

LESSON 13

HEALTH INSTITUTIONS AND SERVICES

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Hospitals
Clinics, Health
Centers, Drug
dispensing
Centers



Doctors, Health
Officers, Nurses,
Pharmacists,
Sanitarians, Health
Assistants



Health
Institutions
and
Services

Health Institutions and Services

The low life expectancy in Ethiopia is the result of poor health, especially in infancy and childhood. Better health is a key to individual happiness and a country's development. This is but just a dream, however, for the typical Ethiopian. He/she suffers multiple illnesses, mainly of infectious causes, and is burdened by debilitating parasitic infections most of his/her life. Progress and development are impossible in this context.

Many factors influence health status and a country's ability to provide quality health services for its people. Ministries of health are important actors, but so are other government departments, donor organizations, civil society groups and communities themselves. For example: investments in roads can improve access to health services; inflation targets can constrain health spending; and civil service reform can create opportunities - or limits - to hiring more health workers. [1]

The modern Ethiopian health system has a relatively short history. Moreover, it has been in constant change reflecting progress in the socioeconomic and political changes that took place during the last century particularly in the last two decades, in response to new health reform programs and policies launched locally to coincide with worldwide initiatives on health sector reforms. [2]

With a percapita GNP of \$USD 100.0 per year Ethiopia remains an underdeveloped country with weak health care systems and related infrastructure. Reproductive health is not well developed with attendant urban-rural disparities. Regional disparities in access to other health services and outcomes are also notable. Other noteworthy facts about health care in Ethiopia include the following [3]:

- The government is the main health provider and has a stated goal of achieving universal primary care by the year 2009 through its Health Extension Programs (HEP), but there is a nascent system of private care currently available with restricted access to those with limited financial resources.
- Roughly 80 percent of illnesses are preventable communicable diseases and nutritional diseases both of whom are associated with low economic development;

- Maternal and child health care, like most other aspects of health in Ethiopia, are not well developed;
- There are significant regional disparities in access to services and in health outcomes. For example, vaccination coverage is three times as high in urban areas than rural.
- Roads are underdeveloped, and transportation problems are severe, especially during the rainy season.
- The diversity of climate, terrain, and socio-economic environments are amongst the regional factors impacting health conditions and outcomes
- Inadequate and substandard health coverage is of particular concern in rural Ethiopia, where access to care in the form of modern health institution is limited.
- Almost all births (94 %) take place at home. The majority of (61 %) are assisted by a relative or some other untrained person; 5% are delivered without any assistance at all. As a result, one in fourteen women faces the risk of death during pregnancy or childbirth
- Less than a third of mothers receive prenatal care from a trained doctor, nurse or midwife.
- One in every 13 baby dies before his/her first birthday, and one in 8 dies before age five
- Only 15% of currently married women are using family planning services, with urban women four times as likely as their rural counterparts to use contraceptives.
- Nationally HIV infection and prevalence is estimated at 1.4% (of adults aged 15 – 49 in 2005), or about 1.2 million cases. Prevalence is much higher in urban areas (6%) than rural (1%), and twice as high among women, than men.
- Shortages of trained health professionals, inadequate provision of health supplies, and absence of a modern health information and administration systems as well as vital statistics, are hampering efforts to expand health care.

History of Health Care in Ethiopia

The Ministry of Health's (MOH) historical account and timeline of health care in Ethiopia reads as follows [4]:

- The first modern government-run hospital was built by Emperor Menelik II in 1906 in Addis Ababa with only 30 beds and was named Menelik II hospital.
- An American Christian missionary – Dr. Thomas Lambie – raised enough funds to build the second hospital with 70 beds in the Gulele area of the capital in 1922. The staff included four doctors and five nurses. The hospital underwent several transformations in the coming years and became a central laboratory research institute (Pasteur) in 1964. It finally merged with the country's nutrition institute to become the Ethiopian Health and Nutrition Research Institute (ENHRI).

- More hospitals were in existence at the time of the founding of the Ethiopian Ministry of Health in 1948. The Ministry soon took charge of the country's health affairs and health institutions most of them run by religious missions.
- The Gondar Public Health College and Training Center was established in 1952 G.C with the goal to train Health Officers, Community Nurses, and Sanitarians.
- The first Nursing School came to Addis Ababa having been built by the Red Cross Society in 1950.
- The Malaria Eradication Project was launched in 1959 followed by others such as TB Control Project, a Leprosy Control Project, the Ethiopian Nutrition Institute, and the Smallpox Eradication Service. Some of these projects are still in existence.
- In recent years the Ministry of Health has been striving to integrate traditional medicine into the general network of health services, particularly in view of the skills possessed by certain healers: bone-setters (wogeshas), herbalist's (kitel betash), traditional birth attendants, and equally importantly "spiritual healers".
- Currently, there are 131 hospitals with 7845 beds, 3231 clinics, and 723 health stations. Half of the hospitals and two-thirds of existing clinics are run by entities other than the Ministry of Health.

Health Policies, Plans, and Strategies

The current health policy has been in existence since 1993. "It emphasizes the importance of achieving access to a basic package of quality primary health care services by all segments of the population, using the decentralized state of governance. The health policy stipulates that the health services should include preventive, promotive, and curative components" [5].

The current health policy seeks to promote access to care "...via a centralized system of governance". It starts with "... a primary health care unit (PHCU), comprising one health center and five satellite health posts, and then the district hospital, zonal hospital and specialized referral hospital". This plan envisages that "each PHC-unit [will] serve 25,000 people, while each district and zonal hospital is expected to serve 250,000 people respectively" [2].

A twenty-year health sector development strategy has been worked out. This is being implemented through a sequence of 5-year plans. "The implementation of the first health sector development program (HSDP) was launched in 1997, and now the second HSDP is under way. The main thrust of the HSDP implementation is based on sector-wide approach, encompassing the following eight components" [5]:

- ◆ Service delivery and quality of care
- ◆ Health facility rehabilitation and expansion

- ◆ Human resource development
- ◆ Pharmaceutical services
- ◆ Information, education and communication
- ◆ Health sector management and management of information systems
- ◆ Monitoring and evaluation
- ◆ Health care financing

“The HSDP has introduced a **four-tier** health service system which comprises: a primary health care unit, (a network of a health center and five health posts), the hospital, regional hospital and specialized referral hospital. A health post is now being staffed by two health extension workers. These new cadres are trained for one year and their training emphasizes disease prevention measures with focus on the following programs:

A health center is at the highest level of a primary health care unit. It includes services such as in-patient and out-patient services including surgery, and with laboratory services. A health station used to give services that a health center does, but at a smaller scale. Health Station is now being phased out. According to the new health sector development program (HSDP), a primary health care unit comprises of 5 health posts and a health center serving as a referral point. Therefore, when the HSDP is fully implemented, a health center will serve 25,000 people. The aspect of health management and support within the health system is operated in accordance with the decentralized administrative structures. At present, the decentralization process has expanded to district level and has devolved primary responsibility for service delivery and management from regional health bureaus to district health offices, enabling them to management and coordination primary health care delivery in the their respective areas. [5]

Government health expenditure has increased substantially. “Between 1986 and 1996, government financing grew from 23% to 43% of total health care financing in Ethiopia. By 2000, public health expenditure represented 6.2% of the total public budget, and 1.8% of GDP.” [2]. Still, the percapita expenditure of 1\$USD is extremely low even by the standard of Sub-Saharan African (14\$USD). It is estimated that less than two-thirds of the population has access to health services in Ethiopia. [2]

The role of non-governmental organizations (NGO’s) has also been expanding. “In 1986 NGOs operated about 120 health facilities and in 2002, they had about 377 health facilities”. “It is estimated that these health facilities provide about 8% of the total health service coverage in the country [and] serve a total population of about 5 million...” [2]

Distribution of Health Services and Personnel

Hospitals

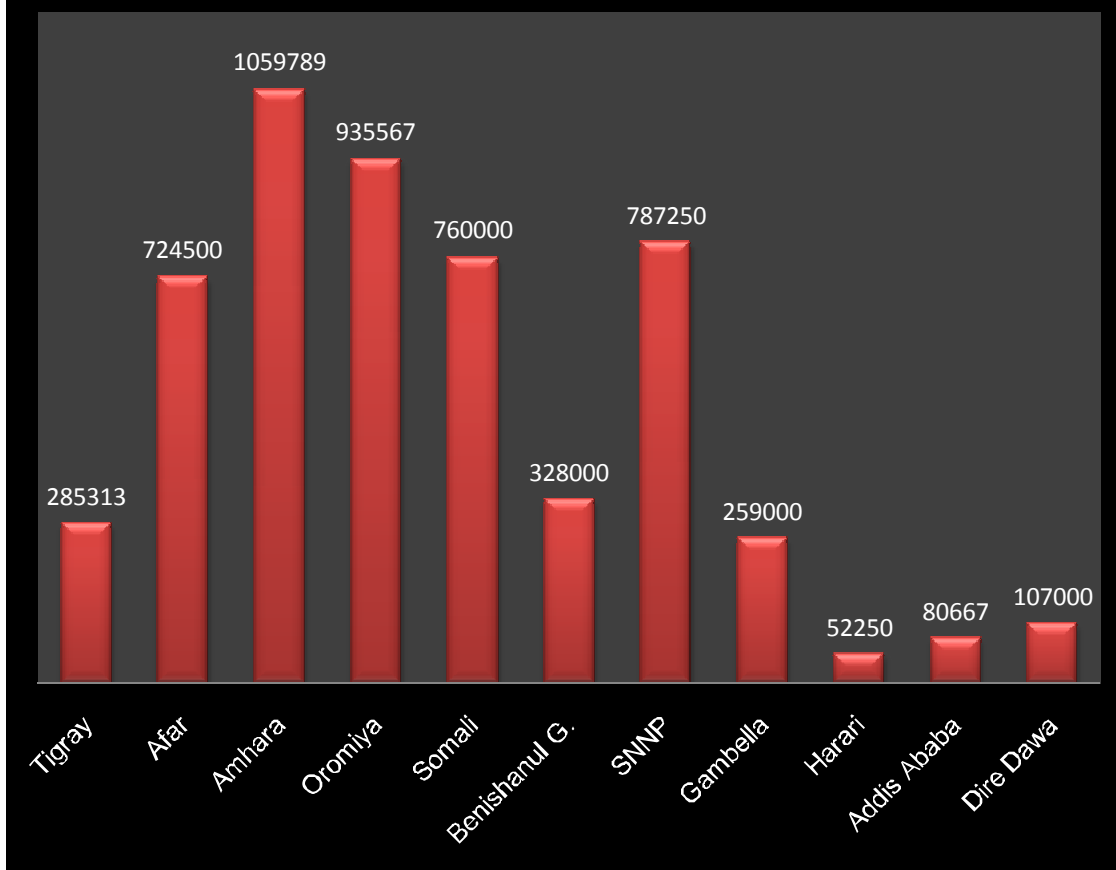
Expectedly the number of hospitals varies from region to region in response, partly, to differences in population sizes (Table 12.1). The most populous region, Oromiya has 30 hospitals. The other two predominantly rural regions – Amhara and SNNP have 19 and 20 respectively with Tigray trailing in fourth place with 16 hospitals. The position of Tigray is misleading, however. When ranked in terms of the hospital-population ratio, Tigray stands in first place as a region with the least population-hospital ratio when compared to the three most populous regions – Oromiya, Amhara, and SNNP. Figure 12.1 reveals that Tigray’s population-hospital ratio (285313 people per hospital) is about half the national average of 553,990 people per hospital, less than half that of Afar, Somali, and SNNP, and only a third of the ratio for Oromiya, and much less than a third of the ratio in the Amhara region. The latter has four and a half times as many people but only 20 percent more hospitals. It is clear that government action to expand rural developments in health care access and delivery favored Tigray by a significant margin. It is also clear from Fig. 13.1 that the predominantly urban regions of Addis Ababa, Dire Dawa, and Harari are doing quite well with a population-hospital ratio of 107,000 or less. Even though Gambella has only one hospital and Benishangul-Gumuz two, the population-hospital ratio remains low owing to the low population size in these predominantly rural regions.

Table 13.1 The Total Number of Hospitals Run by the Ministry of Health and Private Entities by Region (2006/07)

Tigray	16
Afar	2
Amhara	19
Oromiya	30
Somali	6
Benishanul G.	2
SNNP	20
Gambella	1
Harari	4
Addis Ababa	39
Dire Dawa	4

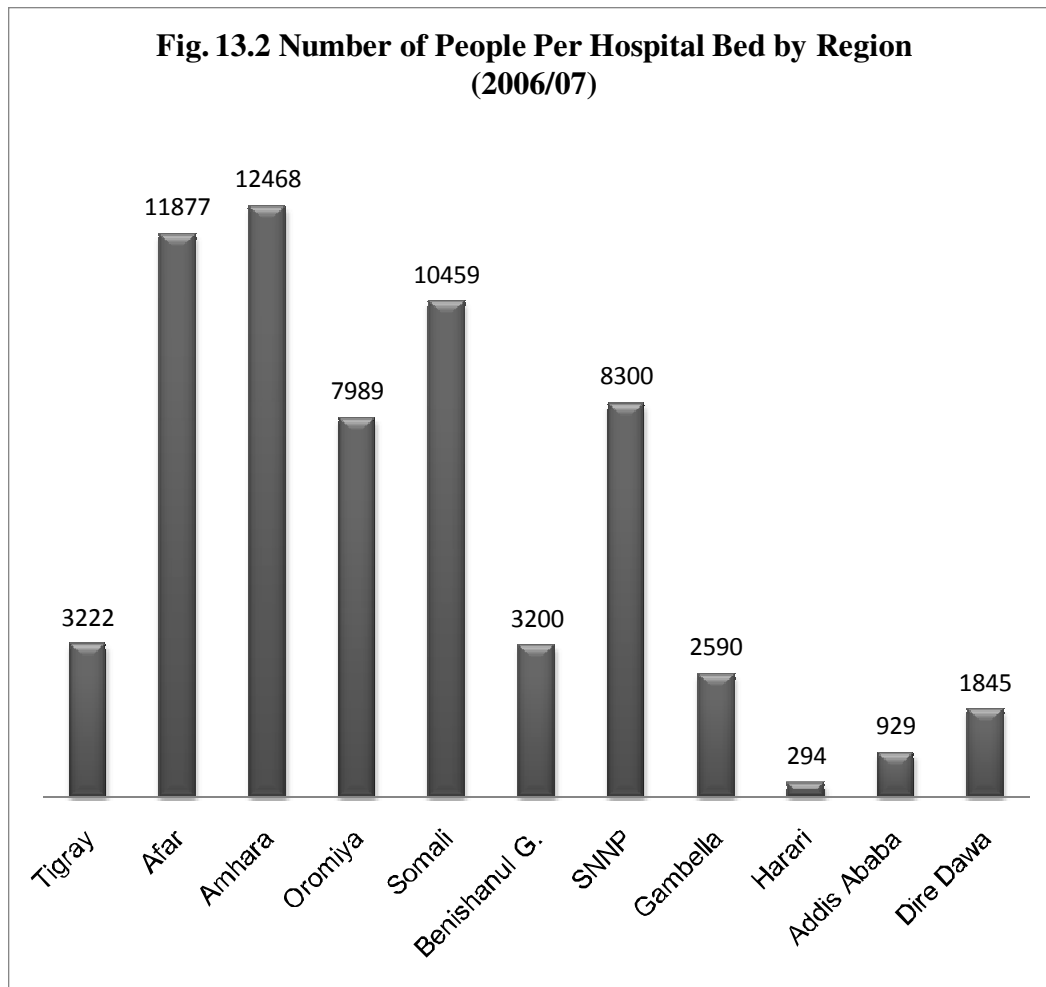
Source: [6]

Fig. 13.1 Population-Hospital Ratio of Regions (2006/2007)



Source: [6]

The health care advantage for Tigray (in comparison with the other predominantly rural regions) is more evident when the population-hospital bed ratio is considered (Fig. 13. 2). The national average is 5810 people per hospital bed.



Source: [6]

Tigray has a third of the population-hospital bed ratios of Amhara and Afar, and less than half that of Oromia, Somali, and SNNPR. It also favorably compares with the smaller regions of Benishangul Gumuz and Gambella.

Health Personnel

Table 13.2 is derived from a 2006/07 report on health by the Central Statistical Office (CSA). The most startling finding in this report is that a country of nearly 80 million people has less than one thousand medical doctors. The current national ratio is 1:81398 (one Ethiopian medical doctor serves an average of 81,398 people). Brain-drain has been identified as the main culprit, as locally trained doctors leave the country seeking better opportunities elsewhere, and those sent

abroad for training fail to return. An estimate for the 1984-1994 period shows that 43 percent of doctors trained abroad, and 53-56 percent of engineers obtaining their degrees in foreign university did not return. [7] It is feared that the situation has worsened since.

“The number of staff that left each of the Departments in the Faculty of Medicine since 1980 has now reached alarming proportions ...with some departments apparently more affected than others. This loss, coupled with a similar or even greater loss in the other medical schools (e.g. staff members lost from Gonder College of Medical Science in 1998-2000) has immensely compromised the teaching and research activities in the health professions. To overcome scarcity of staff many departments have been forced to modify their instructional strategies including reduction in laboratory work and bedside teaching. In the clinical departments, there has been heavy dependence on residents to teach undergraduate students because of shortage of senior staff. This change has apparently compromised the quality of training and in effect, the quality of graduates as reflected by their scientific background and clerical experience” [7]

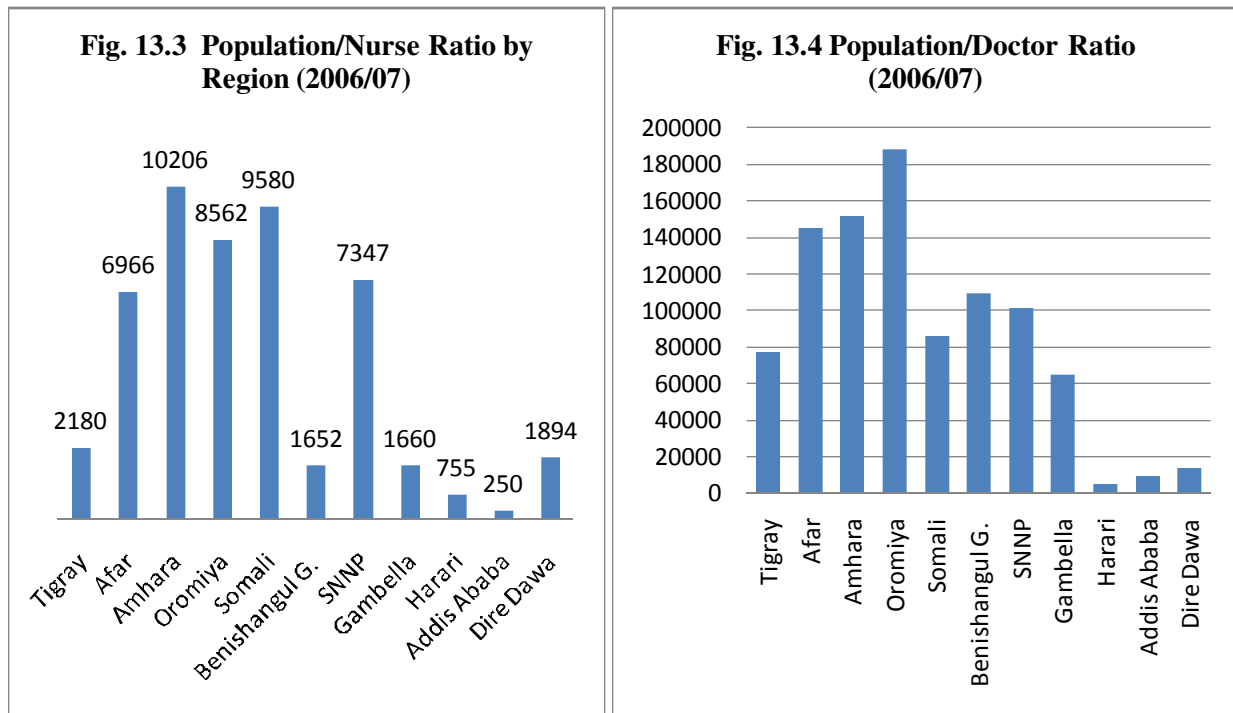
Table 13.2 Number of Health Personnel by Region (2006/07)

Region	Health		
	Doctors	Officers	Nurses
Tigray	59	163	2094
Afar	10	16	208
Amhara	133	273	1973
Oromiya	149	522	3278
Somali	53	23	476
Benishangul G.	6	18	397
SNNP	155	150	2143
Gambella	4	10	156
Harari	41	11	277
Addis Ababa	332	25	12583
Dire Dawa	31	8	226
Total	973	1219	23811

Source: [6]

Figures 13.3 and 13.4 reveal the continuing health care advantage for Tigray compared to the other regional states with predominantly rural populations. Its population nurse ratio is less than a third of that of Afar, less than a fourth of that in Amhara, a fourth of the ratio in Oromia, and less than a third of that in SNNP. The Tigray region also has the lowest doctor-population ratio (73,373) compared to the other major regional states including Oromia (188,369), Amhara (151,398), Benishangul Gumuz (109,333), SNNP (101,581), and Somali (86,038). Its ratio is roughly half that of Amhara and less than half of Oromiya’s population per doctor ratio. Gambella’s low population size ensures a relatively low population-doctor ratio even though the CSA report shows only four doctors in residence there. Finally, a cursory glance at both figures reveals the significant gap in level of care and access to doctors and nurses and the advantages enjoyed by urban residents as compared to rural residents of the countryside. This has been noted

by other researchers who identified one of the barriers to equitable distribution of care as “.....urban bias in the distribution of health facilities even though 85% of the country’s population resides in rural areas”. [2]. Urban residents also enjoy easy access to care due to the compact nature and high population densities of cities and towns as well as transport networks served by taxis, buses, and private automobiles. This is not possible in the countryside. As a result, the national average of visits to health services per capita was estimated at 0.25 per year in 1996/97. [2]



Source: [6]

It is obvious that some patients access care in regions other than their region of birth or residence. It is also obvious that the number of such well-to-do patients capable of travelling long distances to seek better care is in the thousands, at best, and unlikely to distort or invalidate the narratives presented in Figures 13.3 and 13.4.

Drug Costs and Outlets

A year 2004 study on the price of medicines in Ethiopia jointly conducted by the Pharmaceuticals Administration and Supplies Service (PASS) of the Federal Ministry of Health and the World Health Organization (WHO) covered four regions - Amhara, Oromia, SNNPR, and Tigray - as well as in the capital city, Addis Ababa. The study focused on procurement and price, availability, and affordability. “Affordability of the cost of a single course of therapy for 6 disease situations was measured by comparing it with the daily wage of the lowest paid government worker” [8]. The lowest paid government worker earns an average of Birr 200, or Birr 6.7 per day. Among the study conclusions and literature review reports were the following [8]:

- There were 37 wholesalers, 54 importers and 13 local manufacturers in 2003.
- A combination of public sector, private sector, city councils and the Ethiopian Red Cross Society ((ERCS) carried out the drug retail activity. There were 375 drug shops (run by pharmacy diploma graduates) 275 pharmacies (run by pharmacy degree graduates), and 1783 rural drug vendors (run by nurses or health assistants or pharmacy technicians) in 2003/04. Each health care facility has its own medicine retail outlet.
- The total government drug budget was about 12.1 million USD in 2001 or approximately 19% of the recurrent government health budget, or 0.18 USD per capita. The total annual drug expenditure in the same year was estimated at 30 million USD of which close to half - 12.3 million USD - was donated.
- Some drugs are provided free of charge including Anti-TB/Leprosy medicines as well as family planning medicines in public health facilities. Additionally, poor patients who can submit certificate of exemption from their local administrations are provided with medicines free of charge in public health. There is also a nascent health insurance program for some employees of enrolled companies to cover their medicine costs.
- No wholesale or retail price mark-ups ceiling exist in the country.
- Based on the investigation of the availability of 10 commonly used medicines it was concluded that the availability of all the 10 medicines in public health facilities was inadequate as it fell below 75 per cent.
- Availability of medicines in public health facilities was lower than in the private pharmacies

- Comparison with prices in other African countries shows that Ethiopia has relatively lower patient prices, procurement prices.
- The majority of Ethiopians find the costs of treatment of common diseases too high and above their means. For example, in order to purchase a course of brand-name Amoxicillin from private pharmacies for pneumonia treatment, a government worker with the lowest pay would have to work for 4.10 days. To purchase the lowest price generic equivalent from public health facilities he/she would need to work for 0.70 days.
- “On the other hand, suppose we have an asthmatic child with Acute Respiratory Infection (ARI), an adult with diabetes mellitus and another adult with hypertension in a family. The breadwinner, who is a lowest paid government worker, will have to work for 3 days to purchase the necessary lowest price generic (LPG) versions from public health facilities”.
- This is far beyond reach of such a worker because “...the portion of monthly income of the lowest paid government employee that can be spent on medicines alone is much less than his/her one day’s wage”.
- Treatment of diseases in Ethiopia requires more number of days’ wage than in the other African countries. In other words, the cost of treating diseases in Ethiopia is less affordable to low income people than in the rest of Africa.
- In general, prices of medicines were highest in private pharmacies and lowest in public health facilities.
- Anti Retroviral therapies (ARTs) were made available only by city councils and in pharmacies owned by the Ethiopian Red Cross Society (ERCS) due to government policy. As a result, the availability of ARTs was not included in the assessment of the overall availability of drugs.

The World Bank’s report [9] on health and poverty in Ethiopia provides the following additional facts regarding health care access, costs, and availability:

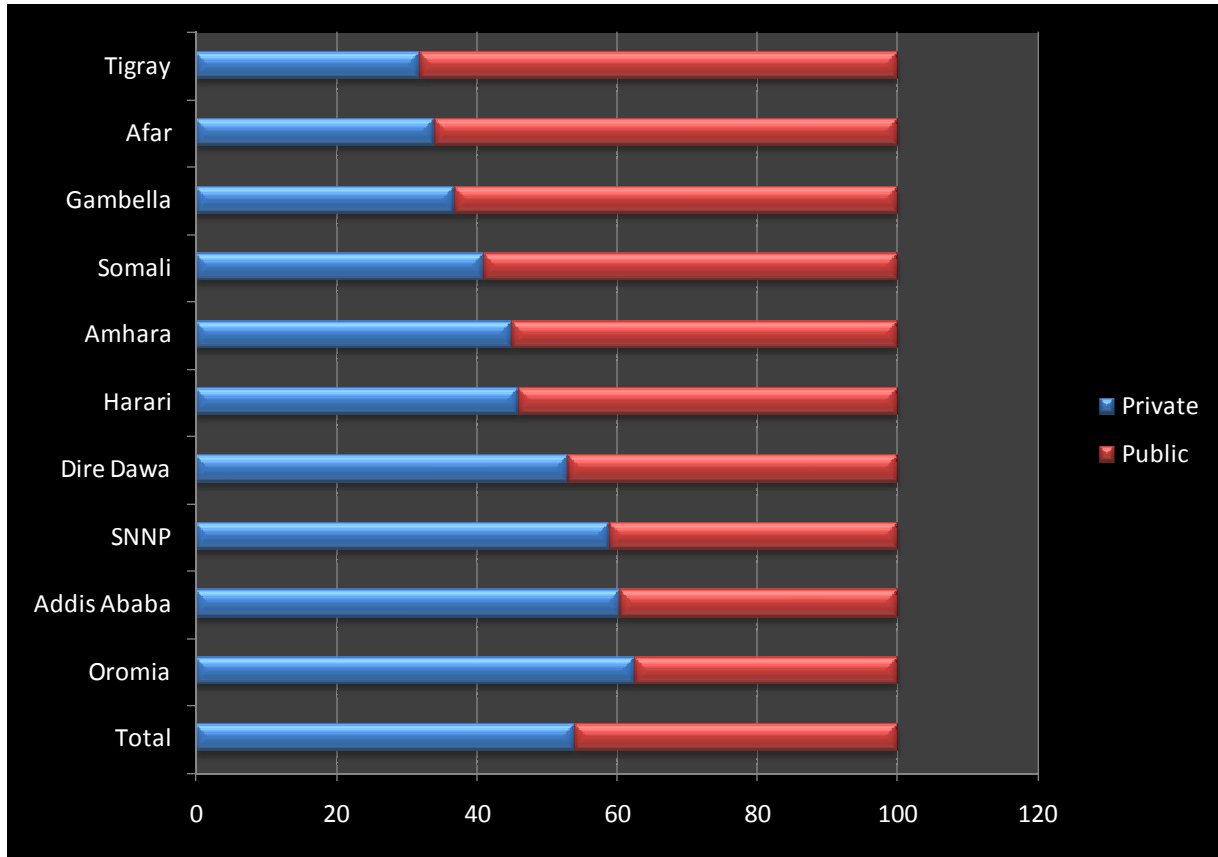
The Role of Government, Private Enterprise and NGO’s [9]

Ethiopia has gone through two stages of health care decentralization in recent years.

- Stage I: From the central to regional level.
- Stage II: Decentralization expanded to the Woreda level. Woreda Health Bureaus accorded the rights to hire, fire and manage health personnel.
- The Government runs most health care service, including: 75% of hospitals, 94 % of health centers, and 82 % of health stations and all health posts.

- On the other hand, the private sector controls 85 % of pharmacies, 81 % of drug stores and all rural drug vendors.
- There was a rapid growth in the number of hospitals 87 to 115, health centers – 257 to 412 – and health posts – 0 to 1311 – between 1996 and 2002. No significant increase was noted in the growth of health stations numbering 2,452 in 2002.
- The number of privately run clinics increased two-fold from 541 to 1,235, between 1996 and 2002, but this took place almost exclusively in urban areas. Addis Ababa in particular has 27% of all private clinics in the country and 50 % percent of the hospitals here are privately-owned.
- In the same period, the number of pharmacies more than doubled growing from 541 to 1,235. Smaller drug shops also doubled - 148 to 309 – while the number of rural drug vendors increased by 27% from 1,460 to 1,856.
- A major need for renovation, or even replacement of buildings housing most of Ethiopia's health services was noted in a 1995 study in which over 50 percent reported leaking roofs, electrical problems, plumbing and sanitary problems. More than a quarter needed major renovations and about 1 in 7 needed to be demolished.
- Availability of drugs has improved, but shortages still abound. Government hospitals have the highest number of the drugs selected in the survey (82 %), private drug retail outlets and health centers (72%), and private hospitals (63%).
- Migration of pharmacists to the private sector has resulted in shortages of pharmacists and druggists in government facilities. In 2000, only 121 pharmacists were working in the public sector compared to 500 in the private sector. The deficiency was partly made up by less trained pharmacy technicians whose numbers increased significantly in the public sector.

Fig. 10.5 Use of Public or Private Facilities (last consultation) by Region.



Source: Based on [8]

Geographical Access [9]

- The average geographical distance that the health care consumer has to travel to the nearest health facility was 7.7 kilometers in 2000.
- Seven in ten households reside less than 10 km from a health care facility. Only four in ten have access to formal clinical care at less than 5 km - or one hour's walk (the usual standard to measure access).
- Due to lack of alternatives, more than 90% of households travel on foot, even when the facility is more than 10 kms. away.

“Rural/urban differentials are very large, with the nearest health facility in 2000 being 1.4 kms away in urban areas and 8.8 kms in rural areas. Regional differentials are also very large, with distances as low as 1.3 kms in Addis and as far as 9.8 kms in Afar. The differential between income quintile is however less marked although, on average, poorest groups live further away from a health facility than richer groups.” [9]

Utilization [9]

- Utilization of services has not matched the steady increase in facilities. The number of outpatient visits remains low at about 27 new consultations per 100 persons per year – just over a fourth of the Health Sector Development Program’s (HSDP) goal of 1.0 visit per person per year.
- The top 10 reasons for a visit account for 47.8 percent of total visits. These include malaria (14.8 %), pneumonia (8.9 %), respiratory system infections (7.8%), accidents (6.2%), abortion (3.9 %), pregnancy, childbirth and puerperium complications (3.8%), cataracts (2.4%), dysentery (1.6 %), gastroenteritis and colitis (1.5%), and meningitis (0.9%).
- Sadly, few consultations occur for diarrhea - the main cause of mortality in children under five.
- A “quality index” calculated by the year 2000 DHS survey showed that antenatal care differed significantly between urban and rural areas. The index in urban areas was 4.5 and 2.4 in rural areas. Regionally, the index varied from 5.1 in Addis Ababa (the highest) to 2.0 in Afar (the lowest). Women in the lowest health quartile also received a lower quality of care. “A consistent and sufficient availability of drugs was considered an important indicator of quality of service”.

About 37 percent of households who visited public health facilities were dissatisfied because drugs were not consistently available. Other main reasons cited for dissatisfaction with the quality of care in public health care facilities included: inadequate skills/knowledge, lack of courtesy on the part of personnel, inconvenience of lengthy procedures, inadequate availability of diagnostic facilities, and the lengthy waiting time. The waiting time between arrival and being seen is very high, averaging 7 hours at government hospital outpatient departments, 6.2 hours at NGO facilities, and 2.7 hours in other private facilities. However, private providers were also considered inferior to large government hospitals because they provide limited laboratory and x-ray and surgical services. They were also cited for excessive charges by requiring more tests and expensive drugs. [9]

Public and Private Spending on Health [9]

- Health expenditure in Ethiopia has increased substantially between 1997 and 2002 but still remains very low even by Sub-Saharan African (SSA) standards at US\$ 5.6 per

capita in 2000. The SSA average was US\$42. The low spending in Ethiopia reflects the lack of resources and low overall GDP. The country's health expenditure as a percentage of GDP (4.1%) is comparable to other low income countries, but the low resource base insures a low per capita expenditure. Even though the recent increase occurred in both public and private sectors, the public spending grew much faster largely due to the infusion of funds from external sources, mainly from donors.

- Overall government expenditures rose by 90% in nominal terms and by 70% in real terms from 1995 to 2002. Capital expenditures increased significantly (by 553%) over the period Ethiopian Fiscal Year 83-94 (1990-2002) in nominal terms, and by 244 percent in real terms. The largest share of public money — roughly 40 % — goes to hospital care year after year. Yet, funding of preventive care such as immunization may have declined over the same period. Recent shifts in government priorities and focus might help reverse this trend.

“However, even when significant amounts are allocated to health, low budget execution often undermines service delivery. Only about 41 percent of regional budgets ranging from 26 percent in Somali to slightly over 54 percent in Afar and Tigray were spent in 2000/01. Similarly, based on the available information from 9 out of 11 regions for 2001/02, execution rates ranged from 30 percent in Somali to over 92 percent in Addis” [9]

Health Personnel [9]

- Ethiopia has one of the highest doctor-population ratios in the world. The nurse-population ratio is slightly more favorable but only because of the large numbers of “junior” or “assistant” nurses with very limited training. Moreover, as most staffers prefer urban areas, rural localities face a never-ending shortage of human resources. Midwifery skills are particularly in short supply with large regions such as Oromia or SNNPR reporting a less than 1:100,000 midwife-population ratio.
- The number of administrative staff is greater than that of health workers by a ratio of 2:1. Moreover, considerable numbers of trained health workers are engaged in non-clinical positions.
- The sex ratio of the health care labor force is very high reflecting the male-dominance in the health care sector. Only 13% of physicians, 11% of health officers, and 39 % of nurses are female. In addition very high percentages of female health-care workers are serving in the urban areas with the highest percentage (60%) in Addis Ababa.

“As a consequence, rural areas where the need for maternal and child health services are the most acute are mostly served by men. Attracting more females into the health profession faces several hurdles: the rate of secondary education is still low among girls in Ethiopia; fear of AIDS seems to make the health profession less attractive than it used to be; married women tend to follow their husbands and not make independent professional moves; and unmarried women face security problems when living and working in rural areas. “ [9]

Training Facilities

In Ethiopia, training capacity remains inadequate relative to planned training targets.

The country has about 30 training institutions spread around the various regions. This is quite a limited number. In a country with a population close to 80 million there are only five universities for training doctors and health officers. Twelve nursing schools have turned out about 2,200 graduates.

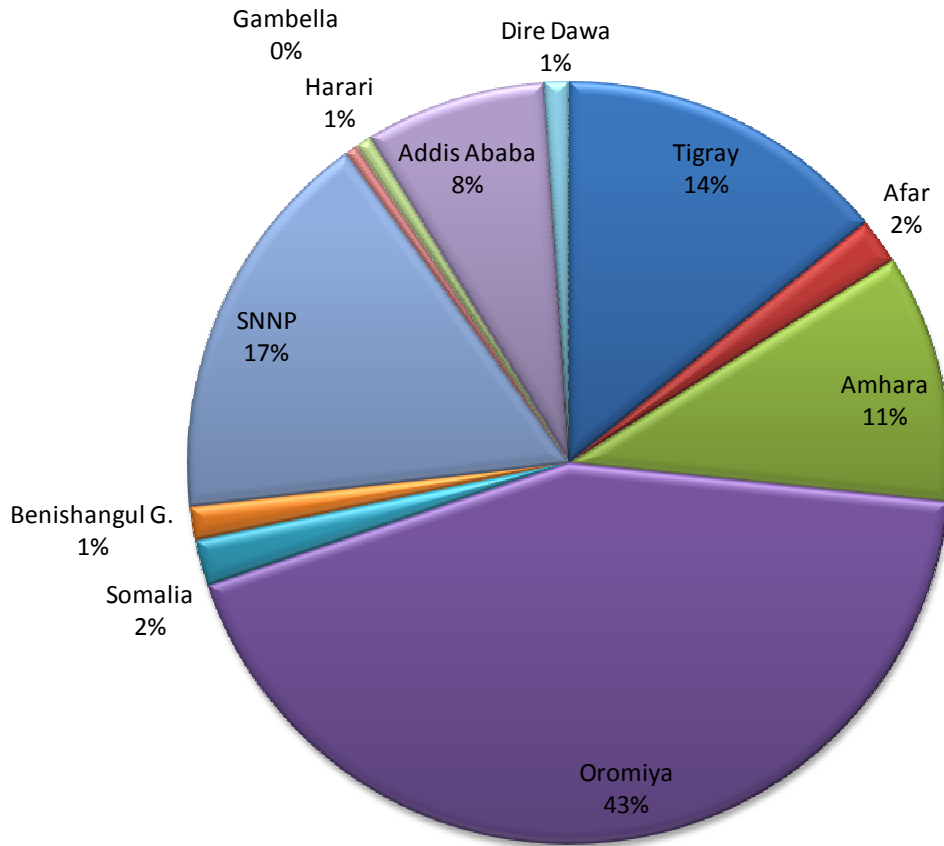
Less than 50 percent of the target for training midwives is met, and at levels far below internationally accepted standards for midwifery. On the plus side, health sector salaries seem to be more or less in line with the minimum cost-of-living increases, and compare favorably with those in the rest of Sub-Saharan African countries. It should also be noted that moral is relatively high among health workers despite the observation of absenteeism in hard-to-serve rural areas, and high staff turnovers.

This may be explained by recent salary increases and the implementation of incentive schemes including hardship allowances, but low absenteeism as well as insights from recent focus groups seem to indicate that there is still a relatively high work ethic among health workers in Ethiopia. Non-salary motivating factors include the more visible opportunities for upgrading and post basic training, as well as an impression that “things were gradually improving”. Health workers however are often not willing to be posted in rural areas and complain about their living conditions when out-posted. Few data exist on the local distribution of staff in regions and the situation has been quite volatile in the context of decentralization. However, there is clearly a large inequity within regions between the regional capitals and urban centers and rural areas. [9]

Regional Distribution of Drug Outlets

Figure 12.5 shows the regional distribution of drug outlets. The percentages are computed out of a total of 3018 outlets consisting of 320 regional pharmacies, 577 drug shops, and 2121 rural drug dispensers in the year 2006/07 CSA report [6]. The percentage share for Oromiya might lead to the assumption of proportionate distribution reflecting population sizes. However, a second glance at the figure reveals the familiar advantage for Tigray, a region with less than a fourth of the population of the Amhara region in 2008 [6] but with greater share of drug dispensing outlets. Note, that Somali, a region with roughly the same population size as Tigray has only a 2 percent share of the dispensing outlet. Tigray has 14 % (seven times as high).

Fig. 10.6 Percentage of Drug Outlets (pharmacies, drug-stores, and rural vendors) by region, 2006/07



Source [6]

Expectedly, Addis Ababa also has more than its share when viewed in terms of its 2008 population but not to a degree observed in Tigray. Since this is not simply an exercise in numbers and percentages the observations represent real differences on the ground and the seriousness of the challenges the people of regions such as Somali and Amhara face in accessing potentially life-saving medications as compared to the **relatively** well-served regions.

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