	74.6	0.0	89.5	17.0	10.2
Pemba Kaskazini														
Micheweni	100.0	100.0	7.1	7.1	64.3	100.0		92.9	7.1	7.1	0.0	100.0	64.2	7.1
Wete	96.2	69.2	11.5	3.9	76.9	96.2		65.4	3.9	7.7	3.9	100.0	76.9	0.0
Pemba Kusini														
Chake Chake	95.0	70.0	15.0	10.0	57.9	80.0		60.0	10.0	35.0	0.0	100.0	45.0	5.0
Mkoani	95.7	87.0	8.7	4.4	45.5	82.6		82.6	4.4	21.7	0.0	100.0	34.8	0.0
Mainland														
Dar es Salaam														
Ilala	91.3	52.0	12.7	19.3	20.7	91.7		42.7	6.4	89.3	24.0	100.0	34.8	0.0
Kinondoni	96.6	38.7	31.4	19.1	17.0	93.3		35.3	3.4	85.6	29.7	80.0	21.7	14.7
Temeke	72.7	33.8	35.7	18.2	33.1	81.2		26.0	4.6	74.0	32.5	96.7	37.0	29.4
Mwanza														
Rural														
Geita	95.9	83.7	85.7			73.5	4.1	26.5	6.1	42.9	6.1	91.8	59.2	4.1

	G'lines malaria	G'lines IMCI	Train clin.	Train lab	Train IMCI	1st 2nd line drugs	ACT	Micro-scope slides	Giemsa stain slide	Hb test	Bednet voucher	IPT	Stand. Clin.	Stand. Clin & lab
Kwimba	88.6	68.6	88.6			77.1	0.0	17.2	2.9	12.9	11.4	85.7	68.6	0.0
Magu	100.0	83.3	63.9			86.1	0.0	22.2	11.1	16.7	5.6	77.8	55.5	11.1
Misungwi	97.3	89.2	13.5			75.7	0.0	16.2	10.8	16.2	2.7	91.9	16.2	2.7
Sengerema	86.8	75.5	54.7			79.3	15.4	26.5	20.8	14.0	0.0	83.0	51.0	7.6
Ukerewe	96.0	76.0	80.0			88.0	0.0	28.0	16.0	16.0	0.0	96.0	76.0	8.0
Urban														
Ilemela	82.9	51.4	80.0			97.1	48.6	71.4	60.0	54.3	5.7	57.1	85.7	40.0
Nyamagana	69.4	40.8	63.3			91.8	40.5	71.4	44.9	70.6	2.0	32.7	67.4	28.6
Other														
Kibaha	74.4	56.4	20.5	7.7	25.6	89.7		48.7	2.6	46.2	56.4	100.0	30.8	2.6

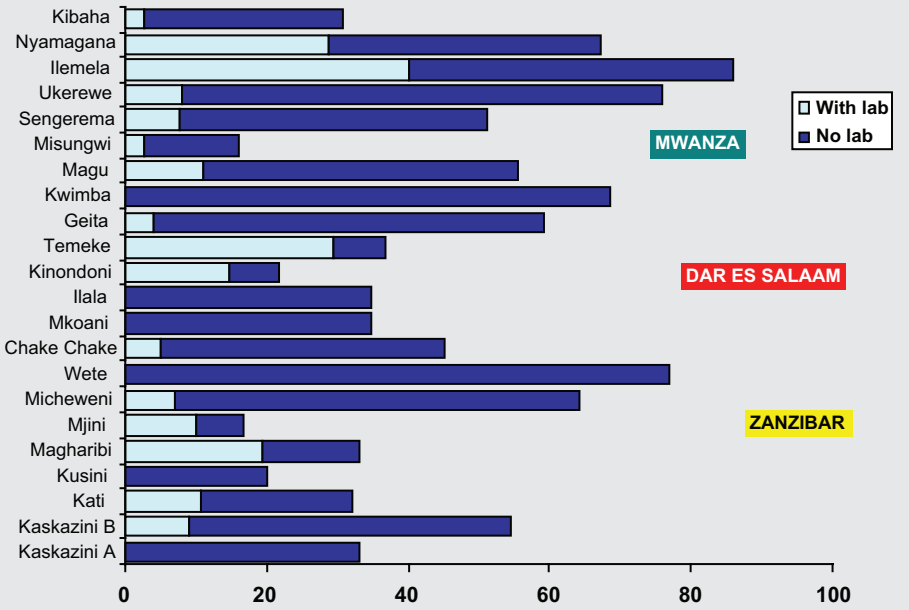
Standard Clinical care - guidelines (malaria or IMCI), trained person (malaria or IMCI), drugs.

Standard clinical care and lab - clinical plus ability to do Giemsa stain slide.

ACT: artemisinin combination therapy; Hb: haemoglobin; IMCI: Integrated Management of Childhood Illness; IPT: intermittent preventive therapy; ITN: insecticide-treated bednet.

Figure 9.1 also summarizes the district figures by met criteria. There is considerable variation between districts. In Zanzibar, only three of the 10 districts have more than half of the facilities meeting the clinical standard with drugs, guidelines and a trained person. In Dar es Salaam less than one third of clinics can provide malaria treatment services that meet the standard. In six of the districts in Mwanza region more than half of facilities meet the standard.

FIGURE 9.1 PERCENTAGE OF FACILITIES MEETING STANDARDS FOR DIAGNOSIS,[a] CARE AND TREATMENT OF MALARIA, BY DISTRICT, ZANZIBAR, MWANZA, DAR ES SALAAM AND KIBAHA DISTRICT, TANZANIA SAM 2006



[a] With or without on-site laboratory diagnosis by blood-stain slide.

The insecticide-treated bednet (ITN) voucher programme promotes the distribution and use of impregnated bednets by involving the private sector. The programme was still very young at the time of the SAM 2006. In Zanzibar, Kusini and Kaskazini B were the only districts in which more than one third of clinics offered such a programme. In Dar es Salaam districts, about 30 per cent of facilities had a voucher programme. In Mwanza districts, few facilities were offering ITN vouchers. In Kibaha, however, more than half of facilities had ITN vouchers.

Intermittent preventive therapy (IPT) during pregnancy (with Fansidar) was reportedly provided in almost every clinic in all districts. Only in the districts of Mwanza city, fewer clinics reported IPT use.

The availability of artemisinin combination therapy (ACT) was only assessed in facilities in the districts of Mwanza region. Virtually no rural facility had ACT at the time of the survey (late 2005). In urban Mwanza, however, nearly half of the facilities offered ACT.

9.2 Integrated Management of Childhood Illness (IMCI)

IMCI is a holistic approach to child health and disease and encompasses a wide range of diagnostic, preventive and treatment methods. Table 9.3 summarizes the key questions on availability that were included in the Tanzania SAM, and the eight items used to assess whether the minimum criteria or standard was met. It is noted that these items do not comprehend all elements of IMCI, implying that the full IMCI minimum standard score is lower than the scores presented in this analysis.

Table 9.3 Topics related to IMCI and inclusion in minimum standard analysis, Tanzania SAM 2006

Category	Topic	Standard clinical
Guidelines	IMCI guidelines management	•
Staff	At least one trained in last 2 years	•
Diagnosis	Child weighing scales	•
	Stethoscope	•
	Thermometer	
Laboratory diagnosis	Hb test	
	Stool parasite examination	
	Malaria blood slide	
Treatment	Oral rehydration salts	•
	Antimalarials (first- and second-line)	
	Antibiotics (injectable and oral)	•
Prevention	Vitamin A	•
	Bednets (vouchers)	
	Measles vaccine and refrigerator	•

IMCI: Integrated Management of Childhood Illness.

The results for some indicators have been presented in previous tables. Table 9.4 presents the four components of the minimum standard by district. It also includes the proportion of facilities that are able to offer on-site stool parasite examination.

Figure 9.2 summarizes data from the districts for the three regions. For each component of IMCI, the percentage of health facilities that meet the IMCI minimum criteria shown in Table 9.3 is given. In Zanzibar districts, basic diagnostic equipment is most widely available, but the overall score for meeting all IMCI minimum criteria was very low; only 7 per cent of all facilities met all four criteria. In Dar es Salaam district, the overall situation was only slightly better, with 12 per cent of all facilities meeting all four criteria. The best results are obtained from Mwanza region, where more than half of the facilities met the criteria for diagnosis, treatment and prevention, although the coverage of IMCI training of health workers (with guidelines availability in the facilities) was still a limiting factor. Overall, 22 per cent of all facilities in Mwanza region met the four criteria.

FIGURE 9.2 PROPORTION OF FACILITIES THAT MEET IMCI CRITERIA, ZANZIBAR, MWANZA, AND DAR ES SALAAM, TANZANIA SAM 2006

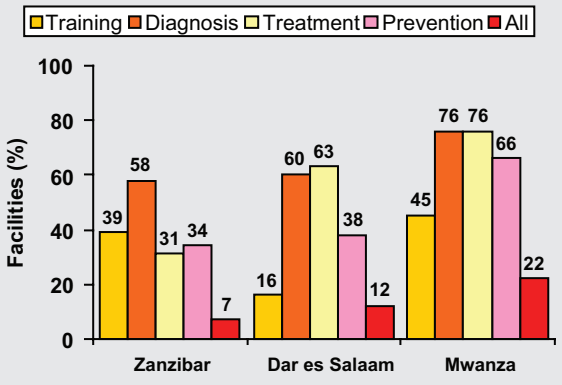


Table 9.4 Availability / presence of IMCI-related guidelines, trained staff, treatment, prevention and laboratory aids in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Trained health worker	Equipment	Drugs	Vaccine	IMCI standard	Stool exam.
Zanzibar						
Ugunja Kaskazini						
Kaskazini A	55.6	55.6	22.2	33.3	0.0	33.3
Kaskazini B	54.5	81.8	36.4	54.5	18.2	45.5
Unguja Kusini						
Kati	60.7	71.4	17.9	28.6	10.7	21.4
Kusini	70.0	90.0	10.0	60.0	10.0	30.0
Mjini Magharibi						
Magharibi	16.7	61.1	19.4	25.0	0.0	57.1
Mjini	6.8	35.6	33.9	20.3	0.0	69.5
Pemba Kaskazini						
Micheweni	64.3	64.3	57.1	64.3	14.3	14.3
Wete	65.4	57.7	38.5	42.3	19.2	11.5
Pemba Kusini						
Chake Chake	60.0	65.0	55.0	25.0	15.0	30.0
Mkoani	43.5	56.5	21.7	52.2	0.0	21.7
Mainland						
Dar es Salaam						
Ilala	14.6	55.4	72.0	40.1	10.2	96.7
Kinondoni	11.8	57.1	65.5	28.6	6.7	84.9
Temeke	20.1	61.7	60.4	44.8	15.6	79.2
Mwanza						
Rural						
Geita	77.6	89.8	65.3	83.7	36.7	25.0
Kwimba	60.0	45.7	74.3	71.4	17.1	12.9
Magu	30.6	77.8	75.0	69.4	13.9	25.0
Misungwi	2.7	73.0	64.9	86.5	2.7	21.6
Sengerema	43.4	94.3	77.4	69.8	24.5	28.6
Ukerewe	76.0	76.0	68.0	88.0	36.0	32.0
Urban						
Ilemela	45.7	71.4	97.1	48.6	31.4	74.3
Nyamagana	28.6	69.4	83.7	26.5	14.3	79.4
Other						
Kibaha	56.4	63.2	86.8	97.4	10.3	48.7

9.3 Safe motherhood

Safe motherhood includes a number of interventions related to antenatal and delivery care. Facilities with basic emergency obstetric care (EOC) can provide care for normal non-complicated deliveries. Facilities with comprehensive emergency obstetric care provide, in addition to basic care, intravenous infusion, caesarean section and other emergency surgery. Table 9.5 lists various topics included in the Tanzania SAM that can be used to assess the availability of basic and comprehensive emergency obstetric care.

Table 9.5 Topics related to safe motherhood and inclusion in minimum criteria analysis

Category	Topic	Criteria used
Guidelines	Safe motherhood guidelines	•
Staff	At least one trained in last 2 years	•
Equipment	Fetoscope	•
	Blood pressure machine and stethoscope	•
	Delivery bed	
	Communication equipment	
	Latex gloves	•
Laboratory diagnosis	Hb test	
	Malaria blood slide	
Treatment	Ergometrin	•
	Magnesium sulfate	•
	Iron tablets	
	Intravenous infusion kits	•
	Theatre and anaesthesia	•
Prevention	IPT for malaria	

Hb: haemoglobin; IPT: intermittent preventive therapy.

Table 9.6 shows the number of facilities that meet minimum criteria based on the SAM questions. These include having a trained person and guidelines, basic equipment including blood pressure machine and stethoscope, fetoscope and gloves in stock, the presence of a delivery bed; availability of ergometrin (for post-partum bleeding) and magnesium sulfate (for eclampsia). These four groups of criteria were used to assess whether a facility mets the criteria for basic EOC. Hospitals were excluded from this analysis. For comprehensive EOC, the minimum requirement is presence of intraveous infusion kits and operating facilities (with anaesthesia).

In Zanzibar, the number of facilities that meet the criteria for basic EOC are very few. Athough 30 per cent of the facilities in all districts combined have a midwife and safe motherhood guidelines, very few have delivery beds or drugs to treat complications. As a result, only 1 per cent of all facilities meet the criteria for basic EOC. Only three of the 10 hospitals in Zanzibar are able to provide blood transfusions and carry out emergency operations, including two in Mjini district.

In Dar es Salaam, only 2 per cent of facilities meet the criteria for basic EOC. The main reasons for the low score are the relatively small proportion of facilities with a midwife and guidelines and with drugs. All 26 hospitals are able to provide blood transfusions and surgical facilities (comprehensive EOC).

In Mwanza, the results are only slightly better, with only one facility in the rural districts (Sengerema) and a few facilities in the two districts of Mwanza city meeting the criteria (overall, 3 per cent of facilities). In districts in Mwanza region, the availability of delivery beds and drugs

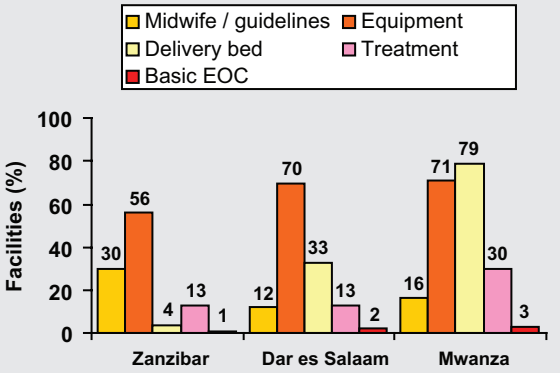
is better than elsewhere, but the lack of midwives with guidelines is a limiting factor. Six of the eight districts in Mwanza (the exceptions being Magu and Ukerewe districts) have at least one facility that provides comprehensive EOC.

Table 9.6 Availability / presence of safe motherhood / emergency obstretric care-related guidelines, trained staff, treatment, prevention and laboratory aids in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Trained health worker	Equipment	Delivery beds	Treatment	Basic EOC
Zanzibar					
Ugunja Kaskazini					
Kaskazini A	37.5	62.5	0.0	12.5	0.0
Kaskazini B	54.5	63.6	0.0	9.1	0.0
Unguja Kusini					
Kati	25.0	64.3	7.1	14.3	3.6
Kusini	55.6	100.0	0.0	0.0	0.0
Mjini Magharibi					
Magharibi	25.7	51.4	2.9	0.0	0.0
Mjini	14.8	55.6	0.0	9.3	0.0
Pemba Kaskazini					
Micheweni	76.9	53.8	0.0	23.1	0.0
Wete	24.0	44.0	4.0	28.0	0.0
Pemba Kusini					
Chake Chake	27.8	61.1	5.6	27.8	5.6
Mkoani	36.4	45.5	18.2	9.1	0.0
Mainland					
Dar es Salaam					
Ilala	16.1	89.5	24.5	4.2	2.8
Kinondoni	14.5	73.6	25.5	15.5	3.6
Temeke	10.6	68.2	37.7	10.6	0.7
Mwanza					
Rural					
Geita	16.7	89.6	97.9	6.3	0.0
Kwimba	21.2	33.3	81.8	0.0	0.0
Magu	20.0	42.9	85.7	0.0	0.0
Misungwi	0.0	51.4	88.6	2.9	0.0
Sengerema	9.6	88.5	96.2	75.0	5.8
Ukerewe	16.7	62.5	91.7	0.0	0.0
Urban					
Ilemela	38.2	85.3	44.1	64.7	14.7
Nyamagana	13.0	87.0	41.3	56.5	4.3
Other					
Kibaha	18.4	55.3	57.9	0.0	0.0

EOC: emergency obstetric care.

FIGURE 9.3 PROPORTION OF FACILITIES THAT MEET SAFE MOTHERHOOD MINIMUM CRITERIA, BASED ON AVAILABILITY, BY REGION, TANZANIA SAM 2006



EOC: emergency obstetric care.

9.4 Family planning

Table 9.7 summarizes the key availability questions related to family planning that were included in the Tanzania SAM and the items used to assess whether the minimum criteria were being met. It is noted that these items do not comprehend all elements of family planning and reproductive health.

Table 9.7 Topics related to family planning and inclusion in minimum criteria analysis

Category	Topic	Criteria used
Guidelines	Family planning guidelines	•
	ASRH guidelines	
Staff	At least one trained in last 2 years - family planning	•
	At least one trained in last 2 years - ASRH	
Equipment	Blood pressure machine & stethoscope	
	Latex gloves	
Contraceptives	Oral pills	•
	Injectable contraceptives	•
	Condoms	•

ASRH: Adolescent sexual and reproductive health.

In Zanzibar, a large proportion of health facilities employed at least one person who had been trained in the last two years and guidelines for family planning were present, with the exception of facilities in the urban districts of Unguja. Also, the majority of health facilities had oral contraceptives and one other contraceptive (injectable or condoms) in stock. Again, availability was lowest in urban districts.

A similar situation prevails in urban districts of Dar es Salaam. All districts had low rates of training in family planning (especially in Ilala district) and availability of contraceptives was also low in health facilities.

In the districts of Mwanza region, there were fairly high rates of training and guideline availability, with the exception of Sengerema district, where very little family planning training had been given in the last two years. Rates of contraceptive availability were considerably lower in health facilities in urban districts of Mwanza than in rural districts.

The proportion of health facilities that met both criteria ranged from a high of 90 per cent in Kusini to a low of 4 per cent in Sengerema, while no facilities in Ilala met the minimum criteria (last column, Table 9.8).

Table 9.8 Availability / presence of family planning commodities (at least two) and trained staff in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Training + guidelines	Contraceptives (2+)	Min. standard
Zanzibar			
Ugunja Kaskazini			
Kaskazini A	55.6	77.8	55.6
Kaskazini B	45.5	72.7	36.4
Unguja Kusini			
Kati	25.0	82.1	21.4
Kusini	90.0	100.0	90.0
Mjini Magharibi			
Magharibi	19.4	41.7	16.7
Mjini	15.3	35.6	13.6
Pemba Kaskazini			
Micheweni	85.7	85.7	78.6
Wete	50.0	69.2	42.3
Pemba Kusini			
Chake Chake	50.0	70.0	50.0
Mkoani	26.1	65.2	21.7
Mainland			
Dar es Salaam			
Ilala	0.0	47.8	0.0
Kinondoni	16.0	32.8	15.1
Temeke	30.5	59.1	27.3
Mwanza			
Rural			
Geita	57.1	93.9	55.1
Kwimba	45.7	82.9	42.9
Magu	33.3	77.8	33.3
Misungwi	43.2	91.9	40.5
Sengerema	5.7	83.0	3.8
Ukerewe	64.0	84.0	52.0
Urban			
Ilemela	48.6	74.3	48.6
Nyamagana	22.5	38.8	16.3
Other			
Kibaha	10.3	56.4	10.3

9.5 Control of STIs

Table 9.9 summarizes the key availability questions related to the STI control included in the Tanzania SAM and the items used to assess whether the minimum criteria were being met. It is noted that these items do not comprehend all elements of STIs and sexual health.

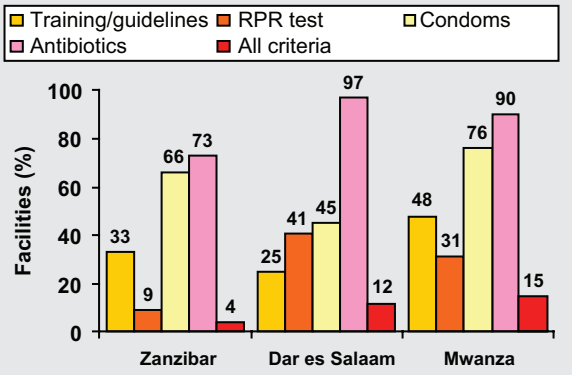
Table 9.9 Topics related to STI control and inclusion in minimum criteria analysis

Category	Topic	Criteria used
Guidelines	STI control planning guidelines	•
	ASRH guidelines	
Staff	At least one trained in last 2 years - STI	•
	At least one trained in last 2 years - ASRH	
Equipment	Syphilis test	
Commodities	Condoms	
Drugs	Antibiotics, oral	•
	Antibiotics, injectable	•

ASRH: Adolescent sexual and reproductive health; STI: sexually transmitted infection.

Table 9.10 presents the percentage of health facilities in which specific components of STI control programmes were available at the time of the visit. Figure 9.4 shows the same data summarized for the three regions.

FIGURE 9.4 PROPORTION OF FACILITIES THAT MEET MINIMUM CRITERIA FOR TREATMENT OF STIs, BASED ON AVAILABILITY, ZANZIBAR, MWANZA, DAR ES SALAAM, TANZANIA SAM 2006



RPR: rapid plasma reagin test for syphilis.

The scores for districts in Zanzibar tend to be lowest for all categories. In particular, the RPR (rapid plasma regain) test for syphilis is rarely available. In districts in Dar es Salaam and Mwanza region, the situation is somewhat better, with more training and better availability of syphilis tests and condoms than in health facilities in Zanzibar.

Overall, 4 per cent, 12 per cent and 15 per cent of health facilities met all four criteria in Zanzibar, Dar es Salaam and Mwanza region, respectively.

Table 9.10 Availability / presence of STI control-related guidelines, trained staff, treatment, prevention and laboratory tests in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Trained + Guidelines	RPR for syphilis	Condoms	Antibiotics	All
Zanzibar					
Ugunja Kaskazini					
Kaskazini A	33.3	11.1	77.8	55.6	0.0
Kaskazini B	45.5	9.1	81.8	72.7	0.0
Unguja Kusini					
Kati	25.0	0.0	89.3	64.3	0.0
Kusini	70.0	40.0	90.0	90.0	30.0
Mjini Magharibi					
Magharibi	27.8	11.1	52.8	75.0	0.0
Mjini	25.4	16.9	35.6	81.4	6.8
Pemba Kaskazini					
Micheweni	35.7	0.0	92.9	71.4	0.0
Wete	23.1	0.0	76.9	61.5	0.0
Pemba Kusini					
Chake Chake	45.0	5.0	80.0	90.0	5.0
Mkoani	47.8	4.3	73.9	60.9	4.3
Mainland					
Dar es Salaam					
Ilala	48.4	40.1	72.6	94.9	25.5
Kinondoni	24.4	35.3	37.8	95.0	10.9
Temeke	24.7	45.5	50.6	99.4	12.3
Mwanza					
Rural					
Geita	75.5	28.6	93.9	91.8	22.4
Kwimba	57.1	14.3	82.9	88.6	11.4
Magu	44.4	22.2	52.8	94.4	13.9
Misungwi	16.2	18.9	86.5	86.5	2.7
Sengerema	17.0	15.1	90.6	94.3	1.9
Ukerewe	84.0	44.0	80.0	80.0	24.0
Urban					
Ilemela	68.6	62.9	68.6	100.0	37.1
Nyamagana	46.9	46.9	51.0	83.7	12.2
Other					
Kibaha	15.4	30.8	71.8	89.7	15.4

9.6 HIV/AIDS

There are several interventions required for the diagnosis and treatment of patients with HIV/AIDS. Table 9.11 summarizes the topics in the SAM questionnaire that are associated with voluntary counselling and testing (VCT), PMTCT and treatment and care.

Table 9.11 Topics related to HIV/AIDS and inclusion in minimum criteria analysis

Service	Topic	Standard clinical
VCT	Guidelines	•
	At least one staff member trained in last 2 years and counsellor in facility	•
	HIV counselling and testing offered and testing on-site	•
PMTCT	Guidelines	•
	At least one staff trained in last 2 years	•
	Counselling for pregnant women	•
	HIV testing for pregnant women	•
	Nevirapine or AZT provided	•
Treatment	Guidelines on IMAI or treatment and care	•
	Training in treatment and care	•
	ART provided	•

ART: antiretroviral therapy.
IMAI: Integrated Management of Adult Illness.

Three components of VCT services for HIV were examined. The proportion of districts with guidelines, a trained staff member and an HIV counsellor on-site ranged from less than 5 per cent of facilities in several rural districts to more than 30 per cent in Kinondoni and Nyamagana districts. In most districts, a smaller proportion of facilities indicated that they were providing VCT and could offer an HIV test on-site. All three criteria were met for only a small proportion of facilities.

Table 9.12 presents the results on PMTCT in a stepwise manner. The results show that in Zanzibar only Mjini and Chake Chake districts have PMTCT facilities that meet these criteria. In Dar es Salaam, there are several facilities offering such services, but in Mwanza region there were none at the time of the survey. Kibaha district has facilities that offer PMTCT services.

Figures 9.5, 9.6 and 9.7 show the locations of facilities providing HIV/AIDS services in Zanzibar, Dar es Salaam and Mwanza region, respectively.

Table 9.12 Availability / presence of HIV/AIDS-related guidelines, trained staff, treatment, prevention and laboratory tests to provide VCT, PMTCT and ART in health facilities, by district, Zanzibar, Mwanza, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	VCT				PMTCT					ART			
	G'lines	Training	Offered & test	All criteria	ANC	+ Trained & guidelines	+ Counselling	+ Testing	+ ARVs	G'lines	Trained	ARVs	All criteria
Zanzibar													
Ugunja Kaskazini													
Kaskazini A	22.2	11.1	11.1	11.1	77.8	11.1	11.1	0.0	0.0	33.3	22.2	0.0	0.0
Kaskazini B	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	36.4	63.6	0.0	0.0
Unguja Kusini													
Kati	21.4	14.3	3.6	0.0	71.4	0.0	0.0	0.0	0.0	42.9	32.1	0.0	0.0
Kusini	20.0	10.0	10.0	10.0	100.0	10.0	10.0	10.0	0.0	60.0	60.0	0.0	0.0
Mjini Magharibi													
Magharibi	19.4	11.1	2.8	2.8	47.2	2.8	2.8	0.0	0.0	38.9	47.2	0.0	0.0
Mjini	15.3	15.3	8.5	3.4	30.5	1.7	1.7	1.7	1.7	16.9	28.8	1.7	1.7
Pemba Kaskazini													
Micheweni	14.3	7.1	0.0	0.0	92.9	0.0	0.0	0.0	0.0	14.3	7.1	0.0	0.0
Wete	3.8	3.8	0.0	0.0	73.1	0.0	0.0	0.0	0.0	23.1	11.5	3.8	0.0
Pemba Kusini													
Chake Chake	15.0	15.0	5.0	5.0	65.0	5.0	5.0	5.0	5.0	10.0	20.0	5.0	5.0
Mkoani	4.3	4.3	0.0	0.0	73.9	4.3	4.3	0.0	0.0	8.7	13.0	0.0	0.0
Mainland													
Dar es Salaam													
Ilala	13.4	14.0	7.6	5.1	45.9	9.6	8.3	5.7	3.8	21.7	15.3	5.1	5.1
Kinondoni	31.1	18.5	18.5	13.4	39.5	7.6	7.6	7.6	7.6	95.0	20.2	7.6	5.0
Temeke	8.4	11.7	10.4	3.2	56.5	9.7	6.5	6.5	4.5	28.6	28.6	4.5	2.6

	VCT				PMTCT					ART			
	G'lines	Training	Offered & test	All criteria	ANC	+ Trained & guidelines	+ Counselling	+ Testing	+ ARVs	G'lines	Trained	ARVs	All criteria
Mwanza													
Rural													
Geita	6.1	4.1	10.2	2.0	93.9	2.0	2.0	0.0	0.0	16.3	4.1	2.0	0.0
Kwimba	20.0	2.9	8.6	2.9	85.7	5.7	5.7	0.0	0.0	37.1	8.6	11.4	2.9
Magu	2.8	2.8	8.3	2.8	91.7	0.0	0.0	0.0	0.0	58.3	52.8	2.8	2.8
Misungwi	13.5	2.7	13.5	2.7	97.3	16.2	10.8	0.0	0.0	75.7	13.5	2.7	2.7
Sengerema	1.9	1.9	3.8	1.9	77.4	0.0	0.0	0.0	0.0	30.2	11.3	0.0	0.0
Ukerewe	8.0	12.0	8.0	8.0	92.0	0.0	0.0	0.0	0.0	16.0	8.0	4.0	4.0
Urban													
Ilemela	22.9	20.0	25.7	17.1	51.4	11.4	8.6	0.0	0.0	54.3	60.0	5.7	5.7
Nyamagana	30.6	14.3	16.3	8.2	14.3	2.0	2.0	0.0	0.0	44.9	44.9	12.2	6.1
Other													
Kibaha	17.9	7.7	25.6	7.7	59.0	15.4	15.4	15.4	12.8	20.5	23.1	5.1	5.1

VCT: voluntary counselling and testing; PMTCT: prevention of mother-to-child transmission; ART: antiretroviral therapy; ANC: antenatal care clinic.

Note: The first column under PMTCT shows the proportion of facilities in each district that provided antenatal care. The next column is the proportion of facilities that provide antenatal care and have a trained person plus guidelines available. The subsequent three columns add further criteria - offering counselling, offering HIV testing, and finally offering antiretroviral prophylaxis (nevirapine or AZT) to HIV-positive women and newborn babies.

The first column under ART presents the proportion of facilities in each district that have guidelines for either treatment and care or for integrated management of adult illness (IMAI). The second and third columns show the proportions of facilities with a staff member trained in AIDS treatment and care and antiretroviral drugs available, respectively. The last column is the proportion of facilities meeting all three criteria.

Regarding treatment and care of HIV/AIDS, three components were analysed: presence of guidelines for either treatment and care or for IMAI; presence of a staff member trained in AIDS treatment and care; and availability of antiretroviral drugs. The difference between the percentage of facilities providing antiretrovirals and the proportion of facilities meeting all three criteria indicates that a number of facilities provided antiretrovirals but did not have the more general AIDS treatment and care guidelines or staff with recent training.

FIGURE 9.5 LOCATION OF HEALTH FACILITIES AND AVAILABILITY OF VOLUNTARY COUNSELLING AND HIV TESTING SERVICES, ZANZIBAR, TANZANIA SAM 2006

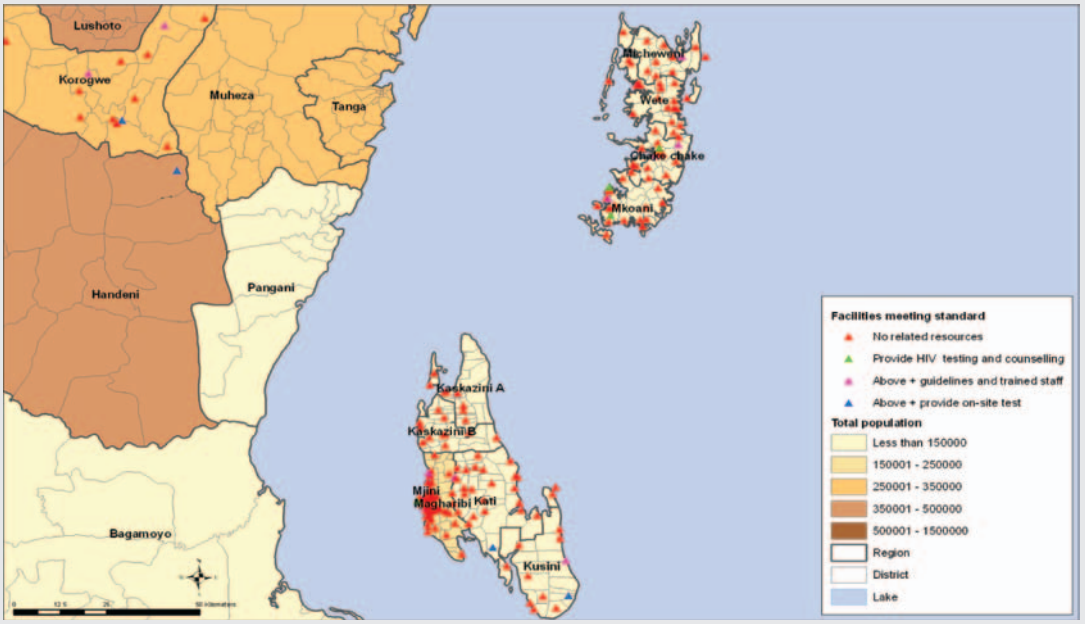


FIGURE 9.6 LOCATION OF HEALTH FACILITIES AND AVAILABILITY OF VOLUNTARY COUNSELLING AND HIV TESTING SERVICES, DAR ES SALAAM AND KIBAHA DISTRICT, TANZANIA SAM 2006

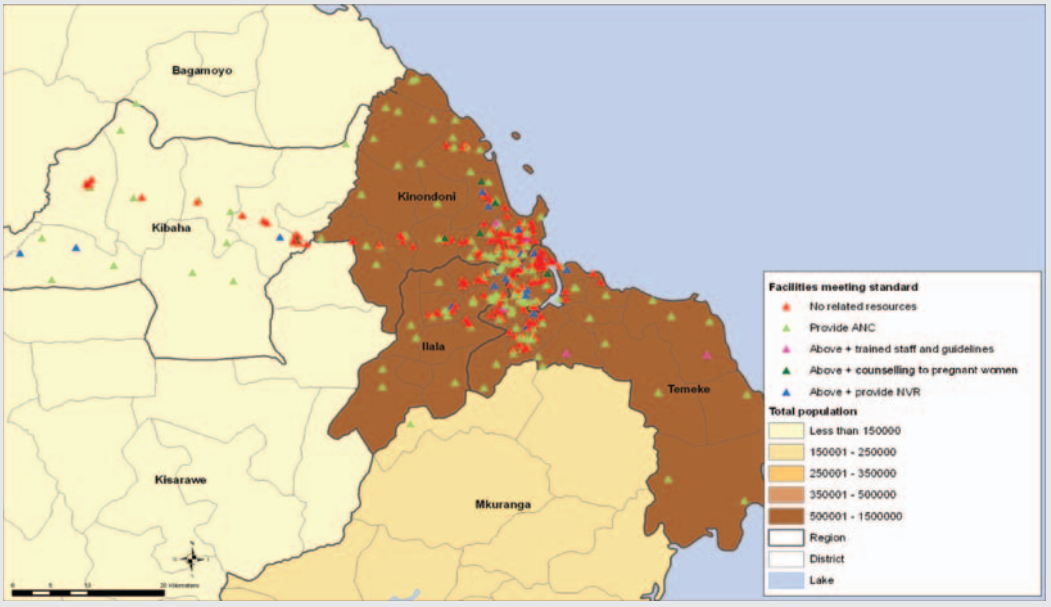
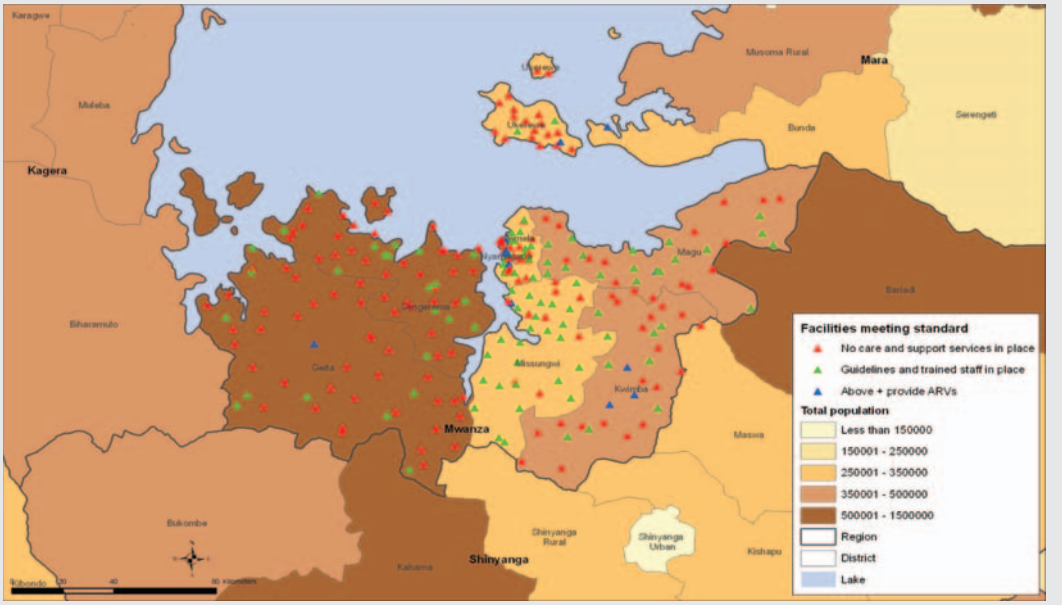


FIGURE 9.7 LOCATION OF HEALTH FACILITIES AND AVAILABILITY OF ART, MWANZA REGION, TANZANIA SAM 2006



9.7 Tuberculosis control

All health facilities were asked whether or not they kept a register of suspected cases of tuberculosis and had guidelines for the treatment of HIV-tuberculosis. Some other questions were only relevant for facilities indicating that they provided treatment for tuberculosis (e.g. DOTS, use of smear microscopy for diagnosis, availability of tuberculosis drugs, and testing for HIV).

A large proportion of facilities indicated that they offered treatment for tuberculosis (Table 9.13). Overall, 34 per cent of facilities in Zanzibar provided such services, although the variation between districts was large. Only a general question was asked about whether or not the facilities had drugs for the treatment of tuberculosis. Just 14 per cent of all facilities indicated that they provided such services and had tuberculosis drugs in stock. This suggests that the question on providing services was not well understood, as one would expect most facilities that provide TB services to have drugs in stock. An even larger discrepancy emerged in Ilala district, Dar es Salaam, with 87 per cent of facilities indicating that they provide TB treatment and only 21 per cent provide treatment and have tuberculosis drugs. In the other two districts in Dar es Salaam and in Kibaha district, however, no such differences emerged. In some facilities, the difference may be due to temporary drug shortages, while in others the differences are likely to have been caused by misinterpretation of the question or response during the interview. In Mwanza region, no questions about the availability of tuberculosis drugs were asked.

Table 9.13 Availability / presence of tuberculosis control-related interventions in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	N	Provide TB treatment	Provide & have TB drugs	Diagnosis using smear micr.	DOTS training	Register suspects		HIV TB guidelines		Direct observation
						Provide TB services	No TB services	Provide TB services	No TB services	Provide TB services
Zanzibar										
Ugunja Kaskazini										
Kaskazini A	9	66.7	44.4	0.0	77.8	50.0	0.0	50.0	33.3	83.3
Kaskazini B	11	90.9	45.5	9.1	81.8	90.0	0.0	30.0	0.0	100.0
Unguja Kusini										
Kati	28	42.9	21.4	10.7	74.1	16.7	6.2	58.3	12.5	100.0
Kusini	10	80.0	10.0	10.0	90.0	87.5	0.0	12.5	0.0	87.5
Mjini Magharibi										
Magharibi	36	25.0	16.7	0.0	63.9	88.9	0.0	77.8	3.7	100.0
Mjini	59	17.0	10.2	1.7	24.6	70.0	2.0	20.0	2.0	90.0
Pemba Kaskazini										
Micheweni	14	42.9	7.1	7.1	92.9	33.3	12.5	0.0	0.0	83.3
Wete	26	15.4	0.0	0.0	73.1	50.0	0.0	0.0	0.0	100.0
Pemba Kusini										
Chake Chake	20	40.0	5.0	0.0	60.0	50.0	0.0	25.0	0.0	100.0
Mkoani	23	39.1	4.4	13.0	73.9	75.0	0.0	11.1	7.1	100.0
Mainland										
Dar es Salaam										
Ilala	157	73.9	14.7	8.3	21.3	19.8	2.4	10.3	7.3	99.1
Kinondoni	119	19.3	18.5	10.1	18.0	21.7	2.1	95.7	6.3	100.0
Temeke	154	29.9	27.9	9.1	32.7	95.7	2.8	26.1	5.6	95.7
Mwanza										
Rural										
Geita	49	44.9	-	12.2	-	100.0	3.7	31.8	3.7	54.6
Kwimba	35	48.6	-	11.4	-	94.1	0.0	17.7	0.0	82.4
Magu	36	47.2	-	2.8	-	94.1	5.3	58.8	10.5	88.2
Misungwi	37	40.5	-	10.8	-	93.3	22.7	80.7	63.6	93.3
Sengerema	53	79.3	-	13.2	-	100.0	0.0	71.4	27.3	47.6
Ukerewe	25	76.0	-	16.0	-	89.5	16.7	26.3	0.0	79.0
Urban										
Ilemela	35	42.9	-	28.6	-	86.7	0.0	80.0	15.0	93.3
Nyamagana	49	36.7	-	22.5	-	100.0	0.0	66.7	19.4	88.9
Other										
Kibaha	39	23.1	20.5	12.8	2.6	100.0	10.0	12.5	0.0	77.8

DOTS: directly observed treatment, short course; HIV: human immunodeficiency virus; TB: tuberculosis.

Registers of suspected cases of tuberculosis were kept in the majority of facilities that indicated that they provided treatment for tuberculosis. In facilities that did not provide treatment for tuberculosis, however, there was generally no register of suspected cases .

Guidelines for HIV-tuberculosis treatment were more commonly available in tuberculosis treatment facilities. There were large differences between districts; in some districts nearly all facilities have the guidelines, in others none, especially in Zanzibar.

Direct observation of treatment as part of DOTS was done in almost all facilities in Zanzibar, Dar es Salaam, and Kibaha district. In Mwanza region, however, in two of the eight districts (Geita and Sengerema) less than half of the facilities reported providing direct observation.

Smear microscopy diagnosis of tuberculosis requires specific skills, a microscope and slides and materials to stain the sputum smear. In several districts a fairly high proportion of facilities indicated that they provided such diagnostic services, especially in Mwanza region. It is not clear whether these reports were accurate.

9.8 Noncommunicable diseases

The questionnaire included a few items that primarily deal with noncommunicable and chronic conditions in adults. Table 9.14 presents the results by district. Training in diabetes (at least one health worker trained in a facility) is not common and less than one in 10 facilities had both. Availability of mental health guidelines and a staff member trained in mental health is slightly better, but also low in all districts. The exceptions are districts of Mwanza region, where the majority of facilities in virtually all districts have had staff training and possess guidelines.

The availability of basic equipment such as adult weighing scales and a blood pressure machine with stethoscope was generally good, but there were some districts with worryingly low scores. For instance, in Kwimba district in Mwanza region only 34 per cent of facilities had equipment to measure blood pressure.

The availability of anti-hypertension drugs was poor in Mwanza districts and districts on Pemba. A blood glucose test could not be performed on-site in most facilities, although the likelihood of being able to offer this test was much higher in urban districts.

Table 9.14 Availability / presence of noncommunicable disease-related interventions in health facilities, by district, Zanzibar, Dar es Salaam, Mwanza and Kibaha district, Tanzania SAM 2006

	Diabetes training	Diabetes mngmt guidelines	Mental health training	Mental health guidelines	Adult scale	BP machine & steth.	Anti-hypertensives	Blood glucose
Zanzibar								
Ugunja Kaskazini								
Kaskazini A	11.1	11.1	22.2	11.1	87.5	88.9	55.6	33.3
Kaskazini B	9.1	0.0	9.1	20.0	100.0	81.8	54.6	9.1
Unguja Kusini								
Kati	3.6	14.3	10.7	10.7	92.9	71.4	46.4	14.3
Kusini	10.0	20.0	30.0	40.0	100.0	90.0	60.0	40.0
Mjini Magharibi					0.0		0.0	
Magharibi	13.9	8.3	13.9	8.3	82.9	91.7	69.4	47.2
Mjini	13.6	8.6	8.5	3.5	90.6	81.4	77.6	64.4
Pemba Kaskazini								
Micheweni	7.1	7.1	0.0	0.0	100.0	71.4	28.6	7.1
Wete	3.9	7.7	3.9	23.1	88.0	69.2	23.1	7.7
Pemba Kusini								
Chake Chake	10.0	35.0	15.0	10.0	88.9	80.0	42.1	35.0
Mkoani	4.4	21.7	4.4	4.4	95.5	69.6	17.4	26.1
Mainland								
Dar es Salaam								
Ilala	0.0	15.3	0.0	22.7	97.1	86.6	84.0	70.1
Kinondoni	7.6	53.8	18.5	25.2	98.2	93.3	77.3	65.6
Temeke	5.8	10.4	26.6	26.0	92.1	86.4	78.6	57.1
Mwanza								
Rural								
Geita		0.0	77.6	83.7	91.6	98.0	26.5	8.2
Kwimba		14.3	65.7	68.6	54.6	34.3	25.7	9.7
Magu		5.6	54.3	50.0	74.3	52.8	30.6	11.1
Misungwi		0.0	67.6	73.0	77.1	59.5	29.7	5.4
Sengerema		1.9	45.3	54.7	80.8	88.7	30.2	6.0
Ukerewe		0.0	72.0	72.0	70.8	68.0	24.0	12.0
Urban								
Ilemela		25.7	28.6	31.4	88.2	85.7	62.9	28.6
Nyamagana		18.4	24.5	20.4	84.8	85.7	61.2	53.1
Other								
Kibaha	2.6	7.7	2.6	2.6	92.1	82.1	30.8	28.2

10. HIV/AIDS IN MWANZA REGION: SCHOOLS, WORKPLACES AND PRIORITY PREVENTION AREAS

In addition to the health facility visits the Mwanza SAM included three additional components focusing on HIV/AIDS, and is referred to as P(revention)-SAM. All primary and secondary schools were visited to assess the status of health interventions with special attention for HIV prevention activities. In addition, workplaces with at least 50 employees were visited to assess the availability of HIV control programmes. Lastly, each district/council health management team was asked to identify the five locations where HIV transmission was thought to be highest, referred to as priority prevention areas (PPAs). The P-SAM aimed to assess the availability of key interventions in such areas.

10.1 Schools

The questionnaire was applied in public and private primary schools (Standard 5 to 7), public and private secondary schools and in technical and post-secondary schools. A list of existing schools was generated with the team members from the Department of Education in Mwanza region and was used to guide the application of the school questionnaire. Key informants for this questionnaire included school directors and their teams.

General aspects

Overall, 1029 schools were visited and interviews with the principal and key teachers were conducted (Table 10.1). Nine out of 10 schools were primary schools. For each secondary school there were 8.6 primary schools. The category 'other institutions' includes vocational training centres, universities and other mostly post-secondary educational facilities. The majority of institutions were public, with only 27 private-for-profit and 22 private non-profit educational facilities.

The density of schools per 10 000 population varied considerably between districts. At the lower end, Geita and Magu districts had a density of 2.1 and 3.0 schools per 10 000 population, respectively. The health facility surveys in Geita and Magu are known to have undercounted the number of facilities during fieldwork. A similar issue is likely to have affected the fieldwork for the schools. Kwimba, Misungwi and Ukerewe districts have 4–5 schools per 10 000 population. These numbers include many small rural primary schools. In the two districts of Mwanza city, the majority of schools are concentrated in Nyamagana district.

The average school size was 651 students per school. On average, there was one teacher for 58 students. In the rural schools, the number of students per teacher ranged from 52 to 79 by district, but was lower (42) in the two urban districts.

Table 10.1 Type and ownership of schools participating in the P-SAM Mwanza 2004–2005

District	Population	Type			Ownership			Total (N)	Schools per 10 000 pop.
		Primary	Secondary	Other	Private for-profit	Private non-profit	Public		
Geita	719 875	140	13	0	0	0	152	153	2.1
Kwimba	319 688	137	22	3	0	3	151	162	5.1
Magu	423 449	116	8	1	1	2	122	125	3.0
Misungwi	260 312	109	7	4	0	2	118	120	4.6
Sengerema	508 105	151	22	3	2	5	169	176	3.5
Ukerewe	266 643	100	4	2	1	1	104	106	4.0
Ilemela	269 918	61	12	2	10	8	57	75	2.8
Nyamagana	212 941	90	17	5	13	1	97	112	5.3
Total		904	105	20	27	22	970	1029	3.5

The proportions of schools with water supply from an improved water source (piped, covered well or borehole, rainwater) and with adequate sanitary facilities (flush toilet or pit latrine in good state) are presented in Table 10.2. Primary schools are shown by district; all other educational facilities are shown for all districts combined. Overall, 44 per cent of schools had an improved water supply, including 59 per cent of secondary institutions. The percentage of primary schools with improved water supply varies greatly between districts, from a low of 17 per cent in Sengerema to 72 per cent in Kwimba and 80 per cent in urban Nyamagana.

Table 10.2 Percentage of schools with basic characteristics related to health in primary schools, by district, and secondary and higher schools participating in the P-SAM Mwanza 2004–2005

School	Characteristic related to health						
	Safe water supply	Sanitary facilities	Boys/ girls separate facilities	Oral health programme	Vision programme	Sanitary supplies	Worms/ parasite programme
Primary							
Geita	24.3	98.6	98.6	4.3	2.1	7.1	1.4
Kwimba	72.3	90.5	55.5	40.9	39.4	41.6	39.4
Magu	44.8	96.6	95.7	10.3	1.7	11.2	0.0
Misungwi	32.1	73.4	95.4	0.9	0.9	3.7	2.8
Sengerema	17.2	98.7	96.0	13.9	2.0	29.8	4.0
Ukerewe	25.0	97.0	99.0	1.0	1.0	21.0	8.0
Ilemela	62.3	75.4	90.2	27.9	4.9	44.3	26.2
Nyamagana	80.0	83.3	95.6	14.4	5.6	42.2	23.3
Secondary or higher	59.2	88.0	78.4	14.4	12.8	30.4	11.2
Total	44.2	90.5	88.6	14.1	8.6	24.6	12.1

There was much less variation in the availability of adequate sanitary facilities, which were reported for 91 per cent of all schools combined. The majority of schools also had separate facilities for boys and girls; only in primary schools in Kwimba district (56 per cent) and for secondary or higher educational institutions in general (78 per cent) were the proportions less than 90 per cent.

Health programmes such as those targeting oral health, vision and treatment for worms/parasites are not common among schools. Only about one in seven schools reported that such a programme existed and a smaller proportion indicated that such programmes had been active in the last year. Only in Kwimba district did all programmes appear to be active.

HIV/AIDS

The P-SAM questions on HIV/AIDS focused on three areas: the kind of services present, human resources, and commodities available. The proportion of schools indicating that they had an active HIV prevention programme was high in most districts (average, 87 per cent) (Table 10.3). It was greater than 90 per cent in primary schools of all districts, with the exception of Kwimba, where less than half of the schools had such a programme. Among secondary or higher educational institutions, 78 per cent indicated that they had an HIV prevention programme in place. Questions were asked about the inclusion of five subjects in the curriculum: life skills, reproductive health, counselling and HIV testing, peer education methods, and people living with HIV/AIDS (PLWHA). In most schools these subjects were included in the teaching curriculum.

Table 10.3 Percentage of schools with HIV prevention programmes and specific contents of the curriculum, by district, P-SAM Mwanza 2004–2005

School	Topics included on curriculum					
	HIV prevention	Life skills	Reproductive health	Counselling and HIV testing	Peer education	PLWHA
Primary						
Geita	95.7	92.9	95.7	69.3	84.3	69.3
Kwimba	44.5	43.1	43.1	40.9	41.6	37.2
Magu	98.3	98.3	98.3	90.5	94.8	89.7
Misungwi	99.1	98.2	98.2	92.7	96.3	91.7
Sengerema	96.0	95.4	94.7	88.7	58.9	89.4
Ukerewe	96.0	95.0	95.0	73.0	94.0	88.0
Ilemela	93.4	90.2	91.8	85.3	85.3	88.5
Nyamagana	94.4	88.9	85.6	68.9	74.4	51.1
Secondary or higher	75.2	72.8	70.4	64.0	58.4	56.0
Total	86.9	85.0	84.8	73.9	74.3	72.4

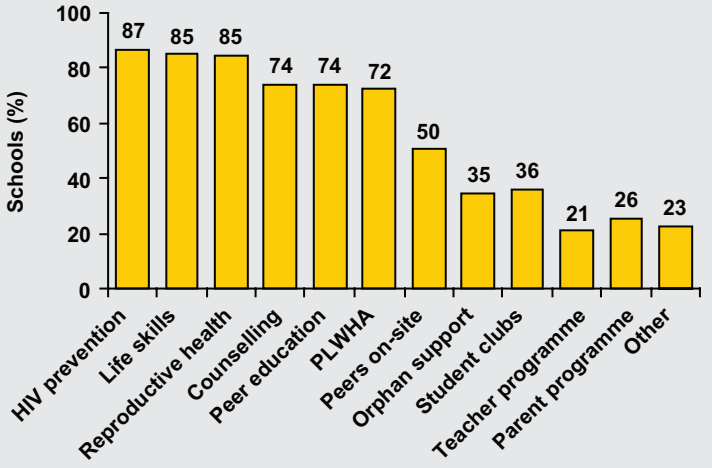
PLWHA: people living with HIV/AIDS.

Table 10.4 shows the kind of services offered by schools for all primary schools in each district and for all secondary or higher schools combined. Figure 10.1 summarizes the information for all schools combined for the whole region.

Table 10.4 Percentage of schools providing specific services related to HIV/AIDS, by district, P-SAM Mwanza 2004–2005

School	Peer education programme	Orphan support	Student clubs	Teacher programme	Parent programme
Primary					
Geita	47.1	42.1	47.1	12.1	7.1
Kwimba	40.9	43.1	36.5	48.2	43.1
Magu	71.6	34.5	21.6	12.9	37.9
Misungwi	27.5	8.3	29.4	7.3	7.3
Sengerema	29.1	7.3	11.9	6.0	6.6
Ukerewe	90.0	9.0	87.0	13.0	44.0
Ilemela	67.2	80.3	37.7	54.1	50.8
Nyamagana	71.1	76.7	18.9	21.1	26.7
Secondary or higher	36.0	43.2	42.3	28.8	25.6
Total	50.4	34.9	36.0	21.0	25.5

FIGURE 10.1 PERCENTAGE OF SCHOOLS PROVIDING SPECIFIC SERVICES RELATED TO HIV/AIDS, P-SAM MWANZA 2004–2005



PLWHA: people living with HIV/AIDS.

Half of the schools indicated that they had a peer education programme. One third had an orphan-support programme and one third had student clubs to fight AIDS. Special programmes on HIV/AIDS for teachers or for parents were found in 21 per cent and 26 per cent of schools, respectively.

Table 10.5 and Figure 10.2 indicate the extent to which schools have trained human resources for HIV prevention and sexual health education. While about one third of the schools had a school committee, often consisting of teachers, parents and sometimes students, such committees were active in only 14 per cent of the schools. Overall, 69 per cent of schools had a teacher trained in HIV/AIDS education. In a quarter of schools, this involved one trained teacher (24 per cent), 18 per cent had two trained teachers, while 27 per cent had three or more.

Table 10.5 Percentage of schools with specific human resources for HIV/AIDS-related activities, P-SAM Mwanza 2004–2005

School	School committee	Active in last 3 months	Teachers trained	Female guardian	Special counsellor	Either type of guardian	Peer education on-site	Mean number of peer educators
Primary								
Geita	12.9	2.1	80.7	91.7	87.9	91.7	35.6	4.0
Kwimba	40.9	38.0	49.6	48.9	43.8	62.8	41.6	6.5
Magu	70.7	8.6	92.2	96.6	56.9	97.4	97.4	3.5
Misungwi	3.7	3.7	71.6	36.7	78.0	87.2	24.8	5.4
Sengerema	12.6	7.3	51.0	52.3	69.5	90.7	28.5	10.1
Ukerewe	69.0	24.0	91.0	95.0	98.0	99.0	89.0	2.3
Ilemela	37.7	13.1	55.7	75.4	85.3	86.9	60.7	4.0
Nyamagana	43.3	17.8	60.0	85.6	85.6	92.2	67.8	4.6
Secondary or higher	21.6	16.0	66.4	54.5	65.0	74.4	37.4	6.7
Total	32.8	14.4	68.5	69.1	72.5	85.9	51.0	6.2

There were two programmes to train school counsellors for students. One programme (supported by TANESA) trained and supported female teachers to become a female guardian to counsel school girls on sexual and reproductive health issues; 69 per cent of schools reported having a trained female guardian. In some districts, their presence was nearly universal. A second type of counsellor, called matron or patron, was trained by another programme (supported by the international NGO AMREF), and was reported by 73 per cent of schools. Overall, 86 per cent of schools had either type of guardian. Most schools had at least two counsellors.

Peer health educators were active in 51 per cent of schools. In Magu and Ukerewe districts, 97 per cent and 89 per cent of schools, respectively, had peer educators. On average, each school had six peer educators, ranging from 2.3 in Ukerewe to more than 10 in Sengerema district.

FIGURE 10.2 PERCENTAGE OF SCHOOLS WITH SELECTED HUMAN RESOURCES IN PLACE, P-SAM MWANZA 2004–2005

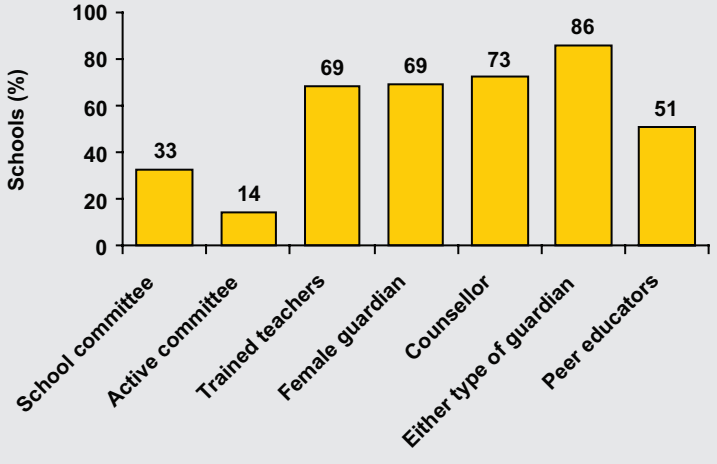


Table 10.6 presents the availability of selected commodities for HIV prevention and sexual and reproductive health education in schools by district. Peer educator manuals were available in more than half of the schools. Books on reproductive and sexual health for the students were available more frequently than were brochures and books on HIV/AIDS. Only a small proportion of schools possessed a working radio, video player or television. Condoms were rarely available in schools. The figure provided by schools in Kwimba district is improbably high, given that official policy was not to make condoms available in primary schools. Condoms were available in one out of seven secondary or higher schools.

Table 10.6 Percentage of schools with teaching aids and commodities for HIV/AIDS-related activities, P-SAM Mwanza 2004–2005

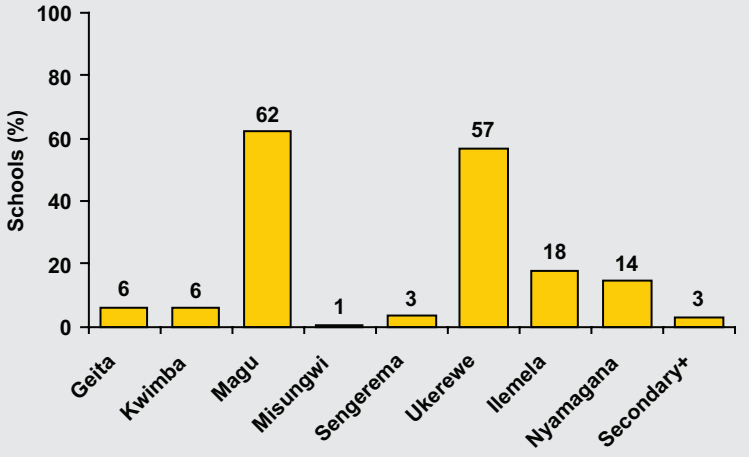
School	Teaching aid or commodity								
	Peer educator manual	Repro-ductive health books	HIV-STI brochures	Radio	Video player	Television	Videos on AIDS education	Other	Condoms
Primary									
Geita	90.0	82.9	49.3	2.9	0.7	0.0	0.7	18.6	0.7
Kwimba	36.5	46.0	60.6	48.9	39.4	38.0	39.4	56.2	40.9
Magu	93.1	90.5	46.6	38.8	0.9	0.9	0.9	88.8	4.3
Misungwi	20.2	100.0	23.9	4.6	0.0	0.0	0.0	10.1	0.0
Sengerema	35.1	92.7	45.0	21.9	25.6	0.0	0.7	0.0	2.7
Ukerewe	90.0	95.0	35.0	11.0	1.0	1.0	0.0	72.0	2.0
Ilemela	63.9	67.2	41.0	8.2	3.3	3.3	3.3	18.0	1.6
Nyamagana	53.3	76.7	41.1	11.1	5.6	2.2	3.3	8.9	0.0
Secondary or higher	36.0	63.2	46.4	20.0	25.6	28.8	23.2	32.0	12.8
Total	56.5	79.4	44.2	19.9	9.5	9.1	8.8	33.8	8.3

Figure 10.3 shows the proportion of schools in each district that met a minimum standard for a school programme on HIV prevention and sexual/reproductive health. This included:

- School committee present;
- At least one trained teacher;
- A curriculum in which at least three of the four key topics were said to be taught (life skills, reproductive health, counselling and HIV testing, peer education methods);
- At least four peer health educators;
- A peer health educators' manual; and
- At least one female guardian or counsellor.

The results for two districts stand out; in Magu and Ukerewe districts, 62 per cent and 57 per cent of primary schools meet the minimum standard. Both districts have been the focus of NGO interventions (TANESA and AMREF, respectively). In the two urban districts (Ilemela and Nyamagana), 18 per cent and 14 per cent of primary schools meet the minimum standard.

FIGURE 10.3 PERCENTAGE OF SCHOOLS MEETING A MINIMUM STANDARD FOR HIV PREVENTION PROGRAMME, P-SAM MWANZA 2004–2005



10.2 Workplaces

The Mwanza region P-SAM asked district authorities to identify all workplaces with at least 50 employees. The workplace questionnaire was applied in up to five workplaces in each district. During the training it was determined that the Chamber of Commerce would be used to identify employers in the area. Teams were instructed to administer the questionnaire to the manager of the workplace.

Overall, 22 employers were identified, including 12 private-sector and 10 public workplaces. Table 10.7 summarizes the results for workplaces ranked by the number of employees. Overall, the 22 workplaces had 6366 workers, with Geita Goldmines having 2605 employees. Details on the sex of workers were obtained from all facilities except Geita Goldmines, showing that men outnumber women by 2 to 1 (2480 male and 1281 female workers).

Table 10.8 shows the responses to a series of questions posed to managers and administrators at each workplace regarding the presence of HIV/AIDS programmes and policies, the availability of human resources, clinic and specific health services and commodities.

To summarize this information, it was assumed that a basic HIV prevention programme should comprise an HIV/AIDS policy, provide employees information on counselling and testing, have peer educators and provide educational materials for employees and condoms on-site. Two workplaces had all five components (Mwanza City Council and Tanzania Breweries Ltd). Geita Goldmines, Nyanza Bottling Company, Ukerewe District Council, Sekou Toure Hospital and Omega Fish Ltd had four of the five prevention-programme components in place. Six employers, mostly private and including three cotton industries, did not provide any activities or commodities related to HIV prevention.

Table 10.7 Employers with at least 50 employees, by district and type of ownership, P-SAM Mwanza 2004–2005

District	Name of employer	Ownership	No. of employees
Geita	Geita Gold Mine	Private-for-profit	2605
Nyamagana	Vic Fish Ltd	Private-for-profit	390
Nyamagana	Marine Co. Ltd	Public	353
Nyamagana	Butimbab Prison	Public	300
Ilemela	Mwanza Fishing Industries	Private-for-profit	300
Ilemela	Mwatex (2001) Ltd	Private-for-profit	260
Nyamagana	Sekou Toure Hospital	Public	259
Ilemela	Tanzania Breweries Ltd (TBL)	Private-for-profit	217
Ilemela	Nyanza Bottling Company Ltd	Private-for-profit	216
Kwimba	Lintex	Private-for-profit	200
Kwimba	LgGA Kwimba	Public	158
Kwimba	S.M. Holdings Ltd	Private-for-profit	157
Nyamagana	Mwanza City Council	Public	157
Geita	Copcot Cotton Trading (T) Ltd	Private-for-profit	132
Sengerema	Bomani	Public	122
Kwimba	Afrisian Ginnery Limited	Private-for-profit	100
Ukerewe	Ukerewe District Council	Public	98
Misungwi	Ari-Ukiriguru	Public	96
Misungwi	Misungwi District Council	Public	88
Magu	Magu District Council	Public	58
Kwimba	Deara Cotton Processing Ltd	Private non-profit	50
Ilemela	Omega Fish Ltd	Private-for-profit.	50

Table 10.8 Percentage of workplaces with HIV/AIDS-related activities, human resources and services, P-SAM Mwanza 2004–2005.

	Ownership		
	Public	**Private**	**Total**
Number of workplaces	10.0	12.0	22.0
Employees (mean)	177.0	390.0	293.0
Programmes offered			
HIV/AIDS policy in place	60.0	33.3	45.5
HIV testing before employment	20.0	8.3	13.6
Has HIV prevention programme	50.0	50.0	50.0
HIV programme active in last 3 months	40.0	41.7	40.9
Provide information on testing and counselling	70.0	50.0	59.1
Human resources			
Peer educators	50.0	41.7	45.5
HIV counsellor	20.0	16.7	18.2
Services			
Own clinic	30.0	58.3	45.5
Family planning services	30.0	16.7	22.7
Provide HIV testing and counselling	20.0	25.0	22.7
Antiretroviral therapy	30.0	16.7	22.7
Treatment for family members	30.0	25.0	27.3
STI control	20.0	25.0	22.7
Commodities			
Has educational materials	80.0	25.0	50.0
HIV-STI manual	60.0	16.7	36.4
Condoms on site	60.0	25.0	40.9
Medicines	40.0	33.3	36.4
Antiretrovirals in stock	20.0	16.7	18.2
Minimum prevention package (5)	10.0	8.3	9.1
Minimum prevention package (4)	20.0	25.0	22.7
No component of minimum package	10.0	41.7	27.3

STI: sexually transmitted infection.

10.3 Priority prevention areas (PPAs)

The PPAs (also known as high-transmission areas) questionnaire was implemented in two stages. The first required the identification of five PPAs per district; this was done in collaboration with persons who knew the district well. In general, these included district council members and TANESA staff involved in previous mapping of PPAs. Teams were requested to arrange a short meeting with these "district key informants"; the focus was on identifying PPAs that had some of the following characteristics:

- Proximity to major transportation route or border with another country;
- Suspected or known high prevalence of HIV, STI, and/or tuberculosis;
- Large transient/migrant population;
- High male-to-female ratio;
- High level of poverty;
- Known centre for sex work;
- Area of high unemployment; and
- Area with many out-of-school youths.

These interviews were used to collect basic information about each PPA, including basic characteristics and the presence of HIV prevention interventions, including STI services, VCT, condom social-marketing programmes, condom outlets and prevention posters and pamphlets.

In the second stage, field teams were asked to walk through each PPA, trying to verify information provided by the key informants. Teams were instructed to take global positioning system (GPS) coordinates for each PPA. For PPAs that comprised a geographical area, teams walked to the centre and took coordinates. For PPAs that were a single site (i.e. a large bar or hotel), teams recorded coordinates of that site.

The majority of sites were concentrations of bars and guest houses, and places with increased economic activity and mobility such as markets and fishing ports. Six of the 40 sites were reported to have a brothel-like facility. The most commonly described characteristics of PPAs were a high men-to-women ratio (84 per cent), suspected of having elevated prevalence of HIV (82 per cent), high levels of unemployment (79 per cent), and high levels of mobility (76 per cent) (Figure 10.4). Half of the PPAs were in the proximity of transport routes.

FIGURE 10.4 CHARACTERISTICS OF PRIORITY PREVENTION AREAS (PPAs) ACCORDING TO DISTRICT KEY INFORMANTS (AS A PERCENTAGE OF PPAs), P-SAM Mwanza 2004-2005

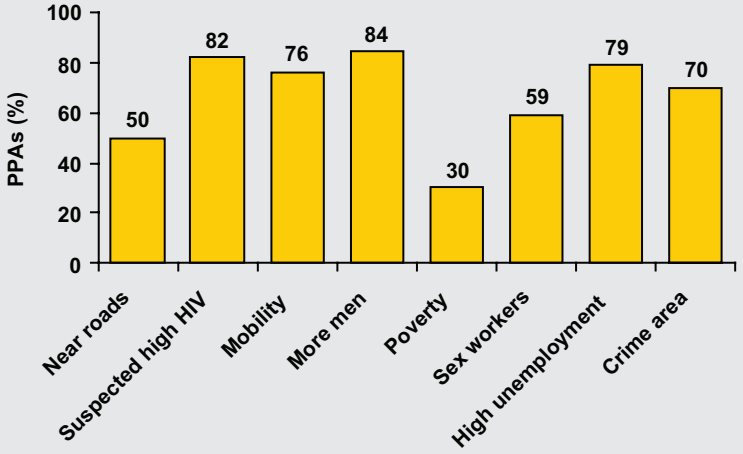
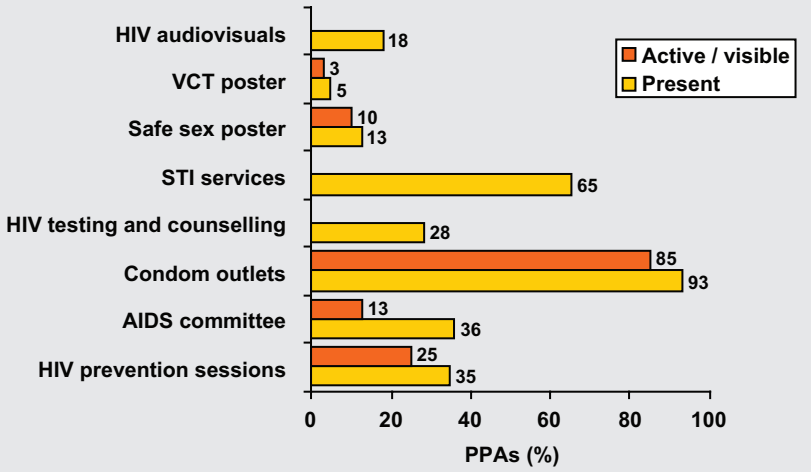


Figure 10.5 summarizes the presence and activity of interventions against HIV/AIDS and STIs. In only one third of the 40 PPAs had community HIV prevention sessions ever been provided, and in only one in four had such a session taken place in the last three months. AIDS committees were established in 36 per cent of the PPAs, but only 13 per cent had met in the last three months.

Condom outlets could be found in almost all PPAs, with 85 per cent of sites having access at night. HIV testing and counselling services were available in the vicinity for 28 per cent of the PPAs. Posters promoting voluntary counselling and testing were observed in only a few sites. STI services

were available in two thirds of PPAs. Posters and audiovisual materials providing information about HIV/AIDS were rare.

FIGURE 10.5 PRESENCE AND ACTIVITY/VISIBILITY OF INTERVENTIONS RELATED TO HIV/AIDS IN PRIORITY PREVENTION AREAS, P-SAM MWANZA 2004–2005



STI: sexually transmitted infections; VCT: voluntary counselling and testing.

A minimum standard for an HIV prevention programme for a PPA could include prevention sessions for the community (with recent activity), an active AIDS committee, condom outlets with 24-hour access, and STI services. Additional characteristics could include the presence of health education materials such as posters and audiovisuals, and a peer educator programme. Only one of the 40 PPAs met all these criteria (Kakora, Kwimba), although seven sites scored fairly well (Kisesa, Kabila and Magu town in Magu district, Hungumalwa and Malya in Kwimba district, Geita town and Lamgasa village centre, Geita district).

Annex A. STAFF PARTICIPATING IN THE TANZANIA SAM

National team: overall coordination

Zone 1 (Mwanza, Kagera and Mara)

1. Dr Elias Kwesi	Supervisor
2. Mr Anselm R. Magoma	Enumerator

Zone 2 (Tabora, Kigoma, Shinyanga and Singida)

1. Ms Joyce Chitalika	Supervisor
2. Mr Shija Ganai	Enumerator

Zone 3 (Dar es Salaam, Coast, Morogoro and Dodoma)

1. Mr Faustine Gwacha	Supervisor
2. Dr Hafith K. H. Amer	Enumerator
3. Dr Ritha Kambanga	Enumerator
4. Mr Emanuel Nkiling	Enumerator
5. Mr Joseph Lifa	Enumerator
6. Mr Frank G. Limo	Enumerator
7. Mr Japhet E. Mwamafupa	Enumerator

Zone 4 (Tanga, Kilimanjaro, Arusha, Manyara)

1. Ms Albina Chuwa	Supervisor
2. Mr Paschal W. Kanyinyi	Enumerator

Zone 5 (Mtwara, Lindi and Ruvuma)

1. Ms Joyce Riwa	Supervisor
2. Ms Immaculata S. Mhagama	Enumerator

Zone 6 (Iringa, Mbeya, Rukwa)

1. Mr Robert Mdoe	Supervisor
2. Ms Hellen Yapesa	Enumerator

Zone 7 (Unguja and Pemba)

1. Mr Julius Majura	Supervisor
2. Mr Abdul-latif K. Haji	Enumerator
3. Ms Khadija Shabani	Enumerator
4. Ms Subira S. Khatibu	Enumerator

Mwanza SAM Team

Annex B. POPULATION BY DISTRICT[16]

Region	District	2004	2005	2006
Zanzibar				
Pemba Kaskazini		**199 914**	**207 773**	**216 174**
	Wete	109 710	113 876	118 394
	Micheweni	90 204	93 897	97 780
		199 914	207 773	216 174
Unguja Kaskazini		**145 403**	**150 143**	**155 066**
	North A (Kaskazini A)	87 948	90 574	93 325
	North B (Kaskazini B)	57 575	59 725	61 925
		145 523	150 299	155 250
Pemba Kusini		**190 448**	**198 690**	**207 348**
	Chakechake	91 165	95 523	100 071
	Mkoani	99 283	103 167	107 277
		190 448	198 690	207 348
Unguja Kusini		**98 727**	**100 934**	**103 191**
	Central (Kati)	64 799	66 338	67 879
	South (Kusini)	33 928	34 596	35 312
		98 727	100 934	103 191
Urban West		**412 761**	**424 366**	**435 992**
	West (Magharibi)	190 329	193 705	196 912
	Urban (Mjini)	222 432	230 661	239 080
		412 761	424 366	435 992
Mainland				
Dar es Salaam		**2 642 708**	**2 721 926**	**2 801 675**
	Kinondoni	1 155 518	1 189 429	1 223 419
	Ilala	673 473	693 632	713 958
	Temeke	813 717	838 864	864 298
		2 642 708	2 721 925	2 801 675
Arusha		**1 380 830**	**1 428 034**	**1 475 489**
	Monduli	193 537	200 091	206 758
	Arumeru	555 880	574 799	593 789
	Arusha	300 737	310 984	321 278
	Karatu	195 093	201 858	208 563
	Ngorongoro	135 584	140 302	145 101
		1 380 831	1 428 034	1 475 489
Dodoma		**1 790 306**	**1 843 169**	**1 896 786**
	Kondoa	439 834	449 915	460 132

[16] Projections Bureau of the Census and Ministry of Health.

Region	District	2004	2005	2006
	Mpwapwa	268 361	275 600	282 758
	Kongwa	261 504	268 248	274 972
	Dodoma Rural	459 248	468 945	478 611
	Dodoma Urban	361 359	380 462	400 313
		1 790 306	1 843 170	1 896 786
Iringa		**1 552 796**	**1 585 501**	**1 617 696**
	Iringa Rural	251 439	255 428	259 268
	Mufindi	291 572	297 195	302 601
	Makete	109 367	111 217	113 029
	Njombe	439 243	448 633	457 989
	Ludewa	135 040	137 567	140 002
	Iringa Urban	117 315	123 043	128 942
	Kilolo	208 821	212 417	215 864
		1 552 797	1 585 500	1 617 695
Kagera		**2 054 392**	**2 130 668**	**2 210 217**
	Karagwe	427 139	442 001	457 292
	Bukoba Rural	399 007	411 712	424 914
	Muleba	389 125	402 156	415 818
	Biharamulo	415 291	432 154	449 761
	Ngara	331 029	342 649	354 813
	Bukoba Urban	92 801	99 997	107 619
		2 054 392	2 130 669	2 210 217
Kigoma		**1 413 199**	**1 473 100**	**1 535 700**
	Kibondo	339 539	351 241	363 418
	Kasulu	510 510	528 973	548 131
	Kigoma Rural	394 274	408 417	422 948
	Kigoma Urban	168 877	184 470	201 202
		1 413 200	1 473 101	1 535 699
Kilimanjaro		**1 437 755**	**1 470 168**	**1 503 014**
	Mwanga	121 641	124 588	127 476
	Same	223 451	228 671	233 864
	Moshi Rural	416 075	423 699	431 386
	Hai	270 291	276 013	281 870
	Moshi Urban	155 896	162 779	169 927
		1 457 645	1 491 763	1 526 393
Lindi		**816 769**	**834 171**	**851 764**
	Kilwa	167 469	169 953	172 432
	Lindi Rural	221 790	226 199	230 661
	Nachingwea	172 136	175 486	178 836
	Liwale	77 643	79 470	81 310
	Ruangwa	131 585	134 072	136 595
	Lindi Urban	46 145	48 991	51 930
		816 768	834 171	851 764

Region	District	2004	2005	2006
Manyara		**1 114 591**	**1 156 334**	**1 198 051**
	Babati	327 781	340 001	352 201
	Hanang	221 821	230 007	238 144
	Mbulu	258 471	267 801	277 027
	Simanjiro	147 125	153 125	159 242
	Kiteto	159 393	165 400	171 438
		1 114 591	1 156 334	1 198 052
Mara		**1 460 984**	**1 515 358**	**1 572 068**
	Tarime	521 274	540 183	559 790
	Serengeti	186 628	192 896	199 408
	Musoma Rural	350 269	360 835	371 841
	Bunda	278 614	288 966	299 815
	Musoma Urban	124 199	132 478	141 214
		1 460 984	1 515 358	1 572 068
Mbeya		**2 197 141**	**2 270 711**	**2 346 388**
	Chunya	218 982	226 334	233 902
	Mbeya Rural	268 861	277 767	286 854
	Kyela	185 117	190 881	196 777
	Rungwe	325 093	335 014	345 294
	Ileje	117 536	121 110	124 773
	Mbozi	547 810	566 190	584 825
	Mbarali	248 178	256 449	265 134
	Mbeya Urban	285 563	296 966	308 830
		2 197 140	2 270 711	2 346 389
Morogoro		**1 838 386**	**1 883 437**	**1 929 087**
	Kilosa	513 685	525 826	538 065
	Morogoro Rural	268 604	273 661	278 824
	Kilombero	338 232	346 687	355 219
	Ulanga/Mahenge	203 552	207 984	212 288
	Morogoro Urban	245 114	254 467	264 216
	Mvomero	269 199	274 812	280 475
		1 838 386	1 883 437	1 929 087
Pwani		**924 289**	**946 158**	**968 637**
	Bagamoyo	242 000	247 686	253 561
	Kibaha	141 143	145 207	149 426
	Kisarawe	100 574	102 682	104 816
	Mkuranga	193 664	197 808	201 977
	Rufiji	205 841	210 700	215 726
	Mafia	41 067	42 075	43 131
		924 289	946 158	968 637

Region	District	2004	2005	2006
Ruvuma		**1 170 676**	**1 202 430**	**1 235 161**
	Tunduru	256 321	262 906	269 798
	Songea Rural	166 121	170 339	174 667
	Mbinga	425 638	436 557	447 758
	Songea Urban	140 540	145 920	151 429
	Namtumbo	182 056	186 707	191 508
		1 170 676	1 202 429	1 235 160
Shinyanga		**3 025 241**	**3 149 179**	**3 277 784**
	Bariadi	650 118	676 208	703 298
	Maswa	330 032	343 279	357 165
	Shinyanga Rural	297 682	309 316	321 256
	Kahama	640 327	666 834	694 290
	Bukombe	428 025	446 001	464 516
	Meatu	269 992	280 583	291 718
	Shinyanga Urban	149 147	156 857	164 814
	Kishapu	259 917	270 101	280 728
		3 025 240	3 149 179	3 277 785
Tanga		**1 711 722**	**1 753 284**	**1 795 284**
	Lushoto	437 313	447 236	457 529
	Korogwe	275 537	282 250	289 105
	Muheza	290 389	297 328	304 481
	Tanga Urban	254 930	262 289	268 793
	Pangani	46 772	47 968	49 181
		1 304 941	1 337 071	1 369 089
Rukwa		**1 213 309**	**1 256 828**	**1 302 278**
	Mpanda	435 287	450 604	466 752
	Sumbawanga Rural	394 524	407 927	421 851
	Nkansi	224 406	232 559	241 023
	Sumbawanga Urban	159 092	165 738	172 652
		1 213 309	1 256 828	1 302 278
Mtwara		**7 208 357**	**1 194 588**	**1 220 248**
	Mtwara Rural	207 948	211 718	215 673
	Newala	190 385	193 951	197 449
	Masasi	460 997	470 674	480 327
	Tandahimba	211 833	216 337	220 908
	Mtwara Urban	98 051	101 908	105 891
		1 169 214	1 194 588	1 220 248
Singida		**1 152 422**	**1 187 409**	**1 222 810**
	Iramba	385 642	396 113	406 799
	Singida Rural	422 321	433 196	443 916
	Manyoni	217 798	224 981	232 397
	Singida Urban	126 661	133 120	139 697

Region	District	2004	2005	2006
		1 152 422	1 187 410	1 222 809
Mwanza		**2 980 930**	**3 073 881**	**3 168 904**
	Ukerewe	266 643	275 089	283 765
	Magu	423 449	436 276	449 320
	Nyamagana	212 941	221 015	229 277
	Kwimba	319 688	328 956	338 325
	Sengerema	508 105	523 583	539 495
	Geita	719 875	741 451	763 606
	Misungwi	260 312	267 935	275 683
	Ilemela	269 918	279 576	289 433
		2 980 931	3 073 881	3 168 904
Tabora		**1 849 101**	**1 925 106**	**2 004 115**

Annex C. COMPARISON OF DISTRICT SURVEY AND FACILITY CENSUS

The health teams that visited the districts as part of Tanzania service availability mapping (SAM) 2006 were provided with a list of health facilities from the Ministry of Health and Social Welfare, United Republic of Tanzania database. These lists were updated in collaboration with the council health management team during the district interview. Data from the council health management team interviews were compared with the results of the facility census that was conducted for the 13 districts in mainland Tanzania and all districts in Zanzibar.

Previous experience with SAM had already shown that for large urban areas the key-informant approach with the district or council health management team interviews led to incomplete reporting. Therefore, a full facility census was conducted in Dar es Salaam and Mwanza cities, and also in urban Zanzibar. The differences in the reports for urban areas for both methods of data gathering are shown for illustrative purposes in Table C.1.

More importantly, Table C.1 shows the number of health facilities and beds reported in the rural districts of Zanzibar, Mwanza region and Kibaha via district interview and facility census. The number of health facilities is divided into all and public ownership only. Overall, in the districts of rural Zanzibar the data on the number of facilities correspond well with those provided by the district key informants: 179 health facilities were listed in the nine district interviews, compared with 177 facilities listed in the facility census. There was also reasonable agreement between results for rural Mwanza, although the facility census suggested that numbers were lower than did the district interviews: 290 facilities were listed in the six district interviews compared with 235 in the facility census. For health facility beds (maternity and inpatient beds combined), there was also very good overall comparability for Zanzibar and to a lesser extent for rural Mwanza, where 17 per cent fewer beds were registered in the facility visits than in the district interviews.

At the district level there was more variability in results reported by the two methods. In some districts larger numbers of facilities were identified by the facility census than by the district interview. For instance, the number of facilities in Wete district was 22 according to district interview and 26 according to the facility census. The most important reason for underestimation of the number of facilities was underreporting of private facilities. This was not immediately clear from the analysis, mostly because of misclassification of the ownership status of the facility, as was shown in a detailed comparison of the names of the facilities listed through both methods.

In many districts, especially those in Mwanza region, the number of facilities was lower according to the facility census. This could be because the district team overestimated the number of facilities or because the field team did not visit all facilities. A comparison of the names of facilities between the two sources showed that in most cases the fieldwork had not covered all facilities. In two districts—Geita and Magu—logistic reasons hampered the proper completion of fieldwork.

Table C.1 Number of facilities (all and publicly-owned) and health facility beds identified through district interviews (Dis) and health facility census (Fac), Tanzania SAM 2006

	Facility census		Public facilities		Beds	
	Dis	Fac	Dis	Fac	Dis	Fac
Zanzibar (rural)	**139**	**141**	**114**	**121**	**391**	**383**
Kaskazini A	16	9	13	7	28	17
Kaskazini B	12	11	10	9	0	0
Kati	27	28	21	24	0	2
Kusini	10	10	10	10	24	19
Micheweni	13	14	13	13	16	16
Wete	22	26	19	23	78	114
Chake Chake	19	20	12	15	162	134
Mkoani	20	23	16	20	83	81
Mwanza (rural)	**290**	**235**	**242**	**209**	**2419**	**2018**
Geita	60	49	48	44	339	336
Kwimba	37	35	35	33	397	387
Magu	64	36	49	30	587	221
Misungwi	37	37	34	34	401	304
Sengerema	57	53	49	46	424	571
Ukerewe	35	25	27	22	271	199
Other (rural)						
Kibaha	42	39	27	22	280	338
Korogwe	53	16	42	11	245	168
Zanzibar Mjini	**63**	**59**	**10**	**17**	**Na**	**590**
Magharibi	40	36	11	16	11	16
Dar es Salaam	**337**	**276**	**44**	**59**	**1716**	**3364**
Ilala	167	119	17	27	631	2255
Kinondoni	170	157	27	32	1085	1109
Temeke		154		43		946
Mwanza (urban)	**39**	**83**	**24**	**32**		
Ilemela	17	35	10	14		
Nyamagana	22	48	14	18		

Table C.2 presents the numbers of doctors and assistant medical officers combined and the number of nurses and midwives combined for both data sources. The number of health workers identified through the facility census was higher than through the district interviews in most districts and overall, despite the fact that not all facilities were visited.

Table C.2 Number of health workers identified through district interviews (Dis) and health facility census (Fac), Tanzania SAM 2006

	Doctors and AMOs		Nurses and midwives	
	Dis	**Fac**	**Dis**	**Fac**
Zanzibar (rural)	**25**	**39**	**285**	**410**
Kaskazini A	1	2	42	30
Kaskazini B	1	0	9	31
Kati	1	2.5	17	43
Kusini	1	1	19	32
Micheweni	0	1	33	28
Wete	7	9	91	91
Chake Chake	5	15.5	74	85
Mkoani	9	8	-	70
Mwanza (rural)	**50**	**57**	**503**	**603**
Geita	16	16	29	98
Kwimba	8	10	128	166
Magu	8	12	84	66
Misungwi	5	6	84	69
Sengerema	9	8.5	133	100
Ukerewe	4	4	45	104
Other (rural)				
Kibaha	18	22	160	163
Zanzibar Mjini		**57**	**10**	**17**
Magharibi	1	17.5	92	81
Dar es Salaam	**319**	**796**	**824**	**1928**
Ilala	199	521	478	1201
Kinondoni	120	275	346	727
Temeke	37	115	221	453
Mwanza (urban)	**4**	**258**	**157**	**978**
Ilemela	4	27	60	147
Nyamagana		231	97	831

In rural Zanzibar, 39 doctors and assistant medical officers were reported to be employed in facilities, compared with 25 in the district interview. Almost all the difference was due to one district, Chake Chake, although a 44 per cent higher number of nurses and midwives was also reported in the facility census. In Mwanza, where a larger number of facilities were not visited, the two figures are more similar, although there was still a difference of 100 in the number of nurses and midwives reported. In Kibaha district, there was very good correspondence between the numbers of health workers reported according to both sources.

Annex D. DISTRICT TABLES

Table D.1 Number and density of health facilities by type of ownership and district, Tanzania SAM 2006

District	Population	Number of facilities					Density per 10 000	Private (%)
		Public	NGO	Private	Other	Total		
Arumeru	593 789	47	29	3	9	88	1.48	3
Arusha	321 278	6	8	44	1	59	1.84	75
Babati	352 201	21	10	9	1	41	1.16	22
Bagamoyo	253 561	46	4	5	4	59	2.33	8
Bariadi	703 298	42	6	6	0	54	0.77	11
Biharamulo	449 761	30	2	3	0	35	0.78	9
Bukoba Rural	424 914	41	12	4	3	60	1.41	7
Bukoba Urban	107 619	10	1	3	1	15	1.39	20
Bukombe	464 516	16	2	9	1	28	0.60	32
Bunda	299 815	35	4	3	0	42	1.40	7
Central	67 879	24	1	3	0	28	4.12	11
Chakechake	100 071	15	1	4	0	20	2.00	20
Chunya	233 902	34	2	1	0	37	1.58	3
Dodoma Rural	478 611	78	5	0	0	83	1.73	0
Dodoma Urban	400 313	28	8	9	2	47	1.17	19
Geita	763 606	48	8	2	2	60	0.79	3
Hai	281 870	32	39	1	1	73	2.59	1
Hanang	238 144	15	5	1	0	21	0.88	5
Handeni	281 988	42	5	5	0	52	1.84	10
Igunga	370 694	24	2	4	0	30	0.81	13
Ilala	713 958	27	28	59	5	119	1.67	50
Ileje	124 773	20	5	0	0	25	2.00	0
Ilemela	289 433	14	4	17	0	35	1.21	49
Iramba	406 799	40	13	1	3	57	1.40	2
Iringa Rural	128 942	48	14	0	1	63	4.89	0
Iringa Urban	259 268	11	7	8	0	26	1.00	31
Kahama	694 290	29	3	6	1	39	0.56	15
Karagwe	457 292	36	15	1	2	54	1.18	2
Karatu	208 563	14	16	7	1	38	1.82	18
Kasulu	548 131	58	15	1	2	76	1.39	1
Kibaha	149 426	22	6	8	3	39	2.61	21
Kibondo	363 418	60	2	1	1	64	1.76	2
Kigoma Rural	422 948	60	4	2	2	68	1.61	3
Kigoma Urban	201 202	8	2	7	4	21	1.04	33
Kilolo	215 864	26	13	2	0	41	1.90	5
Kilombero	355 219	19	0	6	0	25	0.70	24

District	Population	Number of facilities					Density per 10 000	Private (%)
		Public	NGO	Private	Other	Total		
Kilosa	538 065	54	9	4	7	74	1.38	5
Kilwa	172 432	41	3	0	0	44	2.55	0
Kinondoni	1 223 419	32	11	112	2	157	1.28	71
Kisarawe	104 816	19	13	4	2	38	3.63	11
Kishapu	280 728	34	3	6	0	43	1.53	14
Kiteto	171 438	16	2	0	0	18	1.05	0
Kondoa	460 132	60	12	2	0	74	1.61	3
Kongwa	274 972	24	1	3	2	30	1.09	10
Korogwe	289 105	42	4	5	2	53	1.83	9
Kwimba	338 325	35	1	1	0	37	1.09	3
Kyela	196 777	24	5	0	1	30	1.52	0
Lindi Rural	230 661	40	4	0	0	44	1.91	0
Lindi Urban	51 930	10	0	3	0	13	2.50	23
Liwale	81 310	22	0	1	1	24	2.95	4
Ludewa	140 002	38	9	0	0	47	3.36	0
Lushoto	457 529	39	11	2	2	54	1.18	4
Mafia	43 131	13	0	2	0	15	3.48	13
Magu	449 320	49	3	12	0	64	1.42	19
Makete	113 029	14	15	0	1	30	2.65	0
Manyoni	232 397	30	10	3	0	43	1.85	7
Masasi	480 327	45	11	4	0	60	1.25	7
Maswa	357 165	33	3	2	1	39	1.09	5
Mbarali	265 134	32	8	1	2	43	1.62	2
Mbeya Rural	286 854	34	3	1	0	38	1.32	3
Mbeya Urban	308 830	14	3	20	5	42	1.36	48
Mbinga	447 758	58	12	1	0	71	1.59	1
Mbozi	584 825	43	13	5	0	61	1.04	8
Mbulu	277 027	18	6	4	1	29	1.05	14
Meatu	291 718	31	5	3	0	39	1.34	8
Micheweni	97 780	13	0	1	0	14	1.43	7
Misungwi	275 683	34	3	0	0	37	1.34	0
Mkoani	107 277	20	0	3	0	23	2.14	13
Mkuranga	201 977	17	4	8	0	29	1.44	28
Monduli	206 758	32	7	1	2	42	2.03	2
Morogoro Rural	278 824	33	0	2	1	36	1.29	6
Morogoro Urban	264 216	17	10	16	3	46	1.74	35
Moshi Rural	431 386	36	24	27	0	87	2.02	31
Moshi Urban	169 927	13	5	28	7	53	3.12	53
Mpanda	466 752	44	7	3	0	54	1.16	6
Mpwapwa	282 758	32	5	1	3	41	1.45	2
Mtwara Rural	215 673	36	1	0	0	37	1.72	0
Mtwara Urban	105 891	7	5	5	3	20	1.89	25

District	Population	Number of facilities					Density per 10 000	Private (%)
		Public	NGO	Private	Other	Total		
Mufindi	302 601	36	11	3	3	53	1.75	6
Muheza	304 481	43	2	3	9	57	1.87	5
Muleba	415 818	25	10	0	2	37	0.89	0
Musoma Rural	371 841	40	8	0	4	52	1.40	0
Musoma Urban	141 214	13	4	11	3	31	2.20	35
Mvomero	280 475	35	0	2	3	40	1.43	5
Mwanga	127 476	40	4	0	3	47	3.69	0
Nachingwea	178 836	26	6	0	0	32	1.79	0
Namtumbo	191 508	30	5	1	0	36	1.88	3
Newala	197 449	26	0	1	0	27	1.37	4
Ngara	354 813	36	4	2	0	42	1.18	5
Ngorongoro	145 101	12	5	0	1	18	1.24	0
Njombe	457 989	61	21	5	3	90	1.97	6
Nkasi	241 023	35	7	0	0	42	1.74	0
North A	93 325	13	0	3	0	16	1.71	19
North B	61 925	9	1	1	0	11	1.78	9
Nyamagana	229 277	18	5	25	0	48	2.09	52
Nzega	458 603	43	61	0	21	125	2.73	0
Pangani	49 181	13	0	0	2	15	3.05	0
Rombo	281 870	23	8	7	0	38	1.35	18
Ruangwa	136 595	16	2	1	0	19	1.39	5
Rufiji	215 726	51	6	1	0	58	2.69	2
Rungwe	345 294	39	14	4	0	57	1.65	7
Same	233 864	32	16	12	2	62	2.65	19
Sengerema	539 495	49	6	2	0	57	1.06	4
Serengeti	199 408	25	2	3	3	33	1.65	9
Shinyanga Rural	321 256	31	1	5	0	37	1.15	14
Shinyanga Urban	164 814	7	2	19	0	28	1.70	68
Sikonge	154 252	20	6	0	0	26	1.69	0
Simanjiro	159 242	20	6	7	10	43	2.70	16
Singida Rural	443 916	42	10	0	0	52	1.17	0
Singida Urban	139 697	10	0	5	1	16	1.15	31
Songea Rural	174 667	28	13	1	0	42	2.40	2
Songea Urban	151 429	9	1	6	0	16	1.06	38
South	35 312	10	0	0	0	10	2.83	0
Sumbawanga Rural	421 851	83	9	0	0	92	2.18	0
Sumbawanga Urban	172 652	20	4	6	0	30	1.74	20
Tabora Urban	203 572	27	5	7	1	40	1.96	18
Tandahimba	220 908	32	1	0	0	33	1.49	0
Tanga	268 793	20	5	14	13	52	1.93	27
Tarime	559 790	37	14	10	0	61	1.09	16

District	Population	Number of facilities					Density per 10 000	Private (%)
		Public	NGO	Private	Other	Total		
Temeke	864 298	43	74	34	3	154	1.78	22
Town	239 080	17	3	37	2	59	2.47	63
Tunduru	269 798	45	5	1	0	51	1.89	2
Ukerewe	283 765	27	1	7	0	35	1.23	20
Ulanga	212 288	22	12	1	0	35	1.65	3
Urambo	447 281	40	1	3	0	44	0.98	7
Uyui	352 345	34	4	0	1	39	1.11	0
West	196 912	16	4	16	0	36	1.83	44
Wete	118 394	23	0	3	0	26	2.20	12
Total	38 112 914	3856	941	810	188	5795	1.52	14

AMO: assistant medical officer; Priv: private ownership; Pub: public ownership.

Table D.2 Number and density of health facility beds by type (public, private, maternity and delivery beds) and district, Tanzania SAM 2006

District	Population	Number of beds					Density per 10 000	Private (%)
		Public	Private	Maternity	Delivery	Total		
Arumeru	593 789	0	0	0	0	0	0	
Arusha	321 278	585	65	37	21	687	2.14	10
Babati	352 201	369	0	0	20	369	1.05	0
Bagamoyo	253 561	125	2	58	44	185	0.73	2
Bariadi	703 298	180	0	0	0	180	0.26	0
Biharamulo	449 761	221	0	33	35	254	0.56	0
Bukoba Rural	424 914	347	60	50	108	457	1.08	15
Bukoba Urban	107 619	268	33	20	12	321	2.98	11
Bukombe	464 516	63	13	0	0	76	0.16	17
Bunda	299 815	158	0	89	47	247	0.82	0
Central	67 879	0	0	2	2	2	0.03	
Chakechake	100 071	130	0	4	4	134	1.34	0
Chunya	233 902	240	0	14	12	254	1.09	0
Dodoma Rural	478 611	52	0	80	85	132	0.28	0
Dodoma Urban	400 313	1032	27	90	47	1149	2.87	3
Geita	763 606	278	14	69	188	361	0.47	5
Hai	281 870	529	0	38	59	567	2.01	0
Hanang	238 144	102	12	48	6	162	0.68	11
Handeni	281 988	276	0	29	47	305	1.08	0
Igunga	370 694	326	0	0	0	326	0.88	0
Ilala	713 958	1682	277	296	296	2255	3.16	14
Ileje	124 773	170	0	28	25	198	1.59	0
Ilemela	289 433	159	51	24	33	234	0.81	24
Iramba	406 799	350	0	0	0	350	0.86	0
Iringa Rural	128 942	258	0	109	73	367	2.85	0

District	Population	Number of beds					Density per 10 000	Private (%)
		Public	Private	Maternity	Delivery	Total		
Iringa Urban	259 268	353	22	46	17	421	1.62	6
Kahama	694 290	249	37	0	0	286	0.41	13
Karagwe	457 292	403	0	89	55	492	1.08	0
Karatu	208 563	272	0	102	27	374	1.79	0
Kasulu	548 131	556	0	0	0	556	1.01	0
Kibaha	149 426	274	41	33	33	348	2.33	13
Kibondo	363 418	150	0	0	0	150	0.41	0
Kigoma Rural	422 948	182	0	0	0	182	0.43	0
Kigoma Urban	201 202	300	0	0	0	300	1.49	0
Kilolo	215 864	121	4	154	53	279	1.29	3
Kilombero	355 219	450	0	60	39	510	1.44	0
Kilosa	538 065	402	0	142	63	544	1.01	0
Kilwa	172 432	152	0	215	48	367	2.13	0
Kinondoni	1 223 419	688	352	69	69	1109	0.91	34
Kisarawe	104 816	166	0	37	17	203	1.94	0
Kishapu	280 728	87	71	0	0	158	0.56	45
Kiteto	171 438	120	0	0	14	120	0.70	0
Kondoa	460 132	320	18	76	53	414	0.90	5
Kongwa	274 972	95	0	35	33	130	0.47	0
Korogwe	289 105	141	8	19	19	168	0.58	5
Kwimba	338 325	361	4	43	103	408	1.21	1
Kyela	196 777	197	0	25	37	222	1.13	0
Lindi Rural	230 661	268	0	51	32	319	1.38	0
Lindi Urban	51 930	186	6	25	10	217	4.18	3
Liwale	81 310	61	0	43	24	104	1.28	0
Ludewa	140 002	418	0	25	42	443	3.16	0
Lushoto	457 529	309	0	59	47	368	0.80	0
Mafia	43 131	119	11	22	21	152	3.52	8
Magu	449 320	479	4	108	124	591	1.32	1
Makete	113 029	404	0	63	13	467	4.13	0
Manyoni	232 397	633	0	0	0	633	2.72	0
Masasi	480 327	650	59	143	61	852	1.77	8
Maswa	357 165	230	20	0	0	250	0.70	8
Mbarali	265 134	162	0	7	14	169	0.64	0
Mbeya Rural	286 854	97	10	23	7	130	0.45	9
Mbeya Urban	308 830	20	58	39	8	117	0.38	74
Mbinga	447 758	396	0	244	80	640	1.43	0
Mbozi	584 825	396	26	59	32	481	0.82	6
Mbulu	277 027	516	0	89	22	605	2.18	0
Meatu	291 718	96	0	0	0	96	0.33	0
Micheweni	97 780	13	0	2	2	15	0.15	0
Misungwi	275 683	353	0	44	91	397	1.44	0

District	Population	Number of beds					Density per 10 000	Private (%)
		Public	Private	Maternity	Delivery	Total		
Mkoani	107 277	74	0	7	7	81	0.76	0
Mkuranga	201 977	40	0	80	40	120	0.59	0
Monduli	206 758	106	15	30	34	151	0.73	12
Morogoro Rural	278 824	52	0	15	36	67	0.24	0
Morogoro Urban	264 216	380	0	50	12	430	1.63	0
Moshi Rural	431 386	0	0	0	61	0	0.00	
Moshi Urban	169 927	400	50	120	10	570	3.35	11
Mpanda	466 752	189	0	100	53	289	0.62	0
Mpwapwa	282 758	181	0	0	0	181	0.64	0
Mtwara Rural	215 673	75	0	63	39	138	0.64	0
Mtwara Urban	105 891	288	0	56	20	344	3.25	0
Mufindi	302 601	289	50	135	40	474	1.57	15
Muheza	304 481	351	0	128	51	479	1.57	0
Muleba	415 818	639	0	136	38	775	1.86	0
Musoma Rural	371 841	105	11	33	49	149	0.40	9
Musoma Urban	141 214	241	0	43	21	284	2.01	0
Mvomero	280 475	241	0	60	42	301	1.07	0
Mwanga	127 476	154	0	22	27	176	1.38	0
Nachingwea	178 836	309	0	42	38	351	1.96	0
Namtumbo	191 508	91	0	70	54	161	0.84	0
Newala	197 449	191	0	32	29	223	1.13	0
Ngara	354 813	420	40	78	45	538	1.52	9
Ngorongoro	145 101	0	0	35	10	35	0.24	
Njombe	457 989	0	16	0	121	16	0.03	100
Nkasi	241 023	111	0	30	33	141	0.59	0
North A	93 325	15	0	2	2	17	0.18	0
North B	61 925	0	0	0	0	0	0.00	
Nyamagana	229 277	919	244	48	123	1211	5.28	21
Nzega	458 603	327	22	0	0	349	0.76	6
Pangani	49 181	100	0	16	14	116	2.36	0
Rombo	281 870	150	0	140	12	290	1.03	0
Ruangwa	136 595	66	0	20	16	86	0.63	0
Rufiji	215 726	0	0	0	0	0	0.00	
Rungwe	345 294	529	0	62	16	591	1.71	0
Same	233 864	193	24	65	14	282	1.21	11
Sengerema	539 495	480	10	81	85	571	1.06	2
Serengeti	199 408	153	0	41	20	194	0.97	0
Shinyanga Rural	321 256	82	15	0	0	97	0.30	15
Shinyanga Urban	164 814	260	188	0	0	448	2.72	42
Sikonge	154 252	75	0	0	0	75	0.49	0
Simanjiro	159 242	122	142	68	68	332	2.08	54
Singida Rural	443 916	336	0	0	0	336	0.76	0

District	Population	Number of beds					Density per 10 000	Private (%)
		Public	Private	Maternity	Delivery	Total		
Singida Urban	139 697	238	16	0	0	254	1.82	6
Songea Rural	174 667	0	0	0	45	0	0.00	
Songea Urban	151 429	403	0	64	16	467	3.08	0
South	35 312	18	0	1	1	19	0.54	0
Sumbawanga Rural	421 851	133	0	36	52	169	0.40	0
Sumbawanga Urban	172 652	273	0	40	17	313	1.81	0
Tabora Urban	203 572	360	30	0	0	390	1.92	8
Tandahimba	220 908	159	0	53	39	212	0.96	0
Tanga	268 793	412	61	108	22	581	2.16	13
Tarime	559 790	508	64	74	51	646	1.15	11
Temeke	864 298	704	143	99	99	946	1.09	17
Town	239 080	606	0	16	16	622	2.60	0
Tunduru	269 798	372	0	96	71	468	1.73	0
Ukerewe	283 765	210	12	44	58	266	0.94	5
Ulanga	212288	268	0	10	15	278	1.31	0
Urambo	447281	110	30	0	0	140	0.31	21
Uyui	352345	8	0	0	0	8	0.02	0
West	196912	45	0	2	2	47	0.24	0
Wete	118394	111	0	3	3	114	0.96	0
Total	28 112 914	33 417	2488	5863	4261	41 768	1.10	7

Table D.3 Number and density of health workers by type and public/private sector, by district, Tanzania SAM 2006

District		Doctor		AMO		Clinical Officer		Nurse		Midwife		Medical asst.		Density* Per 10 000
		Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	
Arumeru	593 789	11	1	15	1	106	33	48	7	126	24	230	53	3.9
Arusha	321 278	12	3	27	85	0	0	86	29	131	96	340	122	14.6
Babati	352 201	3	1	14	0	53	11	23	0	162	10	152	14	6.0
Bagamoyo	253 561	4	0	8	1	56	0	19	0	14	0	96	22	1.8
Bariadi	703 298	1	1	6	2	54	0	13	1	26	2	138	12	0.7
Biharamulo	449 761	2	0	8	0	42	0	36	0	78	0	192	0	2.8
Bukoba Rural	424 914	2	4	4	0	35	7	9	8	72	45	90	15	3.4
Bukoba Urban	107 619	6	1	0	2	19	6	36	2	91	11	72	8	13.8
Bukombe	464 516	1	0	2	0	31	9	8	0	28	2	34	0	0.9
Bunda	299 815	3	0	10	0	43	3	14	0	83	3	196	4	3.8
Central	67 879	0	2	0	1	2	5	8	0	32	3	39	2	6.7
Chakechake	100 071	4	2	5	5	9	5	24	5	53	3	104	3	10.0
Chunya	233 902	0	0	6	1	30	0	16	0	34	0	155	2	2.4

District		Doctor		AMO		Clinical Officer		Nurse		Midwife		Medical asst.		Density* Per 10 000
		Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	
Dodoma Rural	478 611	1	3	2	10	38	6	9	21	65	25	265	77	2.8
Dodoma Urban	400 313	11	3	21	1	23	30	53	12	43	67	180	70	5.3
Geita	763 606	9	0	7	0	60	1	31	2	63	2	206	2	1.5
Hai	281 870	8	0	9	0	88	2	39	1	10	1	42	2	2.4
Hanang	238 144	1	0	7	0	34	1	12	0	71	4	54	10	4.0
Handeni	281 988	1	0	7	0	52	6	15	0	66	1	156	14	3.2
Igunga	370 694	3	0	7	0	47	6	32	0	79	0	131	112	3.3
Ilala	713 958	348	103	50	20	152	84	637	72	344	148	1152	102	24.1
Ileje	124 773	1	0	4	0	31	0	11	0	24	0	78	0	3.2
Ilemela	289 433	6	8	4	12	40	16	38	27	47	35	41	18	6.1
Iramba	406 799	0	0	7	0	34	0	23	0	66	0	163	0	2.4
Iringa Rural	128 942	1	0	5	0	65	1	10	0	32	1	141	1	3.8
Iringa Urban	259 268	4	1	16	1	31	9	42	0	80	15	120	35	6.1
Kahama	694 290	1	5	9	3	56	11	24	13	66	14	121	14	1.9
Karagwe	457 292	1	0	11	0	0	1	37	1	95	1	227	1	3.2
Karatu	208 563	3	0	6	2	32	5	12	0	54	5	155	23	3.9
Kasulu	548 131	4	0	16	0	61	3	21	0	93	0	196	0	2.4
Kibaha	149 426	13	3	19	2	64	8	45	0	113	7	191	21	13.5
Kibondo	363 418	0	0	7	1	37	2	10	0	58	0	205	3	2.1
Kigoma Rural	422 948	1	0	5	1	48	3	8	0	54	4	125	12	1.7
Kigoma Urban	201 202	2	1	12	4	17	9	31	3	59	11	173	42	6.1
Kilolo	215 864	1	0	3	0	42	0	6	0	27	0	101	6	1.7
Kilombero	355 219	6	0	14	0	52	6	48	0	51	0	197	0	3.4
Kilosa	538 065	3	2	12	1	74	6	24	1	51	9	191	10	1.9
Kilwa	172 432	1	0	2	1	37	0	14	0	33	0	76	0	3.0
Kinondoni	1 223 419	55	153	47	21	148	281	105	194	162	266	182	1 535	8.2
Kisarawe	104 816	4	0	6	1	34	4	18	0	29	2	78	0	5.7
Kishapu	280 728	0	2	2	0	41	11	4	4	15	16	68	22	1.5
Kiteto	171 438	0	0	3	0	15	1	15	0	28	0	64	0	2.7
Kondoa	460 132	1	0	7	1	22	0	22	0	21	5	83	12	1.2
Kongwa	274 972	1	0	6	1	39	5	12	2	57	4	48	2	3.0
Korogwe	289 105	0	2	5	0	19	3	5	0	26	1	70	11	1.3
Kwimba	338 325	2	1	7	0	37	1	81	0	85	0	103	1	5.2
Kyela	196 777	2	0	4	0	36	1	15	0	47	3	78	2	3.6
Lindi Rural	230 661	1	0	5	0	34	0	18	0	30	0	77	0	2.3
Lindi Urban	51 930	2	0	9	0	13	3	21	0	64	0	83	6	18.5
Liwale	81 310	1	0	2	0	23	0	6	0	12	0	45	2	2.6
Ludewa	140 002	1	0	6	0	51	0	17	0	90	0	177	0	8.1
Lushoto	457 529	2	0	11	1	71	2	20	1	39	1	296	7	1.6

District		Doctor		AMO		Clinical Officer		Nurse		Midwife		Medical asst.		Density* Per 10 000
		Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	
Mafia	43 131	1	0	4	0	15	2	8	0	11	0	47	2	5.6
Magu	449 320	2	2	8	1	55	2	17	0	46	3	140	3	1.7
Makete	113 029	4	0	7	0	39	2	56	0	41	2	110	3	9.7
Manyoni	232 397	8	0	11	0	39	1	33	0	137	0	236	6	8.1
Masasi	480 327	7	1	11	2	44	4	35	1	98	7	212	8	3.4
Maswa	357 165	0	0	11	0	40	5	9	0	18	0	98	16	1.1
Mbarali	265 134	0	0	8	0	147	1	12	0	36	3	87	4	2.2
Mbeya Rural	286 854	2	1	5	0	33	1	12	0	39	3	101	4	2.2
Mbeya Urban	308 830	3	4	9	4	40	18	8	20	89	23	105	51	5.2
Mbinga	447 758	4	1	9	0	91	0	48	0	168	0	390	2	5.1
Mbozi	584 825	2	1	10	1	82	4	14	0	96	8	184	10	2.3
Mbulu	277 027	6	0	14	0	55	2	131	0	95	1	204	17	8.9
Meatu	291 718	1	0	4	1	15	2	5	1	15	1	53	4	1.0
Micheweni	97 780	0	1	0	0	3	0	9	1	17	1	41	1	3.0
Misungwi	275 683	3	0	3	0	55	0	22	0	47	0	76	0	2.7
Mkoani	107 277	6	0	1	1	3	3	25	5	40	0	77	1	7.3
Mkuranga	201 977	5	0	4	0	55	4	14	0	36	1	51	13	3.0
Monduli	206 758	2	1	5	1	51	13	16	2	34	5	102	15	3.2
Morogoro Rural	278 824	1	0	5	0	69	0	6	0	39	0	117	0	1.8
Morogoro Urban	264 216	14	1	17	3	78	34	38	9	60	13	109	53	5.9
Moshi Rural	431 386	2	2	9	6	72	43	57	5	100	62	343	121	5.6
Moshi Urban	169 927	13	12	14	10	48	32	70	6	142	30	210	94	17.5
Mpanda	466 752	1	0	7	1	51	0	20	0	42	0	147	3	1.5
Mpwapwa	282 758	1	0	8	0	0	0	15	0	43	0	130	0	2.4
Mtwara Rural	215 673	0	0	1	0	29	0	3	0	21	0	64	0	1.2
Mtwara Urban	105 891	7	0	8	1	7	1	36	3	64	5	99	2	11.7
Mufindi	302 601	2	2	9	0	69	14	14	6	41	11	187	51	2.8
Muheza	304 481	9	2	12	2	39	10	24	0	90	9	198	8	4.9
Muleba	415 818	9	0	11	0	29	0	70	0	169	4	164	6	6.3
Musoma Rural	371 841	0	0	4	0	28	0	5	0	32	0	106	0	1.1
Musoma Urban	141 214	8	0	15	3	16	10	19	3	80	6	180	13	9.5
Mvomero	280 475	3	1	4	2	49	15	2	17	39	48	96	0	4.1
Mwanga	127 476	1	0	5	0	45	1	15	0	44	1	210	4	5.2
Nachingwea	178 836	0	0	4	1	19	2	20	1	33	0	93	0	3.3
Namtumbo	191 508	0	0	2	0	34	0	6	0	27	0	59	0	1.8
Newala	197 449	0	0	7	0	26	0	12	0	41	0	137	3	3.0
Ngara	354 813	2	0	1	1	39	1	8	1	42	1	109	4	1.6

District		Doctor		AMO		Clinical Officer		Nurse		Midwife		Medical asst.		Density* Per 10 000
		Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	
Ngorongoro	145 101	5	0	2	1	18	1	10	0	29	2	90	3	3.4
Njombe	457 989	3	2	11	2	84	8	39	3	192	16	272	26	5.9
Nkasi	241 023	2	0	9	0	35	0	13	0	41	0	176	0	2.7
North A	93 325	0	0	1	1	4	0	2	0	27	1	12	2	3.4
North B	61 925	0	0	1	0	1	1	2	0	25	4	16	3	5.2
Nyamagana	229 277	51	90	82	8	41	20	581	53	145	52	129	266	46.3
Nzega	458 603	10	0	10	0	69	6	34	0	82	18	163	18	3.4
Pangani	49 181	1	0	6	0	30	2	12	0	37	0	70	1	11.4
Rombo	281 870	4	0	7	0	48	7	44	1	63	3	158	7	4.3
Ruangwa	136 595	1	0	1	0	25	2	10	0	23	0	41	2	2.6
Rufiji	215 726	2	0	4	0	43	1	1	0	17	0	115	0	1.1
Rungwe	345 294	2	0	5	0	70	1	23	2	93	1	240	16	3.6
Same	233 864	0	1	8	4	59	8	25	3	64	4	231	33	4.7
Sengerema	539 495	2	0	7	0	70	2	19	1	79	1	188	5	2.0
Serengeti	199 408	1	0	5	2	27	2	13	0	16	2	151	2	2.0
Shinyanga Rural	321 256	0	0	2	0	42	67	8	0	15	1	10	0	0.8
Shinyanga Urban	164 814	6	0	8	0	26	31	28	0	85	23	15	0	9.1
Sikonge	154 252	1	0	4	0	21	1	9	0	55	0	63	7	4.5
Simanjiro	159 242	0	0	2	1	38	13	4	2	91	8	93	21	6.8
Singida Rural	443 916	6	0	6	0	51	0	19	0	145	0	180	0	4.0
Singida Urban	139 697	8	2	8	0	23	4	8	3	80	8	102	8	8.4
Songea Rural	174 667	5	0	7	0	54	3	23	0	110	1	240	2	8.4
Songea Urban	151 429	6	2	17	0	35	9	58	1	109	0	166	16	12.7
South	35 312	0	0	1	0	3	0	4	0	28	0	34	0	9.3
Sumbawanga Rural	421 851	1	0	5	0	61	0	8	0	44	0	201	0	1.4
Sumbawanga Urban	172 652	2	0	12	2	28	4	35	1	82	3	104	15	7.9
Tabora Urban	203 572	3	3	6	1	33	7	8	1	35	1	72	24	2.8
Tandahimba	220 908	1	0	4	0	16	0	5	0	17	0	56	0	1.2
Tanga	268 793	9	4	25	7	76	63	53	3	132	77	218	128	11.5
Tarime	559 790	4	5	12	3	72	10	34	4	79	13	0	0	2.8
Temeke	864 298	27	8	63	18	323	76	102	9	295	47	549	126	6.6
Town	239 080	25	6	17	9	67	33	46	4	337	30	320	65	19.8
Tunduru	269 798	9	0	9	0	25	1	19	0	31	0	155	0	2.5
Ukerewe	283 765	1	0	3	0	26	1	55	2	45	2	112	2	3.8
Ulanga	212 288	2	0	6	0	23	0	21	0	50	0	154	0	3.7
Urambo	447 281	0	0	4	0	45	7	9	0	37	0	107	31	1.1

District		Doctor		AMO		Clinical Officer		Nurse		Midwife		Medical asst.		Density* Per 10 000
		Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	Pub	Pri	
Uyui	352 345	0	0	0	0	14	2	0	0	8	0	36	12	0.2
West	196 912	3	2	3	10	26	34	8	3	40	33	50	22	5.2
Wete	118 394	4	0	2	3	5	3	18	3	68	2	64	5	8.4
Total	38 112 914	884	455	1139	295	5644	1264	4255	586	8542	1448	18 202	3822	4.6

AMO: assistant medical officer; Priv: private ownership; Pub: public ownership.

Annex E. QUESTIONNAIRES: DISTRICT

UPATIKANAJI WA HUDUMA ZA AFYA

DODOSO LA WILAYA

KWA MATUMIZI YA TAARIFA MUHIMU

Tafadhali andika taarifa vizuri kwa kutumia kalamu ya wino wa bluu (Blue Ball pen).

01	Saa ya kuanza usaili ***Interview start time***	_____
02.	Tarehe (siku/mwezi/mwaka) ***Date***	□□/□□/□□□□
03.	Jina la Mkoa ***Regional name***	_____
04.	Msimbo wa Mkoa ***Regional code***	□□
05	Jina la Wilaya ***District name***	_____
06.	Msimbo wa Wilaya ***District code***	□□
07.	Idadi ya watu katika wilaya ***District population*** Chanzo: Makadirio yatoke katika sensa ya watu na makazi ya mwaka 2002	□□□□□□
08.	Majina ya Msaili (la mwisho, la mwanzo) ***Interviewer name***	_____
09.	Msimbo wa Msaili ***Interviewer code***	□□□
010.	Majina ya msailiwa (la mwisho, la kwanza) ***Respondent name***	_____

011.	Kazi/cheo-cha msailiwa *Weka alama ya vema kwenye cheo kinachohusika* ***Respondent job title***	☐ Mganga Mkuu wa wilaya ☐ Afisa wa wilaya ☐ Katibu wa Afya wa wilaya ☐ Mfamasia wa wilaya ☐ Fundi sanifu Maabara wa wilaya ☐ Afisa Muuguzi wa Wilaya ☐ Mratibu wa Afya ya Uzazi na Mtoto Wengineo (Elezea):_____
012.	Taarifa za mawasiliano za msailiwa (ikiwemo msimbo wa simu wa eneo) **<u>Kwa mfano</u>**: 022 ni msimbo wa simu ya mkoa wa Dar es Salaam ***Respondent contact info.***	Namba ya simu ya mezani _____ Namba ya simu ya mkononi _____ Namba ya Faksi: _____ Barua pepe _____ Nyingine Elezea _____

Yaliyomo ndani ya dodoso

Sehemu ya Kwanza: Upatikanaji wa huduma na watumishi wa afya katika wilaya.

Sehemu ya Pili: Makadirio ya kiwango cha huduma maalum katika wilaya

Sehemu ya Tatu: Upatikanaji wa Huduma kwa kila kituo

Sehemu ya Kwanza:Upatikanaji wa huduma na watumishi wa afya katika wilaya. Sehemu hii ya dodoso inaangalia upatikanaji maalum wa rasilimali watu na vifaa katika wilaya.

Angalizo kwa Msaili : Tafadhali onyesha majibu ya msailiwa katika safu ya mwisho yenye rangi ya kijivu.

Namba	Swali	Jibu
Tungependa kuanza usaili kwa kuulizia kuhusu upatikanaji maalum wa rasilimali watu na vifaa katika wilaya nzima. Tutakuuliza ukadirie kwa kutumia ujuzi na uwezo wako idadi ya rasilimali maalum zilizopo katika wilaya. Vile vile tutaulizia upatikanaji wa huduma maalum katika wilaya.		
101	Idadi ya vituo vyote vya serikali katika wilaya ***Number of public health facilities***	☐☐☐☐
102	Idadi ya vituo vya mashirika ya kujitolea na yasiyo ya kiserikali ***Number of voluntary (non-profit and NGO) health facilities***	☐☐☐☐ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
103	Idadi ya vituo vya mashirika ya umma na makampuni ***Number of parastatal health facilities***	☐☐☐☐ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
104	Idadi ya vituo vya binafsi ***Number of private (for-profit) health facilities***	☐☐☐☐ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
105	Madaktari na Madaktari Bingwa katika vituo vya Serikali na mashirika ya dini ***Medical doctors and specialists in public and voluntary facilities***	☐☐☐☐ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
106	Madaktari na Madaktari Bingwa katika vituo vya mashirika ya umma, makampuni na binafsi ***Medical doctors and specialists in private and parastatal facilities***	☐☐☐☐ INGIZA "0" **kama hakuna**

Namba	Swali	Jibu
		INGIZA "999" kama **haijulikani**
107	Madaktari Wasaidizi katika vituo vya serikali na mashirika ya dini ***Assistant medical officers in public and voluntary facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
108	Madaktari Wasaidizi katika mashirika ya umma, makampuni na vituo binafsi ***Assistant medical officers in private and parastatal facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
109	Madaktari wa Kinywa na Meno katika vituo vya serikali na mashirika ya dini ***Dental surgeons in public and voluntary facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
110	Madaktari wa Kinywa na Meno katika vituo vya mashirika ya umma, makampuni na vituo binafsi ***Dental surgeons in private and parastatal facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
111	Waganga Wasaidizi meno na Madaktari Wasaidizi Meno katika vituo vya serikali na mashirika ya dini. ***Dental assistants and assistant dental officers in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
112	Waganga Wasaidizi Meno na Madaktari Wasaidizi Meno katika vituo vya mashirika ya umma, makampuni na vituo binafsi ***Dental assistants and assistant dental officers in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
113	Maafisa Wauguzi Daraja 'A' katika vituo vya serikali na mashirika ya dini. ***Nurse "A" in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**

Namba	Swali	Jibu
114	Maafisa Wauguzi Daraja 'A' katika vituo binafsi mashirika ya umma na makampuni ***Nurse "A" in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
115	Wauguzi Daraja 'B' katika vituo vya serikali na mashirika ya dini ***Nurse "B" in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
116	Wauguzi Daraja 'B' katika vituo vya binafsi mashirika ya umma na makampuni ***Nurse "B" in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
117	Waganga Wasaidizi na Waganga Wasaidizi vijijini katika vituo vya serikali na mashirika ya dini ***Clinical officers, including medical aides, in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
118	Waganga Wasaidizi na Waganga Wasaidizi vijijini katika vituo vya binafsi na mashirika ***Clinical officers, including medical aides, in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
119	Wahudumu wa Afya katika vituo vya serikali na mashirika ya dini ***Medical attendants/hospital orderlies in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
120	Wahudumu wa Afya katika vituo vya binafsi, mashirika ya umma na makampuni ***Medical attendants/hospital orderlies in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**

Namba	Swali	Jibu
121	Fundi Sanifu Maabara katika vituo vya serikali na mashirika ya dini ***Laboratory technicians (includes technologists) in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
122	Fundi sanifu Maabara katika vituo vya binafsi, mashirika ya umma na makampuni ***Laboratory technicians includes technologists) in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
123	Wafamasia katika vituo vya serikali na mashirika ya dini ***Pharmacists in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
124	Wafamasia katika vituo vya binafsi, mashirika ya umma na makampuni. ***Pharmacists in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
125	Fundi Sanifu Madawa katika vituo vya serikali na mashirika ya dini ***Pharmaceutical technicians in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
126	Fundi Sanifu Madawa katika vituo binafsi, mashirika ya umma na makampuni ***Pharmaceutical technicians in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
127	Fundi Sanifu kumbukumbu za afya katika vituo vya serikali na mashirika ya dini ***Health recorders in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
128	Fundi Sanifu Kumbukumbu za afya katika vituo binafsi, mashirika ya umma na makampuni ***Health recorders in private and parastatal***	□□□□ INGIZA "0" **kama**

Namba	Swali	Jibu
	health facilities	**hakuna** INGIZA "999" kama **haijulikani**
129	Makatibu wa Afya katika vituo vya vya serikali na mashirika ya dini ***Full-time or dedicated health secretaries in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
130	Makatibu wa Afya katika vituo vya binafsi, mashirika ya umma na makampuni ***Full-time or dedicated health secretaries in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
Tunapenda kuuliza kuhusu vifaa maalum vya afya vinavyopatikana katika wilaya nzima.		
131	Idadi ya vitanda vya kulaza wagonjwa (ukiondoa vitanda vya wazazi na watoto wachanga) katika vituo vya serikali na mashirika ya dini. *Kwa vitanda vya kulalia wagonjwa tunamaanisha vitanda vizima na vyenye magodoro* ***In-patient beds in public and voluntary health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
132	Idadi ya vitanda vya kulaza wagonjwa (ukiondoa vitanda vya wazazi na watoto wachanga) katika vituo vya binafsi, mashirika ya umma, na makampuni *Kwa vitanda vya kulalia wagonjwa tuna maanisha vitanda vizima na vyenye magodoro* ***In-patient beds in private and parastatal health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**

133	Idadi ya vitanda vya kuzalia kwenye vituo vyote ***Delivery beds in all health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**
134	Idadi ya vitanda vya kulalia wazazi kwenye vituo vyote ***Maternity beds in all health facilities***	□□□□ INGIZA "0" **kama hakuna** INGIZA "999" kama **haijulikani**

Huduma za Utoaji Damu: Tungependa kuulizia upatikanaji wa utoaji damu na vipimo vyake katika wilaya. Pia tungependa kujua namna wilaya inavyopata damu inayohitajika kwa ajili ya huduma za utoaji damu. *Majibu ya maswali yote ni ndiyo au hapana na yajibiwe pale linapohusika.*		
135	Je, huduma za utoaji damu zinapatikana ndani ya wilaya? * Huduma za Utoaji wa damu ina maana ni uwezo wa kutoa damu na Kumpa mgonjwa. Na hatuulizii kuwepo kwa banki ya damu. ***Availability of blood transfusion services***	Hapana ……..1 Ndiyo……2 **Kama hapana NENDA swali namba 142**
136	Je, unafahamu kuwepo na upungufu wa damu katika huduma za utoaji damu katika siku saba zilizopita kwa ajili ya huduma za utoaji damu? ***Blood shortage in the last 7 days***	Ndiyo…….....1 Hapana…....2
137	Je, Kuna watu wanaojitolea kutoa damu ndani ya wilaya? ***Blood collected from donors***	Ndiyo……1 Hapana……2 **Kama hapana NENDA swali namba 142**
Katika wilaya hii, tafadhali onyesha watoaji wakuu wa damu na vyanzo **vikuu** vya damu		
138	Wanaojitolea bure ***Voluntary***	Ndiyo…….....1 Hapana…....2
139	Wanaojitolea kwa kulipwa ***Paid***	Ndiyo…….....1 Hapana…....2
140	Wanaojitolea kwa ajili ya ndugu na marafiki ***Relative or friend***	Ndiyo…….....1 Hapana…....2
141	Je, hii damu inapimwa/na kuchunguzwa kama ina magonjwa hatari ikiwemo virusi vya UKIMWI.? ***Blood screening***	Ndiyo…….....1 Hapana…....2

Huduma za Maabara : Tafadhali, fikiria kama huduma zifuatazo zinapatikana katika wilaya hii. *Maswali haya majibu yake ni ndiyo au hapana*

142	*Blood count*	Ndiyo……..1 Hapana……..2
143	*Blood sugar levels*	Ndiyo……..1 Hapana……..2
144	*Haemoglobin (Hb)*	Ndiyo……..1 Hapana……..2
145	*Liver enzymes*	Ndiyo……..1 Hapana……..2
146	*CD4+ cell count*	Ndiyo……..1 Hapana……..2

Rasilimali nyinginezo zinazopatikana: *Maswali haya majibu yake ni ndiyo au hapana*

147	Je, katika wilaya kuna vituo ambavyo mgonjwa anaweza kuwekewa Oksijeni? ***Oxygen***	Ndiyo……..1 Hapana……..2
148	Je, katika wilaya kuna vituo ambavyo mgonjwa anaweza kupata huduma ya x-ray ***X-rays***	Ndiyo……..1 Hapana……..2

Rasilimali ya Mawasiliano na Teknolojia : Tungependa kukuulizia kuhusu upatikanaji wa mawasilino na vifaa vya teknolojia. *Maswali haya majibu yake ni ndiyo au hapana.*

149	Je, Kuna kompyuta zinazofanyakazi kwa ajili ya Timu ya Uendeshaji wa Huduma Afya (CHMT) wilayani ? ***Availability of computers***	Ndiyo……..1 Hapana……..2
150	Je, Kuna mtandao wa “Internet unaofanyakazi kwa ajili ya Timu ya Uendeshaji Huduma za Afya (CHMT) wilayani? ***Availability of internet***	Ndiyo……..1 Hapana……..2
151	Je, Kuna mtandao wa simu za mezani kwa ajili ya CHMT unaofanyakazi ? ***Availability of basic telephone for the district health team***	Ndiyo……..1 Hapana……..2
152	Je, mtandao wa simu ya mkononi unapatikana katika wilaya ? ***Availability of cellular networks***	Ndiyo……..1 Hapana……..2
153	Je, CHMT ina mtandao wa simu za upepo? unaofanyakazi? ***Availability and functionality of radio connections***	Ndiyo……..1 Hapana……..2

Huduma za Sindano: Tungependa kuulizia utumiaji wa sindano katika vituo vya

huduma ya afya wilayani.		
154	Onyesha aina ya sindano inayotumika katika vituo wilayani mara kwa mara sio zile za chanjo ***Most common needles and syringes***	Disposable……..……1 Re-usable……..2 Auto-destruct……3
Vifaa vya Utakasaji: Swali lifuatalo linaulizia kuhusu vifaa vinavyotumika mara kwa mara kwa ajili ya utakasaji katika utoaji huduma za afya.		
155	Onyesha kifaa cha utakasaji kinachotumika mara kwa mara wilayani. ***Most common sterilization method***	Autoclave……..1 Sterilizers……..2 Pressure pot……...3 Boiling pot……4 Nyinginezo……..…5 (Elezea): _____ _____

Wahisani katika wilaya: Tungependa kuulizia kuhusu kuwepo kwa wahisani kwa ajili ya kutoa fedha au utaalam katika shughuli za serikali au mashirika yasiyo ya kiserikali (NGO). *Maswali haya majibu yake ni ndiyo au hapana*.		
156	Je, kuna wahisani wa kutoka nchi mbalimbali wanaotoa msaada wa fedha au utaalamu katika wilaya? ***Presence of bilaterals*** Wahisani wa nchi mbalimbali ni kama USAID, DFID, JICA, DANIDA n.k	Ndiyo……..1 Hapana……..2
157	Je, kuna wahisani wa mashirika ya kimataifa wanaotoa msaada wa fedha au utaalamu katika wilaya? ***Presence of multi-laterals*** Wahisani wa mashirika ya Kimataifa ni kama mashirika ya UN, UNICEF, WHO na Benki Kuu ya Dunia.	Ndiyo……..1 Hapana……..2
158	Je, kuna mashirika yasiyo ya kiserikali (NGOs) yanayotoa msaada wa fedha au utaalamu kwa kusaidia huduma za afya wilayani? ***Presence of NGOs***	Ndiyo……..1 Hapana……..2
159	Je, kuna watu binafsi wanaosaidia moja kwa moja kutoa msaada wa fedha au misaada mingine kwa ajili ya huduma za afya katika wilaya ? ***Presence of individual supporters***	Ndiyo……..1 Hapana……..2
Malipo kwa ajili ya huduma zinazotolewa au madawa. Tunapenda kuuliza kama huduma zifuatazo zinalipiwa na wagonjwa kwa ajili ya upungufu wa upatikanaji wa vifaa au madawa. Maswali haya majibu yake ni ndiyo au hapana.		
160	Matibabu ya kifua kikuu ***TB treatment***	Ndiyo……..1 Hapana……..2
161	Dawa za kupunguza maumivu kwa wagonjwa wa UKIMWI ***Pain relief for HIV/AIDS***	Ndiyo……..1 Hapana……..2
162	Dawa za kutibu magonjwa nyemelezi kwa wagonjwa wenye UKIMWI ***Drugs and treatment for OIs***	Ndiyo……..1 Hapana……..2
163	Dawa za Kupunguza makali ya UKIMWI zinazotolewa kwenye vituo vya serikali (***ARVs***)	Ndiyo……..1 Hapana……..2

164	Dawa kwa tiba ya Nimonia (Pneumonia) kwa watoto chini ya miaka mitano ***Antibiotics for pneumonia in use***	Ndiyo…….....1 Hapana……....2
165	(***ORS***) kwa watoto wenye kuharisha wenye chini ya umri miaka mitano.	Ndiyo…….....1 Hapana……....2
166	Vifaa muhimu wakati wa kujifungua (gloves, cotton, n.k.) ***Delivery kits***	Ndiyo…….....1 Hapana……....2
167	Vidonge vya Uzazi wa Mpango ***Oral contraceptive pills***	Ndiyo…….....1 Hapana……....2
Uhamasishaji wa Jamii kwa kutumia mbinu za kibiashara: Mwisho, tungependa kuuliza kuhusu kuwepo kwa kampeni za uhamasishaji wa Jamii kwa kutumia mbinu za kibiashara katika ya wilaya. *Maswali haya majibu yake ni ndiyo au hapana.* Uhamasishaji wa jamii kwa kutumia mbinu za kibiashara ni kampeni zinazotumia mabango, televisheni, radio, na nk kwa nia ya kuwa na tabia zinazotakiwa za kiafya. Tafadhali onyesha kama programu zifuatazo zipo au hazipo:		
168	Kampeni za uhamasishaji juu ya matumizi ya Kondom ***Condom social marketing***	Ndiyo…….....1 Hapana……....2
169	Kampeni za kutumia vyandarua vyenye viatilifu (ITN/vilivyotiwa dawa) ***Insecticide treated bednets***	Ndiyo…….....1 Hapana……....2

Sehemu ya Pili. Makadirio ya Kiwango cha huduma maalum. Sehemu hii ya dodoso inajaribu kupata makadirio ya kiwango cha huduma maalum 8 zinazotolewa katika vituo vya huduma ya afya katika wilaya. Makadirio hayo yachukuliwe kutoka vituo vyote vikiwemo vya binafsi. Na pia makadirio yalenge hali halisi ya utoaji huduma zilizopo.

Kuna aina nne za makisio ya viwango

Hakuna	Rasilimali watu haipo kwenye kituo chochote za serikali na vya binafsi katika wilaya
1 – 49%	Ikiwa rasilimali watu inapatikana kwenye chini ya nusu ya vituo vya serikali na vya binafsi katika wilaya
50 – 99%	Ikiwa rasilimali watu inapatikana kwenye zaidi ya nusu ya vituo vya serikali na vya binafsi katika wilaya
vyote	Ikiwa rasilimali watu inapatikana kwenye vituo vyote vya serikali na vya binafsi katika wilaya

Angalizo kwa msaili: Kwa kila huduma iliyoonyeshwa hapa chini tafadhali weka alama ya **X** kwenye safu moja tu inayohusika

Namba	Kigezo	Makisio ya Kiwango yaliyotolewa na Msailiwa			
Kwa kila huduma iliyotajwa hapa chini tafadhali kadiria kwa kutumia ujuzi ulionao asilimia ya vituo vya serikali na binafsi katika wilaya yenye angalau mtumishi mmoja wa afya aliyepata mafunzo katika kipindi cha miaka miwili iliyopita. Mafunzo haya yanaweza kuwa ameyapata chuoni kabla ya kuajiriwa au baada ya kuajiriwa (“Pre-Service” or “In-service training”). Hii inahusu swali la 201 mpaka 208).		haku na	1-49%	50-99%	Vituo vyote
201	Udhibiti wa magonjwa ya watoto chini ya miaka mitano kwa uwiano (***IMCI***)				
202	Uzazi salama (***Safe motherhood***/Life saving Skills)				
203	Uzazi salama kwa vijana wenye umri (10-18) ***Adolescent sex and reproductive health***				
204	Matibabu ya magonjwa nyemelezi yanayoambatana na ***HIV/AIDS treatment***				
205	PMTCT				
206	Ushauri Nasaha kwa ajili ya (HIV/AIDS) ***HIV/AIDS councelling***				
207	DOTS				
208	Menejimenti ya Huduma ya Afya				

Namba	Kigezo	Makisio ya Kiwango yaliyotolewa na Msailiwa			
	Health services management *Menejimenti ya Huduma ya Afya inahusisha wenye shahada kutoka vyuo vikuu vinavyotambulika) au mafunzo maalum kwa walio makazini. Na mafunzo hayo ni kama yafuatayo Mipango na bajeti ya huduma za afya, miradi ya afya na program, uhakiki wa ubora, uwekaji wa vigezo kwa ajili ya kupima maendeleo ya utekelezaji, kupanga kuongoza na kusimamia rasilimali zikiwemo fedha, vitendea kazi takwimu na taarifa za afya na jinsi ya kutumia muda wako katika kazi.				
Rasilimali nyinginezo					
209	Tafadhali kadiria, kwa ujuzi wako wote asilimia ya vituo vya serikali na vya binafsi ambavyo vinatoa tiba ya ugonjwa wa Kifua Kikuu vilivyoishiwa dawa za Kifua Kikuu katika mwezi uliopita. ***TB drug stockout***				
210	Tafadhali kadiria, asilimia ya vituo vyote vya serikali na binafsi vinavyotoa dawa ya Isoniazide kwa ajili ya kupunguza maambukizo ya kifua kikuu kati ya walioambukizwa virusi vya UKIMWI. ***INH***				
211	Tafadhali kadiria asilimia ya kliniki za wajawazito za serikali na binafsi zinazotoa dawa kwa kinga ya malaria kwa wajawazito (***IPT***)				
212	Tafadhali kadiria asilimia ya vituo katika wilaya vyenye vyanzo vya maji salama ***Improved water supply*** **Vyanzo vya maji salama** ni pamoja na maji ya bomba/mifereji, visima vilivyofunikwa, visima na chemchem zilizojengewa, uvunaji wa maji ya mvua na maji yanayoletwa kwenye matenki				
213	Please estimate the coverage of indoor residual spraying for malaria control in the district.				
214	Please estimate the coverage of immunization campaigns in the district.				
215	Please estimate the percentage of public **and** private facilities that provide antiretroviral therapy (ART)				
216	Please estimate the percentage of public **and** private facilities that offer HIV antibody testing				
217	Please estimate the percentage of public **and** private facilities that provide HIV prevention education				

Namba	Kigezo	Makisio ya Kiwango yaliyotolewa na Msailiwa			

Sehemu ya Tatu: Orodha ya vituo vya Huduma ya Afya.
Kama ilivyo sehemu ya 1, 2, na 3 uliza kila kuhusu kila kituo huduma zinapatikana. Tungependa kujua kila kituo ni huduma zipi kumi zinazotolewa na kituo.

Angalizo kwa Msaili: Taarifa za awali kwa kila kituo zijazwe kwanza kabla hujakutana na mtoa taarifa muhimu. Taarifa Muhimu ni hizi zifuatazo:-

- Jina la Kituo
- Msimbo wa Kituo
- Jina la Mji/Kijiji
- Aina ya Kituo
- Mwaka kituo kilipoanza kazi

Wamiliki na aina ya vituo

Hospitali ya Rufaa	1
Hospitali ya Mkoa/Cottage	2
Hospitali ya Wilaya	3
Hospitali Teule ya Wilaya	4
Hospitali nyinginezo	5
Kituo cha Afya	6
Zahanati/PHCU	7
Nyinginezo	8

Kuhakiki orodha ya vituo vya Afya:

Kabla ya mahojiano, orodha ya vituo vya afya lazima iangaliwe na mtoa taarifa muhimu ili kuhakikisha kuwa ni kamili. Kwa vituo vya ziada viorodheshwe na taarifa za utoaji huduma lazima zikusanywe. Ongeza mstari katika fomu ya kuorodhesha na ingiza taarifa za vituo vipya.

Kwa vituo vya Ushauri nasaha kwa hiari (VCT), tafadhali viorodheshe, ukionyesha kuwa vinatoa ushauri nasaha na kupima virusi vya UKIMWI.

Chini ya safu inayoulizia kama huduma zinapatikana onyesha huduma ya ushauri nasaha kuhusu virusi vya UKIMWI.

					1	2	3	4	5	6	7	8	9	10	11
Jina la Kituo	Msimbo wa Kituo	Jina la Mji/Kijiji	Aina ya Kituo	Mwaka kituo kilipoanza kazi	PMTCT	Ushauri nasaha na kupima virusi vya UKIMWI	Dawa ya Kupunguza makali ya UKIMWI	Katambua TB kwa kupitia Maabara	Kutambua TB kwa nija za kawaida	Tiba ya Kifua Kikuu	Upasuaji wakati wa kujifungua	Huduma ya kutoa damu kwa dharura	Utunzaji wa wagonjwa wa UKIMWI kwenje Jamii	Outreach for MCH TB or leprosy	Malaria microscopy

213	Muda wa kumaliza Usaili ***Interview end time***	_____

FACILITY SAM

UPATIKANAJI WA HUDUMA ZA AFYA

DODOSO LA WILAYA

KWA MATUMIZI YA VITUO VYA HUDUMA YA AFYA.
DODOSO MOJA LITUMIKE KWA KILA KITUO

Tafadhali andika taarifa vizuri kwa kutumia kalamu ya wino bluu (Blue Ball Pen)

01.	Muda wa Kwanza Usaili Interview start time:	_____
02.	Tarehe (siku/mwezi/mwaka) Date	□□/□□/□□□□
03.	Jina la Mkoa Regional name	_____
04.	Msimbo wa Mkoa Regional code	□□
05.	Jina la Wilaya District name	_____
06.	Msimbo wa wilaya Distrcit code	□□
07.	Jina la Kata/Shehia Ward name	_____
08.	Msimbo wa Kata/Shehia Ward code	□□□
09.	Town/Village name	_____
010.	Jina la Kituo Facility name	_____
011.	Msimbo wa Kituo Facility code	□□□

012.	Mmiliki wa Kituo Ownership	Weka alama ya vema kwenye kiboksi **kimoja** hapa chini Please check one box below:
	Serikali Public (government owned) facility	☐
	Mashirika ya Kujitolea na Dini. Voluntary. These are private, non profit facilities.	☐
	Mashirika ya Umma na Makampuni. Parastatal. Examples are employer-based facilities.	☐
	Binafsi Private, for profit	☐
013.	Aina ya Kituo Facility type	Weka alama ya vema kwenye kiboksi **kimoja** hapa chini Please check one box below:
	Hospitali ya Rufaa na hospitali maalum Referal hospital	☐
	Hospitali ya Mkoa/cottage hospital kwa Zanzibar Regional/cottage hospital	☐
	Hospitali ya Wilaya District designated hospital (a private facility that is designated by the government to be a district hospital)	☐
	Hospitali Teule ya Wilaya District hospital	☐
	Hospitali nyinginezo. Other hospital	☐
	Kituo cha Afya Health center	☐
	Zahanati /PHCU – kwa Zanzibar Dispensary/primary health center	☐
	Other type of facility	☐

014.	Mwaka kituo kilipoanza kazi Year facility officially began operating	□□□□ ANDIKA "9999" Kama mwaka haufahamiki
015.	Majina ya Msaili (la mwisho/la kwanza) Interviewer name	_____
016.	Msimbo wa Msaili Interviewer code	□□
017.	Majina ya Msailiwa (la mwisho/la kwanza): Respondent name	_____
018.	Kazi/cheo cha Msailiwa Respondent job title	_____
019.	Namba ya simu, faksi ya kituo (andika msimbo wa eneo) **Kwa mfano**: 022, ni msimbo wa simu za Mkoa wa Dar es salaam. Facility contact information	Namba ya simu ya mezani Telephone 1: _____
		Namba ya simu ya mkononi Telephone 2: _____
		Namba ya Faksi: Fax _____
		Barua pepe Email _____
		Nyinginezo Other _____
0120.	Facility geographic co-ordinates:	Latitude (Northings):_____ Longitude (Eastings):_____ Altitude:_____

Yaliyomo Ndani ya Dodoso:

Questionnaire overview:

Sehemu ya Kwanza: Sifa za ujumla za Kituo

Section 1: General characteristics

Sehemu ya Pili: Vifaa vya kutolea Huduma za Afya

Section 2: General purpose equipment

Sehemu ya Tatu: Sindano na Vifaa vya Kutakasia

Section 3: Injection and sterilization equipment

Sehemu ya Nne: Raslimali Watu

Section 4: Human resources

Sehemu ya Tano: Watumishi waliopata Mafunzo

Section 5: Trained staff

Sehemu ya Sita: Madawa

Section 6: Drugs and commodities

Sehemu ya Saba: Vipimo vya Maabara

Section 7: Lab tests

Sehemu ya Nane: Taarifa za Huduma zipatikanazo kwenye Kituo

Section 8: Information on interventions available in the facility

Section 1. General characteristics.
Sehemu ya Kwanza. Taarifa za Ujumla za Kituo. Sehemu hii ya dodoso inaangalia sifa ya kituo ikiwa ni pamoja na idadi ya wagonjwa wa nje, idadi ya wagonjwa waliolazwa na idadi ya vitanda vya wazazi. Pia inaulizia kuwepo kwa maji, simu na simu ya upepo.

Angalizo kwa Msaili : Tafadhali onyesha majibu ya msailiwa katika safu ya mwisho yenye rangi ya kijivu kwa mwezi wa **mwisho** ina maana kuwa mwezi wa mwisho **uliokamilika.**

Namba	Swali	Jibu
Tunataka kufahamu idadi ya wagonjwa na idadi ya vitanda vilivyopo pia tunapenda kufahamu idadi ya vitanda vilivyopo. Maswali yafutayo yanaulizia kuwepo kwa rasilimali kwa ujumla.		
101	Wagonjwa wangapi wa nje walitibiwa katika kituo hiki mwezi uliopita How many out-patients were seen in this facility during the previous month?	□□□□□
102	Je, Kituo kina vitanda vya kujifungulia? (Vitanda vya kujifungulia tunamaanisha vitanda vizima na vinavyotumika) Does this facility have delivery beds?	Ndiyo……..1 **Kama Ndiyo, INGIZA IDADI YA VITANDA:** □□□□ Hapana…….2
103	Je, Kituo kina vitanda vya kulalia wazazi? Kwa vitanda vya kulalia wazazi tuna maanisha vitanda vizima na vyenye magodoro Does this facility have maternity beds?	Ndiyo……..1 **Kama Ndiyo, INGIZA IDADI YA VITANDA:** □□□□ Hapana…….2

104	Je, kituo kina vitanda vya kulaza wagonjwa (ukiondoa vitanda vya wazazi na watoto wadogo)? Kwa vitanda vya kulalia wagonjwa tuna maanisha vitanda vizima na vyenye magodoro Does this facility have in-patient beds (excluding baby cots and maternity beds)?	Ndiyo……..1 **Kama Ndiyo, INGIZA IDADI YA VITANDA:** □□□□ Hapana.....2 **Kama Hapana, Nenda hadi Swali Namba 106**
105	Ni wagonjwa wangapi waliolazwa katika kituo hiki mwezi uliopita? How many in-patients were admitted in this facility during the previous month?	□□□□
106	Does this facility offer child immunization services?	Ndiyo ……..1 Hapana ……2 **KAMA HAPANA NENDA 108**
107	How many children were immunized* in the previous month? * All vaccinations combined	□□□ ENTER "0" if none .

Maswali yafuatayo yanaulizia kuwepo kwa rasilimali kwa ujumla. The following questions ask about general resources available in the facility.		
108	Katika kituo hiki ni kipi chanzo kikuu cha maji? What is the main source of water in this facility?	Maji ya Bomba/Mfereji .....1 Visima vilivyowazi……..2 Visima vilivyojengewa/kufunikwa .....3 Mito au Maziwa….....4 Maji ya Mvua……...5 Maji yaletwayo kwa matanki……..…….6 Nyinginezo……7
109	Je, Kituo kina simu ya mezani inayofanya kazi? Does the facility have a functioning land line telephone?	Ndiyo……....1 Hapana……....2
110	Je, Kituo kina simu ya mkono inayofanya kazi (Aidha ya kituo au ya mtu binafsi)? Does the facility have functioning cellular telephones (either private or supported by the facility)?	Ndiyo……....1 Hapana……....2
111	Je, Kituo kina simu ya upepo inayofanya kazi? Does the facility have a functioning short-wave radio for radio calls?	Ndiyo……....1 Hapana……....2

112	Je, kituo kina kompyuta inayofanya kazi? Does the facility have a functioning computer (desktop or laptop) for staff?	Ndiyo .....1 Hapana.....2 **KAMA HAPANA NENDA 114**
113	Je, kituo kina huduma ya barua pepe kwa ajili ya watumishi? Does this facility have functioning internet services for staff?	Ndiyo……..... 1 Hapana……..2
Tungependa kuulizia miongozo inayopatikana katika kituo hiki. Je, miongozo ifuatayo ipo ? We would now like to ask you about guidelines available in this facility. Are guidelines for the following available here:		
114	Matibabu ya Malaria Management of malaria	Ndiyo……..1 Hapana……..2
115	Udhibiti wa magonjwa ya magonjwa ya watoto kwa uwiano (IMCI) Integrated Management of Childhood Illness (IMCI)	Ndiyo……..1 Hapana……..2
116	Tiba kwa watu wenye magonjwa nyemelezi kwa watu wanaoishi na virusi vya UKIMWI (HIV/AIDS) Treatment and care of opportunistic infections for people living with HIV/AIDS	Ndiyo……..1 Hapana……..2
117	Tiba ya Magonjwa ya Ngono (STI) STI diagnosis and treatment	Ndiyo……..1 Hapana……..2
118	Tiba ya Kifua Kikuu na Ukoma TB and leprosy management	Ndiyo……..1 Hapana……..2
119	HIV counselling and antibody testing	Ndiyo……..1 Hapana……..2
120	Prevention of Mother To Child Transmission (PMTCT) of HIV	Ndiyo……..1 Hapana……..2
121	Management of TB/HIV co-infection	Ndiyo……..1 Hapana……..2

122	Integrated management of adult illness (IMAI)	Ndiyo……..1 Hapana……..2
123	Mental health and mental illness	Ndiyo……..1 Hapana……..2
124	Diabetes management	Ndiyo……..1 Hapana……..2
125	MTUHA guidelines (HMIS)	Ndiyo……..1 Hapana……..2
126	Family Planning	Ndiyo……..1 Hapana……..2

Section 2. General purpose equipment.
Sehemu ya Pili: Vifaa vya kutolea Huduma za Afya. Sehemu hii ya dodoso inaangalia upatikanaji wa vifaa vya kutolea huduma za afya.

Angalizo kwa Msaili: Sehemu hii imegawanyika sehemu mbili. Sehemu ya kwanza itumike kwa ajili ya Hospitali tu. Sehemu ya pili itumike katika vituo vinginevyo. Tafadhali Elezea jibu la Msailiwa safu ya mwisho. Tafadhali hakikisha kwa kufanya ukaguzi wa vifaa.

KWA MATUMIZI YA HOSPITALI TU:
FOR HOSPITALS ONLY:

Namba	Swali	Jibu
Tunapenda kufahamu kama vifaa vifuatavyo vinapatikana katika hospitali hii na vinafanya kazi.		
201	Mashine ya Mionzi (X-ray) X-ray machine	Ndiyo.....1 Hapana.....2
202	Mashine ya Oxygen Oxygen system/cylinders	Ndiyo.....1 Hapana.....2
203	Mashine ya utakasaji (Autoclave) Autoclave for sterilization	Ndiyo.....1 Hapana.....2
204	Kit za kuwekea Drip Infusion kits for intravenous solution	Ndiyo.....1 Hapana.....2
205	Meza ya upasuaji na vifaa vyake muhimu Operating theatre (with basic equipment)	Ndiyo.....1 Hapana.....2
206	Mashine ya Nusu Kaputi Anaesthetic machine	Ndiyo.....1 Hapana.....2
207	Hemocytometer (for total lymphocyte and full blood counts)	Ndiyo.....1 Hapana.....2
208	Cytoflowmeter (for CD4 counts)	Ndiyo... .....1 Hapana.....2
209	Ambulance or other emergency transportation service	Ndiyo.....1 Hapana.....2
210	Akiba ya Latex gloves Latex gloves	Ndiyo.....1 Hapana.....2
211	Incinerator	Ndiyo.....1 Hapana.....2
212	Jokofu/Friji Refrigerator	Ndiyo.....1 Hapana.....2

Kwa vituo vingenevyo:
For all other health facilities:

Namba	Swali	Jibu
Tunapenda kufahamu kama vifaa vifuatavyo vinapatikana katika kituo hiki na vinafanya kazi.		
201	Blood pressure machine	Ndiyo.....1 Hapana.....2
202	Stethoscope(s)	Ndiyo.....1 Hapana.....2
203	Pima Joto “Clinical thermometer(s)” Clinical thermometer(s)	Ndiyo.....1 Hapana.....2
204	Mizani ya kupimia uzito watoto walio chini ya miaka mitano (<5) Weighing equipment (i.e. Salter scale or similar hanging scale) for under-five-year-olds	Ndiyo.....1 Hapana.....2
205	Mizani ya kupimia uzito wa watu wazima Weighing scale for adults	Ndiyo.....1 Hapana.....2
206	Darubini Microscope	Ndiyo.....1 Hapana.....2
207	Akiba ya Latex gloves Latex gloves in stock	Ndiyo.....1 Hapana.....2
208	Jokofu/Friji Refrigerator	Ndiyo.....1 Hapana.....2
209	Kit ya kuzalishia iliyokamili Complete delivery set (including scissors, tying cords, sutures, forcepts)	Ndiyo.....1 Hapana.....2

210	Fetoscope	Ndiyo……..1
		Hapana……..2
211	Slides for microscopy	Ndiyo……..1
		Hapana……..2

Section 3. Injection and sterilization equipment.
Sehemu ya tatu: Sindano na vifaa vya kutakasia. Sehemu hii ya dodoso inaulizia kuhusu aina kuu za sindano na vifaa vinavyotumika katika kituo.

Angalizo kwa Msaili : Tafadhali onyesha majibu ya msailiwa katika safu ya mwisho yenye rangi ya kijivu.

Namba	Swali	Jibu
Tunapenda kufahamu aina za sindano na vifaa vya kutakasia ikiwa vipo katika kituo hiki. Utaombwa kuchagua aina za sindano zinazotumika mara kwa mara (ukiondoa zile za chanjo). Pia tunapenda kuuliza aina ya vifaa vya kutakasia vinavyotumika mara kwa mara. Mwisho tutaulizia kama “disinfectant” zipo kituoni.		
301	Onyesha aina ya sindano inayotumika kituoni mara kwa mara (sio kwa chanjo) Please indicate which of the following is **the most commonly** used type of needles and syringes for general health services (apart from immunization activities) in this facility:	Disposable……1 Re-usable……2 Auto-destruct……3
302	For how long will the current stock of needles and syringes last?	No stock ……..1 Less than 1 week…2 More than 1 week but less than 1 month……3 At least 1 month…..4

303	Onyesha kifaa cha utakasaji kinachotumika kituoni mara kwa mara Please indicate which of the following is the **most commonly** used method of sterilisation for general health services:	Autoclave……..1 Sterilizers……..2 Pressure pots……...3 Boiling pot……4 Nyinginezo……5 (Elezea): _____ _____
304	Je, Dawa za kuua vimelea vya magonjwa “Disinfectant” (Chlorine, Lysol) zinapatikana kituoni? Is environmental disinfectant (i.e., chlorine, Lysol, or other nationally accepted disinfectant) available in this facility?	Ndiyo……1 Hapana……2

Section 4. Human resources.
Sehemu ya Nne. Rasilimali Watu. Sehemu hi ya dodoso inaulizia rasilimali watu zilizopo kituoni.

Angalizo kwa Msaili: Tafadhali onyesha majibu ya msailiwa safu ya mwisho yenye rangi ya kijivu. Maswali yanahusu kama yanahusu rasilimali watu ipo na idadi ya **waliyopo hapo siku ya usaili.**

Namba	Swali	Jibu
Katika sehemu hii tunapenda kujua idadi ya watumishi wa afya waliopo. Pia tungependa kujua idadi ya watumishi waliopo kazini leo. Ikiwa aina ya watumishi haihusiki katika kituo hiki.		
401	Madaktari na Madaktari Bingwa Medical doctors and specialists:	
	(a) Madaktari na Madaktari bingwa wangapi wanafanya kazi muda wote katika kituo hiki (full time) (a) How many medical doctors and specialists work full time at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Kituo kina Madaktari na Madaktari bingwa wangapi wa muda ? (partime) (b) How many medical doctors and specialists work part time at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(c) Leo kuna Madaktari na Madaktari bingwa wangapi waliopo kazini? (c) How many medical doctors and specialists are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

402	Madaktari Wasaidizi Assistant Medical Officers	
	(a) Kituo kina Madaktari Wasaidizi wangapi? (a) How many assitant medical officers work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Madaktari Wasaidizi wangapi kazini? (b) How many assitant medical officers are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
403	Waganga Wasaidizi, waganga wasaidizi vijijini: Clinical officers, including rural medical aides:	
	(a) Kituo kina Waganga Wasaidizi, Waganga Wasaidizi Vijijni wangapi? (a) How many clinical officers, including rural medical aides work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Waganga Wasaidizi, Waganga Wasaidizi Vijijni wangapi? (b) How many clinical officers, including rural medical aides are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

402	Madaktari Wasaidizi Assistant Medical Officers	
	(a) Kituo kina Madaktari Wasaidizi wangapi? (a) How many assitant medical officers work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Madaktari Wasaidizi wangapi kazini? (b) How many assitant medical officers are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
403	Waganga Wasaidizi, waganga wasaidizi vijijini: Clinical officers, including rural medical aides:	
	(a) Kituo kina Waganga Wasaidizi, Waganga Wasaidizi Vijijni wangapi? (a) How many clinical officers, including rural medical aides work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Waganga Wasaidizi, Waganga Wasaidizi Vijijni wangapi? (b) How many clinical officers, including rural medical aides are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

404	Afisa Muuguzi daraja la 'A" Nurses A (registered nursing officers):	
	(a) Kituo kina Maafisa Wauguzi Daraja 'A" wangapi? (a) How many nurses A work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Maafisa Wauguzi 'A' wangapi kazini? (b) How many nurses A are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
405	Muuguzi Daraja la 'B" Nurses B (registered nurse midwives):	
	(a) Kituo kina Wauguzi Daraja 'B" wangapi? (a) How many nurses B work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Wauguzi Daraja 'B' wangapi kazini? (b) How many nurses B are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

406	Wahudumu wa Afya Medical attendants/hospital ordely:	
	(a) Kituo kina Wahudumu wa Afya wangapi? (a) How many medical attendants/hospital orderlies work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Wahudumu wa Afya wangapi waliopo kazini? (b) How many medical attendants/hospital orderlies are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
407	Fundi Sanifu Maabara: Laboratory technicians/technologists:	
	(a) Kituo kina Mafundi Sanifu wangapi? (a) How many laboratory technicians/technologists work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Mafundi Sanifu wangapi waliopo kazini? (b) How many laboratory technicians/technologists are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

408	Mfamasia Pharmacists:	
	(a) Kituo kina Wafamasia wangapi? (a) How many pharmacists work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Wafamasia wangapi waliopo kazini (b) How many pharmacists are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
409	Fundi sanifu Madawa Pharmaceutical technicians	
	(a) Kituo kina Mafundi Sanifu Madawa wangapi? (a) How many pharmaceutical technicians work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Mafundi Sanifu Madawa wangapi waliopo kazini? (b) How many pharmaceutical technicians are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

410	Madaktari Kinywa na Meno Dental surgeons	
	(a) Kituo kina Madaktari Kinywa na Meno wangapi? (a) How many dental surgeons work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Madaktari Kinywa na Meno wangapi waliopo kazini ? (b) How many dental surgeons are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
411	Waganga Wasaidizi Meno na Daktari Msaidizi Meno Dental assistants and assistant dental officers:	
	(a) Kituo kina Waganga Wasaidizi Meno na Daktari Msaidizi Meno wangapi? (a) How many dental assistants and assistant dental officers work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Waganga Wasaidizi Meno na Daktari Msaidizi Meno wangapi waliopo kazini.? (b) How many dental assistants and assistant dental officers are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

412	Fundi Sanifu kumbukumbu za afya Health recorders:	
	(a) Kituo kina Fundi Sanifu kumbukumbu za afya wangapi? (a) How many health recorders work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Fundi Sanifu kumbukumbu za afya wangapi waliopo kazini? (b) How many health recorders are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
413	Katibu wa Afya Full time or dedicate health secretaries:	
	(a) Kituo kina Makatibu wa Afya wangapi? (a) How many full time or dedicated health secretaries work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) Leo kuna Makatibu wa Afya wangapi waliopo kazini? (b) How many full time or dedicated health secretaries are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

414	Certified/registered HIV counsellors:	
	(a) How many certified/ registered HIV counsellors work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) How many certified/ registered HIV counsellors are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
415	Social workers:	
	(a) How many social workers work at this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) How many social workers are present at this facility today?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
416	Village health workers:	
	(a) How many village health workers are supervised by this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) How many village health workers have you met during the last month to discuss work-related issues?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

417	Traditional Birth Attendants (TBAs)	
	(a) How many TBAs are supervised by this facility?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
	(b) How many TBAs have you met during the last month to discuss work-related issues?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

Section 5. Trained staff.
Sehemu ya Tano. Watumishi waliopata mafunzo. Sehemu hii ya dodoso inaulizia idadi ya watumishi waliopata mafunzo vyuoni kabla ya kuajiriwa au waliopata mafunzo wakiwa kazini kwa huduma maalum.

Angalizo kwa Msaili: Tafadhali onyesha majibu ya msailiwa safu ya mwisho yenye rangi ya kijivu

Namba	Swali	Jibu
Sehemu hii tungependa kujua idadi ya watumishi wangapi wamepata mafunzo vuoni kabla ya kuajiriwa au waliopata mafunzo wakiwa kazini kwa huduma maalum. Na kwa kila huduma maalum Tafadhali onyesha idadi ya watumishi waliopata mafunzo vyuoni kabla ya kuajiriwa katika **kipindi cha miaka miwili iliyopita.**		
501	Matibabu ya Huduma mseto ya magonjwa ya watoto (IMCI) Integrated management of childhood illness (IMCI)	(a) Pre-service ☐☐☐ (b) In service ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
502	Uzazi salama (safe motherhood/Life saving skill) Safe motherhood/life-saving skills	(a) Pre-service ☐☐☐ (b) In service ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

503	Matibabu ya magonjwa nyemelezi yanayoambetana na HIV/AIDS HIV/AIDS opportunistic infection treatment and care	(a) Pre-service ☐☐☐ (b) In service ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
504	Kinga ya maambukizo ya HIV/AIDS kutoka kwa mama kwenda kwa mtoto (PMTCT) Prevention of Mother to Child Transmission (PMTCT) of HIV	(a) Pre-service ☐☐☐ (b) In service ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
505	Ushauri Nasaha kwa HIV/AIDS Counselling for HIV/AIDS	(a) Pre-service ☐☐☐ (b) In service ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
506	DOTS	(a) Pre-service ☐☐☐ (b) In service ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
507	Infection control/ universal precautions for handling blood and other bodily fluids	(a) Pre-service ☐☐☐

		(b) In service □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
508 (a)	Uchunguzi na Tiba ya Malaria kwa Clinicians Diagnosis and treatment of malaria, clinicians	(a) Pre-service □□□ (b) In service □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
508 (b)	Uchunguzi na Tiba ya Malaria kwa Watumishi wa Maabara Diagnosis of malaria, laboratory staff (microscopy)	(a) Pre-service □□□ (b) In service □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

509	Afya ya uzazi kwa vijana wenye umri kati ya miaka 10-18 Angalia: Ni huduma za uzazi wa mpango ikiwa ni pamoja na Kondomu, maradhi ya ngono kwa vijana na ushauri nasaha kwa vijana kwa maradhi ya UKIMWI Adolescent sexual and reproductive health (ASRH) Note: ASHR includes any of the following: (1) provision of contraceptives including condoms to adolescents, (2) STI management in adolescents, (3) HIV counselling and testing for adolescents.	(a) Pre-service □□□ (b) In service □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
510	Menejimenti ya dawa na vifaa vya Afya Drug and supplies management	(a) Pre-service □□□ (b) In service

		□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
511	Mafunzo ya MTUHA MTUHA (HMIS) training	(a) Pre-service □□□ (b) In service □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
512	Menejimenti ya Huduma ya Afya Health services management	(a) Pre-service □□□ (b) In service □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
513	Family planning	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
514	STI diagnosis and treatment	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
515	Diabetes management	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
516	Mental health	□□□

		INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
517	ART patient treatment and monitoring	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

Section 6. Drugs and commodities.
Sehemu ya Sita. Madawa . Sehemu hii ya dodoso inaulizia upatikanaji wa madawa maalum katika kituo. Majibu ya maswali yote ni Ndiyo au Hapana

Angalizo Kwa Msaili: Onyesha majibu ya msailiwa wa safu ya mwisho yenye rangi ya kijivu.

Namba	Swali	Jibu
Sehemu hii tunapenda kujua kama madawa yafuatayo yanapatikana kwa leo		
601	*Antibiotics* za sindano Injectable antibiotics	Ndiyo…….....1 Hapana…….....2
602	*Antibiotics* za kumeza Oral antibiotics	Ndiyo…….....1 Hapana…….....2
603	Vidonge vya Uzazi wa mpango Oral contraceptive pills	Ndiyo…….....1 Hapana…….....2
604	Sindano za Uzazi wa Mpango Injectable contraceptives	Ndiyo…….....1 Hapana…….....2
605	Kondomu za kiume Male condoms	Ndiyo…….....1 Hapana…….....2
606	Kondomu za Kike Female condoms	Ndiyo…….....1 Hapana…….....2
607	Vidoge vya madini ya chuma Iron (e.g. ferrous sulphate) Iron (e.g. ferrous sulphate)	Ndiyo…….....1 Hapana…….....2
608	Vidonge vya Vitamin A Vitamin A capsules	Ndiyo…….....1 Hapana…….....2

609	Chanjo ya Surua Measles vaccine	Ndiyo……..1 Hapana…….2
610	First-line anti-malarial drugs (Example: SP)	Ndiyo……..1 Hapana…….2
611	Second-line anti-malarial drugs **(Example: amodiaquine)**	Ndiyo……..1 Hapana…….2
612	Dawa za Shinikizo la Damum Antihypertensive drugs	Ndiyo……..1 Hapana…….2
613	Magnesium Sulphate for eclampsia treatment	Ndiyo……..1 Hapana……2
614	Ergometrine for post-partum hemorrhage	Ndiyo……..1 Hapana……2
615	Oral rehydration salts (ORS)	Ndiyo……..1 Hapana……2
616	Isoniazide	Ndiyo……..1 Hapana……2
617	Dawa zinginezo za Kifua Kikuu licha ya “isoniazide” TB drugs (apart from isoniazide)	Ndiyo……..1 Hapana…….2
618	Dawa za Ukoma Leprosy drugs	Ndiyo……..1 Hapana……2
619	ART drugs	Ndiyo……..1 Hapana……2
620	Brochures, posters or other materials on safer sex practices Note: We are interested in knowing that these are present and appropriate. By appropriate we mean that the brochures, posters and materials are accessible to people with limited literacy, they have pictures and use words that are widely understood.	Ndiyo……..1 Hapana……2

Section 7. Laboratory tests.
Sehemu ya Saba. Vipimo vya Maabara. Katika sehemu hii ya dodoso tunaulizia upatikanaji wa vipimo maalum katika maabara hapa kiutoni. Tungependa kujua taratibu gani zinazotumika kwa ajili ya vipimo vya Maabara.

Angalizo kwa Msaili : Onyesha majibu ya maswali safu ya mwisho yenye rangi ya kijivu.

Namba	Swali	Jibu
Sehemu hii ya dodoso tungependa kujua vipimo vifuatavyo vinaweza kupatikana hapa kituoni. Kwa kila kipimo onyesha kama Ndiyo au la kinaweza kufanywa kituoni leo. Kama kipimo kinafanywa nje ya kituo na majibu yanapatikana katika siku chache au hakuna huduma. Maana yake sampuli ya kipimo haiwezi kuchukuliwa na mgonjwa hawezi kupewa rufaa kwenda kwenye kituo kingine.		
701	Vipimo vya HIV HIV antibody test	Vipimo vinaweza kufanyika hapa leo ……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Huduma Hakuna……3
702	Haemoglobin	Vipimo vinaweza kufanyika leo……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Huduma Hakuna……3

703	Blood count	Vipimo vinaweza kufanyika leo……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Huduma Hakuna……3
704	Blood glucose level	Vipimo vinaweza kufanyika leo……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Hakuna Huduma ……3
705	Giemsa/Field stain for malaria	Vipimo vinaweza kufanyika leo……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Hakuna Huduma ……3
706	Vipimo vya Kaswende (VDRL/RPR) Syphyllis screen (VDRL/RPR)	Vipimo vinaweza kufanyika leo……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Hakuna Huduma ……3

707	Parasite examination of urine or stool sample	Vipimo vinaweza kufanyika leo……1
		Vipimo vinaweza kufanywa nje ya kituo na majibu kupatikana katika siku chache……2
		Hakuna Huduma ……3

Section 8. Information on interventions available in the facility.
Sehemu ya Nane. Huduma zipatikanazo kwenye kituo. Sehemu hii ya dodoso inaulizia huduma maalum zitolewazo kituoni

Angalizo kwa Msaili : Onyesha majibu ya msailiwa safu ya mwisho yenye rangi ya kijivu.

Namba	Swali	Jibu
Sehemu hii tungependa kujua huduma maalum zitolewazo kituoni. Kwa mwezi uliopita tunamaanisha mwezi kamili uliopita.		
801	Je, upimaji wa virusi ya UKIMWI na ushauri nasaha unapatikana kituoni? Is HIV antibody testing and counselling available in this facility?	Kituo kinapima virusi vya UKIMWI na kutoaji ushauri nasaha.....1 Kituo kinatoa ushauri nasaha tu .....2 Kituo hakipimi virusi vya UKIMWI na wala hakitoi ushauri nasaha.....3 **Kama jibu ni 3 NENDA 804**
802	Ni wateja wangapi waliohudumiwa na kituo kwa ajili ya kupima virusi vya UKIMWI na kupewa ushauri nasaha katika kipindi cha mwezi mmoja uliopita How many HIV antibody testing and counselling clients did the facility see in the previous month?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
803	Ni wateja wangapi waliopima virusi vya UKIMWI na kupata ushauri na kurudi kuchukua majibu ya vipimo vyao mwezi uliiopita. How many HIV antibody testing and counselling clients returned for their results in the previous month?	□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
804	Je, huduma ya akina mama wajawazito imepatikana katika kituo hiki? Are antenatal services provided in this facility?	Ndiyo .....1 Hapana.....2 **Kama jibu ni Hapana NENDA 810**
805	How many antenatal clients were seen in the previous month?	□□□ INGIZA "0" KAMA **hakuna**

Namba	Swali	Jibu
		INGIZA "999" kama **haijulikani**
806	Is syphilis testing provided to pregnant women?	Ndiyo……..1 Hapana……2
807	Je, ushauri nasaha juu ya UKIMWI unatolewa kwa akina mama wajawazito? Is HIV counselling provided to pregnant women?	Ndiyo……..1 Hapana……2
808	Je, akina mama wajawazito wanapimwa virusi vya UKIMWI? Is HIV testing provided to pregnant women?	Ndiyo……..1 Hapana……2
809	Is intermittent preventive therapy (IPT) against malaria provided to pregnant women?	Ndiyo……..1 Hapana …..……2
810	Je, dawa za “Nevirapine” zinatolewa kwa akina mama wajawazito kuzuia maambukizo ya UKIMWI kutoka kwa mama kwenda kwa mtoto? Is nevirapine or AZT provided to prevent mother to child transmission of HIV?	Ndiyo ……..1 Hapana……2 **Kama jibu ni Hapana NENDA 813**
811	Taja idadi ya akina mama wajawazito waliopewa dawa za “Nevirapine” kwa mwezi uliopita How many women received nevirapine or AZT in the previous month?	INGIZA ☐☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

812	Taja idadi ya watoto waliozaliwa waliopewa dawa za “Nevirapine” kwa mwezi uliopita? How many children received nevirapine in the previous month?	INGIZA □□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
813	Je, dawa za kupunguza makali ya UKIMWI (ARV) zinatolewa katika kituo hiki Is ARV therapy offered at this facility?	Ndiyo……..1 Hapana……2 **Kama jibu ni Hapana NENDA 816**
814	Je, ni wagonjwa wangapi walioandikishwa katika mpango wa kutoa dawa za kupunguza makali ya UKIMWI (ARV) katika kituo hiki? How many patients are currently enrolled in the ARV program?	□□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
814a.	Kati ya wagonjwa waliotajwa kutoka kwenye swali 814, ni wangapi walio na umri wa miaka chini ya miaka kumi na tano (15) Of the total number of patients provided in 814, how many of them are children under 15 years of age?	a. □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
814b.	Kati ya hawa,ni waliotajwa 814a ni wangapi wavulana? Of those mentioned in 814a, how many are girls?	b. □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
814c.	Kati ya wagonjwa waliotajwa kutoka kwenye swali 814a ni wasichana ? Of those mentioned in 814a, how many are boys?	C. □□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
814d	Kati ya wagonjwa waliotajwa kutoka kwenye swali 814 ni wanawake wenye umri zaidi ya miaka 15? Of the total number of patients	d. □□□ INGIZA "0" KAMA **hakuna**

	mentioned in 814, how many of them are women over 15 years of age?	INGIZA "999" kama **haijulikani**
814e	Kati ya wagonjwa waliotajwa kutoka kwenye swali 814 ni wanaume wenye umri zaidi ya miaka 15? **Angalizo:** Idadi iliyoandikwa 814a, 814d, 814e iwe sawa na idadi iliyoandikwa 814 Of the total number of patients provided in 814, how many of them are men over 15 years of age? **CHECK: 814a, 814d and 814e should add up to the total number indicated in 814.**	e. ☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
815	Ni wagonjwa wangapi wa UKIMWI walioandikishwa kuchukua ARV mwezi uliopita? How many patients picked up their ARV drugs in the previous month?	☐☐☐☐ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**
816	Je ugonjwa wa TB anaweza kugundulika kwa kupima makohozi kwa kutumia darubini katika kituo hiki? Can TB diagnosis through the collection of a sputum smear and the use of a microscope (smear microscopy) be carried out in this facility?	Ndiyo……..1 Hapana……2
817	Je, kuna rejesta ya wagonjwa wanaohisiwa kuwa na TB? Is a register of suspected TB cases kept at this facility?	Ndiyo……..1 Hapana……2

818	Je, matibabu ya TB yanapatikana katika kituo hiki? Is TB treatment available in this facility?	Ndiyo……..1 Hapana ……2
819	Je DOTS kwa matibabu ya TB inafanyika katika kituo hiki au katika jamii inayokuzunguka. Is direct observation of short course chemotherapy for TB provided in this facility or in the surrounding community?	Ndiyo……..1 Hapana……2
820	Je wagonjwa wa TB wanapimwa virusi vya UKIMWI katika kituo hiki Is HIV antibody testing available in this facility for all TB patients (suspected or confirmed)?	Kituo kinapima virusi vya Ukimwi kwa wagonjwa wote wa TB …….1 Kituo kinatoa rufaa kwa wagonjwa wa TB kwenda kupima virusi vya UKIMWI kwenye kituo kingine ……2 Kituo hakitoi rufaa wala kupima virusi vya UKIMWI ……3
821	Je huduma maalum ya uzazi salama kwa vijana (miaka 10-18) inatolewa katika kituo hiki? Are there any sexual and reproductive health services provided in this facility tailored* specifically to adolescents and young people? *Note: By “tailored” we mean a service provided by a health provider specifically trained to work with adolescent clients; and/or an area designated specifically to receive adolescent clients; and/or a specific time during the day/week designated to receive adolescent clients	Ndiyo, huduma ya uzazi wa mpango pamoja na utoaji wa kondomu……1 Ndiyo, Matibabu ya magonjwa ya ngono ……..2 Ndiyo, Utoaji wa ushauri nasaha na kupima virusi vya UKIMWI ……..3 Hapana ……..4
822	Does this facility provide vouchers for insecticide treated bednets (ITN)?	Ndiyo……..1 Hapana ……2
823	Does this facility provide STI diagnosis and treatment?	Ndiyo ……..1 Hapana……2 **Kama jibu ni NENDA 825**
824	How many patients were seen for STI diagnosis and treatment in the previous month?	□□□□ INGIZA "0" KAMA **hakuna** INGIZA "999" kama **haijulikani**

825	Does your facility have a working relationship with any civil society organization (NGO, CBO, or FBOs) for HIV prevention activities?	Ndiyo……..1 Hapana ……2
826	Does your facility provide home based care services for the chronically ill such as people living with AIDS?	Ndiyo……..1 Hapana ……2
827	Does this facility provide outreach services to the community, for example for immunization, outpatient services or family planning?	Ndiyo……..1 Hapana ……2 **Kama jibu ni Hapana NENDA 829**
828	Did the facility carry out any such outreach services in the previous month?	Ndiyo……..1 Hapana ……2
829	Muda wa kumaliza usaili Interview end time	_____

Angalizo kwa msaili: Tafadhali pitia tena dodoso kuangalia kama kuna maswali ambayo hayajajibiwa.

Hapa Ndiyo mwisho wa dodoso. Nashukuru kwa kutumia muda wako kutoa majibu ya maswali yaliyo ndani ya dodoso.

SCHOOL P-SAM

UPATIKANAJI WA HUDUMA ZA AFYA

DODOSO LA WILAYA

FOR USE IN SCHOOLS. ONE QUESTIONNAIRE SHOULD BE USED *PER* SCHOOL.

Please fill the information below before beginning.

Please write clearly, in ink:

001.	Date (dd/mm/yyyy):	□□/□□/□□□□
002.	District name:	**Circle one:**
		Geita.....1
		Kwimba.....2
		Magu.....3
		Mwanza, Ilemela……..4
		Mwanza, Nyamagana….5
		Misungwi.....6
		Sengerema.....7
		Ukerewe…….....8
003.	Ward name:	_____
004.	Town/Village name:	_____
005.	School/College name:	_____

006.	Ownership:	Please check **one** box below:
	Government (public) school	☐
	Private, for profit school	☐
	Private, not for profit school. This includes mission schools.	☐
007.	School type:	Please check **one** box below.
	Primary	☐
	Secondary	☐
	Technical or post-secondary	☐
	University	☐
008.	Total number of enrolled students:	☐☐☐☐☐
008a.	Total number of girls enrolled	☐☐☐☐
008b.	Total number of boys enrolled **Note to interviewer: Check that 008a and 008b add up to the total indicated in 008.**	☐☐☐☐

009.	**FOR PRIMARY SCHOOLS ONLY (ALL OTHERS SKIP TO 010):** Total number of students registered in standards 5, 6, and 7.	☐☐☐☐☐
009a.	Total enrolled in Standard 5	☐☐☐☐
009b.	Total enrolled in Standard 6	☐☐☐☐
009c.	Total enrolled in Standard 7 **Note to interviewer: Check that 009a through 009c add up to the total indicated in 009.**	☐☐☐☐
010.	Total number of teachers, professors, and lecturers:	☐☐☐☐
010a.	Total number of female teachers, professors, and lecturers:	☐☐☐☐
010b.	Total number of male teachers, professors, and lecturers: **Note: Check that 010a and 010b add up to the total indicated in 010.**	☐☐☐☐
011.	Total number of classrooms	_____
012.	Interviewer name (last, first):	_____
013.	Respondent name (last, first):	_____
014.	Respondent job title:	_____

015.	School telephone, email and fax numbers (including local telephone codes):	Telephone:_____
		Cell phone (staff member, private): _____
		Fax:_____
		Post box number:_____
		Email:_____
016.	School geographic co-ordinates:	Latitude E: _____
		Longitude S:_____

Questionnaire overview:

Section 1: Prevention services

Section 2: Human resources

Section 3: Commodities

Section 4: School health situation

Section 1. Prevention services. This section of the questionnaire focuses on the HIV prevention services available at this school.

Note to interviewers: Please indicate respondent's answers in the grey, rightmost column.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the HIV prevention services available to your students. Please indicate whether or not each of the following is available.		
101	Does your school provide HIV/AIDS prevention programmes*? * These programmes can be independent or integrated into other curricula, such as life skills.	Yes……..1 No……2 **SKIP TO 103**
102	Does the curriculum cover:	**Do not read list, let respondent answer spontaneously, check all that are mentioned**
	Life skills (communication, abstinence, relationships, drug and alcohol abuse, peer pressure, rational decision making, rape and sexual abuse)	Yes……..1 No……2
	Reproductive health (including STI and HIV signs and symptoms)	Yes……..1 No……2
	Counselling and testing	Yes……..1 No……2
	Care for PLWHA	Yes……..1 No……2
	Peer education	Yes……..1 No……2
103	Does your school provide students with information on where they can receive HIV counselling and antibody testing?	Yes……..1 No……2

104	Does your school have on-site peer* educators for HIV prevention? * student to student	Yes……..1 No…….2
105	Does your school have special support programmes for orphans in school?	Yes……..1 No…….2 **SKIP TO 107**
106	How many orphans benefit from this program?	_____
107	Does your school have school clubs that address or are focused on HIV prevention?	Yes……..1 No…….2
108	Does your school have HIV prevention programmes specifically for teachers?	Yes……..1 No…….2
109	Does your school have programmes to involve parents in HIV prevention?	Yes……..1 No…….2
110	Does your school have other HIV prevention related activities (i.e. programmes with the community to reach drop outs)?	Yes……..1 If yes, specify: _____ _____ No…….2
111	Does your school have a school HIV/AIDS committee?	Yes……..1 No…….2 **SKIP TO Section 2. Human resources**
111a.	Has the school HIV/AIDS committee met in the last 3 months?	Yes……..1 No…….2

Section 2. Human resources. This section of the questionnaire asks about the availability of specific human resources.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the availability of specific human resources that contribute to your school's HIV prevention efforts. For each category of human resource we will ask you if they are available, and how many exist.		
201	Are there teachers in your school that have undergone training in HIV prevention*? * Teachers trained in the accepted school curriculum (including Life Skills, Reproductive Health, counselling and testing)	Yes……..1 **IF YES, ENTER THE NUMBER:** ☐☐☐ No…….2
202	Do you have a school nurse or health worker at the school that is trained in HIV prevention*? * Trained in the accepted school curriculum (including Life Skills, Reproductive health, counselling and testing)	Yes……..1 **IF YES, ENTER THE NUMBER:** ☐☐☐ No…….2
203	Female and male guardians that is a teacher who provides **sexual and reproductive health counselling to students**?	Yes……..1 **IF YES, ENTER THE NUMBER:** ☐☐☐ No…….2

204	Special counsellor (matron or a patron), which is a teacher who helps to **counsel students who are going through a difficult period**? **Note:** These persons do not provide **sexual and reproductive health counselling to pupils**	Yes……..1 **IF YES, ENTER THE NUMBER:** ☐☐☐ No…….2
205	HIV peer* educators? * student to student	Yes……..1 **IF YES, ENTER THE NUMBER:** ☐☐☐ No…….2 **SKIP TO SECTION 3: Commodities**
205a	Of the total number of HIV peer educators in 205, how many are female?	☐☐☐
205b	Of the total number of HIV peer educators in 205, how many are male? **Check: 205a and 205b should add up to the total number indicated in 205.**	☐☐☐

Section 3: Commodities. In this section of the questionnaire we are interested in knowing about the prevention resources available to the school.

No.	Question	Answer
Read to the respondent: This section asks about the availability of specific resources for your HIV prevention programmes. These are all "yes/no" questions.		
301	Are peer educator manuals available?	Yes……..1 No……2
302	Do you have any books on reproductive health for the students?	Yes……..1 No……2
303	Do you have HIV and STI prevention materials such as posters and pamphlets available for the students?	Yes……..1 No……2
304	Do you have a working radio that can be used to listen to HIV related programming and announcements?	Yes……..1 No……2
305	Do you have a working video player or projector?	Yes……..1 No……2
306	Do you have a working television or projector screen?	Yes……..1 No……2
307	Do you have videos or films on HIV/AIDS, sexual and reproductive health?	Yes……..1 No……2
308	Do you have other materials that are used in HIV/AIDS, sexual and reproductive health education?	Yes……..1 **Please specify:** _____ _____ _____ _____ No……2
309	Do you have condoms available on-site for students?	Yes……..1 No……2

Section 4: School health situation. This is the last section of the questionnaire, it asks about general health issues and services available in the school.

No.	Question	Answer
Read to the respondent: This final section of the questionnaire asks about general health issues and services available in the school.		
401	What is the **MAIN** source of water for this school?	**Circle one:** Piped water.....1 Water from open well…….2 Water from covered well or borehole…….3 Surface water…….4 Rain water……...5 Tanker truck……6 No water ……7
402	Does this school have sanitary facilities? What state are the facilities in?	Pit latrines, good state ….……1 Pit latrines, poor state…….....2 Bush ……..…….3 Flush toilets, good state .....4 Flush toilets, poor state ……5

403	Are sanitary facilities separate for boys and girls?	Yes……..1 No……2
404	Is there a programme for oral health at this school?	Yes……..1 No……..2 **SKIP TO 406**
405	Has it been active in the last 12 months?	Yes……..1 No…..……..2
406	Is there a programme for eye screening at this school?	Yes……..1 No…..……..2 **SKIP TO 408**
407	Has it been active in the last 12 months?	Yes……..1 No…..……..2
408	Are there basic medical supplies (including sanitary supplies for girls, basic first aid for all students) in the school?	Yes……..1 No…..……..2
409	Is there a programme to screen children for worms or other parasite infections at this school?	Yes……..1 No…..……..2 **SKIP TO 411**
410	Has it been active in the last 12 months?	Yes……..1 No…..……..2
411	Does the school receive/have additional financial resources to support extra curricular activities and required resources?	Yes……..1 No…..……..2

This is the end of the questionnaire. We thank you very much for the time you have taken to answer these questions.

PRIORITY PREVENTION AREA P-SAM

UPATIKANAJI WA HUDUMA ZA AFYA

DODOSO LA WILAYA

FOR USE IN PPAs. ONE QUESTIONNAIRE SHOULD BE USED *PER* PPA.

Please fill the information below before beginning.

Please write clearly, in ink:

001.	Date (dd/mm/yyyy):	□□/□□/□□□□
002.	Interviewer name (last, first):	_____
003.	Respondent name (last, first):	_____
004.	Respondent telephone, email and fax numbers (including local telephone codes):	Telephone:_____
		Cell phone (staff member, private): _____
		Fax:_____
		Work address:_____ _____ _____
		Email:_____
005.	Respondent job title:	_____

Questionnaire overview:

Section 1: Background

Section 2: Prevention and treatment services

Section 3: Human resources

Section 4: PPA GPS coordinates and validation

Section 1. Background. This section of the questionnaire aims to collect background information about the PPA.

Note to interviewers: Please indicate respondent's answers in the grey, rightmost column.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the PPA. Please answer the questions below to the best of your knowledge. We understand that you may not have all of this information, we only		
101.	District where PPA is located:	**Circle one:** Geita.....1 Kwimba.....2 Magu.....3 Mwanza, Ilemela…….4 Mwanza, Nyamagana….5 Misungwi.....6 Sengerema.....7 Ukerewe…….....8
102.	Ward where PPA is located:	_____
103.	Town/Village where PPA is located:	_____
104.	PPA name:	_____
105.	On an average day or night, how many people can be found in the PPA?	☐☐☐☐☐☐

106.	How big is the PPA? **Note: Please get an estimated size for the PPA; is it a few city blocks, a village, the size of a large bar or disco?**	_____ _____
107.	Directions to PPA: **Note: when working with the district key informants you may want to use district or city maps to mark the PPA. Otherwise, please provide enough information here for someone who is not familiar with the district to arrive at the PPA.**	_____ _____ _____ _____
108.	Indicate whether the PPA has any of the following characteristics:	
	Close to a major transportation route or border with another country	Yes……..1 No……2 Don't know…..3
	Suspected or known high HIV, STI, and/or TB prevalence	Yes……..1 No……2 Don't know…..3
	Large transient/migrant population	Yes……..1 No……2 Don't know…..3
	High male to female ratio	Yes……..1 No……2 Don't know…..3
	High level of poverty	Yes……..1 No……2 Don't know…..3

	Known center for sex work	Yes……..1 No……2 Don't know…..3
	Area or site where you can find many people who do not have formal sector work	Yes……..1 No……2 Don't know…..3
	Area or site where you find many out of school youth	Yes……..1 No……2 Don't know…..3

109. **Ask only if the PPA is a geographical area (i.e., a section of a city or town), not a specific site (i.e., a bar or hotel).**

Read to respondent(s): We are interested in knowing about places in the PPA where people go to meet new sexual partners. These could be places such as bars, hotels, certain sections of some streets, or open fields near a school or workplace. I am going to read you a list of the types of places found in other PPAs where people go to meet new sexual partners. For each type of place, please tell us if people go to this type of place within the PPA to meet a new sexual partner. More than one answer is possible. If they any of the places listed below can be found in the PPA, ask how many exist.

Note to interviewer: Read each and indicate the estimated number of each found within the PPA.

Bars, Home Brews, Taverns	☐	Hotels, Guest Houses	☐
Nightclubs/discos	☐	Overnight Truck Stops	☐

	"X-Rated" "Adults-Only" Go-Go Clubs, Massage Parlors, Porno shops	☐	Restaurants, street cafes where people socialize and meet new sexual partners	☐
	Brothels	☐	Bus and train stations	☐
	Worker hostels such as at a mine or construction site	☐	Taxi and minibus stands	☐
	Places where men go to meet other male sexual partners	☐	Streets or Street Corners such as a street where sex workers solicit clients	☐
	Abandoned yards, fields, "bush"	☐	Ports, Harbors, Docks, Fishing Villages	☐
	Parks where people socialize	☐	Beaches	☐
	Open markets	☐	Stores (including convenience and liquor store) where people socialize	☐
	Shopping Centers	☐	Sports venues	☐
	Tourist attractions	☐	Places where people go to use drugs	☐

	Others (please specify): _____ _____ _____ _____	☐

Section 2. Prevention services. This section of the questionnaire focuses on the HIV prevention services available in the PPA. Section 1 should be filled out with the district key informants.

Note to interviewers: Please indicate respondent's answers in the grey, rightmost column.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the HIV prevention services available in the PPA. Please indicate whether or not each of the following is available. These are all "yes/no" questions.		
201	Does the PPA have, or benefit from, community based HIV/AIDS prevention sessions?	Yes……..1 No…….2 **SKIP TO 203** Don't know…..3
202	Has a community based HIV/AIDS prevention session been held within the last 3 months?	Yes……..1 No…….2 Don't know…..3
203	**Ask only if the PPA is a geographical area:** Within the PPA, is there an AIDS committee?	Yes……..1 No…….2 **SKIP TO 205** Don't know…..3
204	Has this committee met within the last 3 months?	Yes……..1 No…….2 Don't know…..3

205	Are there condom outlets in or nearby* the PPA? * within walking distance	Yes……..1 No…….2 Don't know…..3
206	Are condoms easily accessible during the day time from the site or kiosks, shops or guest houses?	Yes……..1 No…….2 Don't know…..3
207	Are condoms easily accessible during the night time from the site or kiosks, shops or guest houses?	Yes……..1 No…….2 Don't know…..3
208	Are there VCT sites in or near* the PPA? * within walking distance	Yes……..1 No…….2 Don't know…..3
209	Are there STI services available for youth in or near* the PPA? * within walking distance	Yes……..1 No…….2 Don't know…..3

Read to respondent(s): Think about the area we have been discussing and the HIV prevention efforts that are present. We want to know about the presence of prevention posters and other media aimed at reducing risk.		
210	Are HIV prevention posters/bill boards common within the PPA?	Yes……..1 No…….2 **SKIP TO 212** Don't know…..3
211	Are these posters/billboards appropriate*? * By appropriate we mean that they use little or widely understood wording; images give a clear message that cannot be misunderstood.	Yes……..1 No…….2 Don't know…..3
212	Are there other posters visible that address VCT?	Yes……..1 No…….2 Don't know…..3
213	Are there other posters visible that address STIs or family planning?	Yes……..1 No…….2 Don't know…..3
214	Has there been a condom social marketing program in the PPA anytime during the last 3 months?	Yes……..1 No…….2 Don't know…..3

215	Has there been a "know your HIV status campaign*" in the PPA anytime during the last 3 months? * Social marketing programmes aimed at encouraging people to know their HIV sero-status	Yes……..1 No…….2 Don't know…..3
216	Have there been any HIV/AIDS television or radio shows (i.e., soap operas), videos, or movies shown in the PPA anytime during the last 3 months?	Yes……..1 No…….2 Don't know…..3
217	Have there been any special events* anytime in the last 3 months that focus or address issues related to HIV prevention and care? * These can be concerts, plays, or other activity that either focuses on HIV prevention or that allowed HIV prevention messages to be widely displayed.	Yes……..1 No…….2 Don't know…..3
218	Have there been any other HIV-related activities in the PPA that you can recall anytime during the last 3 months?	Yes……..1 **If yes, please specify:** _____ _____ _____ _____ _____ No…….2 Don't know…..3

Section 3. Human resources. This section of the questionnaire asks about the availability of specific human resources.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the availability of specific human resources that contribute to the PPA's HIV prevention efforts. For each category of human resource we will ask you if they are available, and how many exist.		
301	Are there peer educators in the PPA?	Yes……...1 **IF YES, ENTER THE TOTAL NUMBER:** ☐☐☐
		No……2 **End questionnaire.**
302	Of the number indicated above, how many are:	
	a. Female	a. ☐☐☐
	b. Male **Check: 302a and 302b should add up to the total number indicated in 301.**	b. ☐☐☐

This is the end of the questionnaire. We thank you very much for the time you have taken to answer these questions.

Section 4. PPA GPS coordinates and validation. This part of the questionnaire is completed by the field team. It will be used to collect the GPS coordinates of the PPA as well as to verify some of the information collected from the district key informant.

No.	Question	Answer
401.	Date of visit (dd/mm/yyyy):	□□/□□/□□□□
402.	Field worker name (last, first):	_____ _____
403.	PPA name: **Note to interviewer: this should be the same name identified in Section 1: Background.**	_____
404.	PPA geographic co-ordinates*: * For PPAs that are one location or venue, take the GPS coordinates of the place. For PPAs that are a larger geographical area (i.e., a few city blocks, a neighborhood in a city or town) walk to the center of the PPA and take the GPS coordinates.	Latitude S: _____ Longitude E:_____

Note to field team: As you walk through the PPA to get the GPS coordinates, look around and try to validate some of the information that was given to you by the district key informants. You do not have to interview anyone, nor go out of your way.

No.	Question	Answer
304.	Are any HIV prevention posters/billboards visible?	Yes……..1 No…….2 **Skip to 306**
305.	Are these posters/billboards appropriate*? * By appropriate we mean that they use little or widely understood wording; images give a clear message that cannot be misunderstood.	Yes……..1 No…….2

306	Are there other posters visible that address VCT?	Yes……..1 No…….2
307	Are there other posters visible that address STIs or family planning?	Yes……..1 No…….2
308.	Do you see any places where you could buy condoms? You may need to enter a market, shop, or bar to see if condoms are for sale.	Yes……..1 No…….2
309	Do you see any places where you could get free condoms? You may need to enter a guest house to see if condoms are being given away.	Yes……..1 No…….2

WORK PLACE P-SAM

UPATIKANAJI WA HUDUMA ZA AFYA

DODOSO LA WILAYA

FOR USE IN WORKPLACES. ONE QUESTIONNAIRE SHOULD BE USED *PER* WORKPLACE.

Please fill the information below before beginning.

Please write clearly, in ink:

001.	Date (dd/mm/yyyy):	☐☐/☐☐/☐☐☐☐
002.	District name	**Circle one:**
		Geita.....1
		Kwimba.....2
		Magu.....3
		Mwanza, Ilemela……..4
		Mwanza, Nyamagana….5
		Misungwi.....6
		Sengerema.....7
		Ukerewe…….....8
003.	Ward name:	_____
004.	Town/Village name:	_____
005.	Workplace name:	_____
006.	Ownership:	Please check **one** box below:
	Government (public)	☐
	Private, for profit	☐
	Private, not for profit	☐

007.	Total number of employees	_____
007a.	Of the total number provided in 007, how many are male?	_____
007b.	Of the total number provided in 007, how many are female? **Check: 007a and 007b should add up to the total number indicated in 007.**	_____
008.	Interviewer name (last, first):	_____
009.	Respondent name (last, first):	_____
010.	Respondent job title:	_____
011.	Workplace telephone, email and fax numbers (including local telephone codes):	Telephone:_____
		Cell phone (staff member, private): _____
		Fax:_____
		Workplace address:_____ _____
		Email:_____
012.	Workplace geographic co-ordinates:	Latitude S: _____
		Longitude E:_____

Questionnaire overview:

Section 1: Prevention and treatment services

Section 2: Human resources

Section 3: Drugs and commodities

Section 1. Prevention services. This section of the questionnaire focuses on the HIV prevention services available in this workplace.

Note to interviewers: Please indicate respondent's answers in the grey, rightmost column.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the HIV prevention services available to employees. Please indicate whether or not each of the following is available. These are all "yes/no" questions. By **previous month** we mean the last completed calendar month.		
101	Does the workplace have an HIV/AIDS policy?	Yes……..1
		No…….2
102	Are employees required to take an HIV antibody test prior to employment?	Yes……..1
		No…….2
103	Does the workplace provide HIV/AIDS prevention programmes to employees?	Yes……..1
		No…….2 **SKIP TO 104**
103a	Has the workplace had a prevention programme within the last 3 months?	Yes……..1
		No…….2
104	Does the workplace provide employees with information on where they can receive HIV counselling and antibody testing?	Yes……..1
		No…….2

105	Does the workplace provide on-site or nearby peer education on HIV prevention?	Yes……..1 **ENTER NUMBER OF PEER EDUCATORS:** □□□ ENTER "0" if **none**. ENTER "999" if **don't know**.
		No……2 **SKIP TO 106**
105a	How many peer educators have received formal training in HIV prevention?	**ENTER THE NUMBER TRAINED:** □□□ ENTER "0" if **none**. ENTER "999" if **don't know**.
106	Is there a workplace sponsored clinic on-site or nearby for employees?	Yes……..1
		No……2 **SKIP TO 112**
107	Does the clinic provide family planning services to employees?	Yes……..1
		No……2
108	Does the clinic provide HIV counselling and antibody testing to employees?	Yes……..1
		No……2

109	Does the clinic provide antiretrovirals for HIV/AIDS treatment to employees?	Yes……..1 **IF YES, ENTER THE NUMBER ON TREATMENT:** ☐☐☐ ENTER "0" if **none**. ENTER "999" if **don't know**. No…….2
110	Does the clinic provide treatment* of opportunistic infections to employees? * Such treatment can include acyclovir for herpes infection and antibiotics for bacterial infections	Yes……..1 **IF YES, ENTER THE NUMBER OF EMPLOYEES THAT RECEIVED TREATMENT IN THE PREVIOUS MONTH** ☐☐☐ ENTER "0" if **none**. ENTER "999" if **don't know**. No…….2
111	Does the clinic provide STI treatment to employees?	Yes……..1 **IF YES, ENTER THE NUMBER OF EMPLOYEES THAT RECEIVED TREATMENT IN THE PREVIOUS MONTH** ☐☐☐ ENTER "0" if **none**. ENTER "999" if **don't know**. No…….2

Does the workplace support or provide:		
112	Any outreach services for employees and the community?	Yes……..1 No…….2
113	Employee relatives with additional financial, physical, or material support to cover costs related to prolonged illness and death?	Yes……..1 No…….2
114	Referral services to clinics where employees can receive care for STIs including HIV/AIDS?	Yes……..1 No…….2
115	Health care insurance for employees?	Yes……..1 No…….2 **SKIP TO Section 2. Human resources**
Does the workplace health insurance cover:		
116	family planning services	Yes……..1 No…….2
117	HIV counselling and antibody testing	Yes……..1 No…….2
118	antiretrovirals for HIV/AIDS treatment	Yes……..1 No…….2
119	treatment* of opportunistic infections * Such treatment can include acyclovir for herpes infection and antibiotics for bacterial infections	Yes……..1 No…….2

120	STI treatment	Yes……..1
		No……2

Section 2. Human resources. This section of the questionnaire asks about the availability of specific human resources.

No.	Question	Answer
Read to the respondent: We are interested in knowing about the availability of specific human resources that contribute to your workplace's HIV prevention efforts. For each category of human resource we will ask you if they are available, and how many exist.		
201	Are there medical personnel in the workplace that can provide HIV and STI prevention and treatment services?	Yes……..1 **IF YES, ENTER THE TOTAL NUMBER:** ☐☐☐
		No……2 **SKIP TO 206**
202	Of the number indicated above, how many are:	
	a. Medical doctors or physicians	a. ☐☐☐
	b. Assistant medical officers	b. ☐☐☐
	c. Clinical officers	
	d. Nurses	c. ☐☐☐
	e. Other **Check: 202a through 202e should add up to the total number indicated in 201.**	d. ☐☐☐
203	Of the total number of medical personnel in the workplace, how many are trained in the syndromic management/treatment of STIs?	☐☐☐ ENTER "0" if **none**. ENTER "999" if **don't know**.

204	Of the total number of medical personnel in the workplace, how many are trained in HIV prevention*? * This includes HIV and STI prevention education, counselling, condom promotion, provision of or referral to antibody testing and STI treatment services	□□□ ENTER "0" if **none**. ENTER "999" if **don't know**.
205	Of the total number of medical personnel in the workplace, how many are trained in treatment of opportunistic infections?	□□□ ENTER "0" if **none**. ENTER "999" if **don't know**.
206	Does your workplace have any HIV counsellors?	Yes……..1 **IF YES, ENTER THE NUMBER:** □□□
		No……2 **SKIP TO Section 3: Commodities**
207	How many of the counsellors have received formal training in HIV counselling?	□□□ ENTER "0" if **none**. ENTER "999" if **don't know**.

Section 3: Commodities. This is the last section of the questionnaire. Here we are interested in knowing about the prevention resources available in the workplace.

No.	Question	Answer
Read to the respondent: This final section asks about the availability of specific resources for HIV prevention programmes. These are all "yes/no" questions.		
301	Do you have HIV and STI prevention manuals, pamphlets, and/or leaflets available for employees?	Yes……..1 No……2
302	Do you have HIV and STI prevention materials such as posters hanging in the workplace?	Yes……..1 No……2
303	Do you have condoms available on-site for employees?	Yes……..1 No……2
304	Do you have drugs such as antibiotics in stock for the treatment of opportunistic infections and STIs available on-site or in the workplace's medical clinic?	Yes……..1 No……2
305	Do you have antiretroviral (ARVs) in stock available on-site or in the workplace's medical clinic?	Yes……..1 No……2

This is the end of the questionnaire. We thank you very much for the time you have taken to answer these questions.