

Health Care System of Egypt



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Introduction

The major health concerns in Egypt can be prevented through the improvement of the living conditions and drinking water. The major causes of illness in Egypt include: schistosomiasis, diarrhoeal diseases, and trachoma, which can be spread through unsafe water and living conditions. There are grassroots movements, and NGOs that are actively trying to make changes in these areas in Egypt. Also, the beliefs Egyptians hold about illness and treatment affects what type of treatment they will seek. The choice between traditional and biomedical healers is dependent on these beliefs. Finally, the choice between public and private care is affected by the dimensions of the culture, and the availability of health care in Egypt.

EPIDEMIOLOGY OF EGYPT

The health status of Egypt requires attention and requires a solution to help mediate the problem. Egypt's health statistics are significantly worse than countries with a comparable political and economic situation, such as Cuba, but are better than countries same region with comparable population size, such as Libya. The leading causes of illness and death, including schistosomiasis, Hepatitis C, trachoma, diarrhoeal disease and acute respiratory infections, result mainly from inadequate sanitation and living conditions. Both Egypt's health statistics and prevalent diseases demonstrate a need to focus on the underlying political, social and economic factors that are contributing to Egypt's health crisis.

Population and Health Characteristics

The Arab Republic of Egypt is located on the northeastern side of Africa and borders the Mediterranean Sea between Libya and the Gaza strip. Egypt has a deep-

rooted civilization that dates back 700,000 years back to when the ancient Egyptians inhabited the Nile River. It is now the most populous country in the Arab world and the second most populous country on the African continent (US Department of State).

Nearly 99% of the population lives in the Nile River Valley and the Nile Delta (United Nations). Islam is the major religion in Egypt and has been a key influence in its culture.

The epidemiological measures of Egypt prove to be mediocre compared to similar countries. In comparison to Cuba, which has a comparable GDP and is also undergoing economic reforms toward liberalization, Egypt has a much lower health status. On the other hand, Sudan which borders Egypt to the south, has significantly worse health statistics.

	Egypt	Cuba	Sudan
Population	74.0 million	11.2 million	36.2 million
GDP per capita	\$4,274	\$3,649	\$1,361
Life expectancy – m / f	66.0 / 70.0	75.0 / 80.0	56.0/60.0
Healthy life expectancy – m / f	57.8 / 60.2	67.1 / 69.5	47.2/49.9
Child mortality – m / f (per 1,000)	36 / 36	8 / 7	98/84
Adult mortality – m / f (per 1,000)	239 / 158	131 / 85	390/304

(WHO)

As it can be noted, despite the fact that Egypt has a greater gross domestic product per capita, the measures of health are far worse than Cuba. The life expectancy of Egypt is an average of 9.5 years shorter than those living in Cuba, although this difference can be partially contributed to the high rate of child mortality. The healthy life expectancy measures the equivalent number of years a newborn can expect to live based on the current rates of ill-health and mortality. Egyptians can expect to live an average of 9.3 years less in good health than Cubans. The child mortality rate in Egypt demonstrates a significant problem in the country. Thirty-six of every one thousand children born can be

expected to die within the first five years of life. This is a huge disparity in comparing that to Cuba with an average of seven and a half children of every one thousand. Further, the adult mortality shows that there is a continuous health threat after the child survives past five. This rate measures how many people die between the ages of fifteen and sixty. In Egypt, 239 of every one thousand males and 158 of every one thousand females between age fifteen and sixty die. In comparison to Cuba, which has 131 males and 85 females of every one thousand, this shows yet another significant difference. In evaluating the health status of Egypt against a country in a similar economic situation, a serious indication of a health crisis can be seen.

Nonetheless, comparing Egypt to a country also in Northern Africa and similar in size, the Egyptian population shows a better health status. Much of this disparity may be partially contributable to the fact that Egypt is better off economically, as can be noted from the \$2,913 difference between GDP per capita. Both life expectancy and healthy life expectancy shows a large disparity in comparison to Egypt, about ten years between the two countries for both measures. There is a huge discrepancy between the child mortality rates for each country, approximately 36 for Egypt compared to approximately 91 for Sudan. The adult mortality rate also proves Egypt's superior health situation, yielding an average difference of 148, for both males and females. While Egypt's health status may not be as good as a country with a comparable economic situation, Egypt proves to have superior health in comparison to a country in the same region and of similar size.

Major Causes of Illness and Death

The major causes of illness and death include schistosomiasis, hepatitis C, trachoma, diarrhoeal disease and acute respiratory illness. Other diseases prevalent but not major concerns include tuberculosis and HIV/AIDS.

Schistosomiasis

Schistosomiasis is a parasitic infection caused by flukes that use freshwater snail species as intermediate hosts. The infected snails release larvae which then are able to penetrate unbroken skin of humans. Even limited exposure to the contaminated water can lead to infection. Chronic infections can cause damage to the liver, intestinal tract, bladder, kidney, lung and central nervous system and death from schistosomiasis is usually caused by bladder cancer (CDC). The prevalence rate in Upper Egypt was approximately 7.8%, while in Lower Egypt the prevalence rate averaged 36.4% (El-Khoby). The reason Lower Egypt has a higher rate can be attributed to the Nile Delta and rural areas, in which standing freshwater and irrigation channels are prevalent.

Hepatitis C

Hepatitis C is a disease of the liver that causes liver cirrhosis and liver cancer which is spread by blood-to-blood contact. Egypt has the highest prevalence rate of HCV in the world, averaging 18.9% (Mezban) and goes on to reach 45% among adults over forty in rural areas (Fontanet, 2004). The major route of exposure has been attributed to mass treatment of intravenous injections for Schistosomiasis due to inadequate medical procedures and sterilization. Needles were recycled and not sterilized, thus leading to the rampant spread of the virus. Because of the high rates of schistosomiasis in the Nile delta and rural areas, HCV also has the highest prevalence there due to the treatments. Even

though the original mean of transmission has been tackled, there are still approximately 10% of those under twenty that have the disease.

Trachoma

Trachoma is an infectious disease of the eye caused by bacteria. The bacteria are spread through direct contact with eye, nose or throat secretions of the infected person. It can also be spread through contact with objects or from flies that have had contact with such secretions. If left untreated or if the eye continually gets infected, the eyelashes begin to turn inward and scratch the cornea, which eventually will lead to blindness. Trachoma is endemic in the Nile Delta because of the poor hygiene and living conditions. In a survey of preschool children resident of the Delta, over half had moderate to severe active trachoma. Of residents over twenty five, approximately 90% had conjunctival scarring and approximately 17% of those over fifty were blind (Courtright, 1989).

Diarrhoeal Disease

Diarrhoeal disease is caused by a variety of viruses and bacteria, which causes a person to lose both water and electrolytes. This, in turn, leads to dehydration and if left untreated, will cause death. It is directly related to inadequate sanitation and lack of clean water and is the leading cause of death in children in the developing world. In Egypt alone, there is an estimate of 30 million cases annually, which averages to 3.6 episodes per child under five (Jousilahti). In 2000, diarrhea was the leading cause of post-neonatal infant mortality, causing 50.5% of infant deaths and 32.7% of child deaths (Yassin).

Acute Respiratory Infections

Acute respiratory infections encompass influenza, measles, pneumonia and bronchitis and are caused by both bacterial and viral pathogens. The risk factors associated with ARI's include crowding, low birth weight, diarrheal disease, malnutrition, pollution and young age. ARI is responsible for 24.8% of infant deaths and 42.3% of child deaths (Yassin). Combined with diarrhoeal disease, they are responsible for 71.3% of child mortality.

Underlying Factors Contributing to Disease

In Egypt, there are underlying social, political, and economic factors that contribute to the major causes of illness and death. These factors may explain why certain diseases have such high prevalence rates in this country, while others are not a problem.

Social Factors

Social factors that may be the root of the health problems in illness include the cultural practices and beliefs, and the use of unsafe alternative medicine practices. Islam is the major religious practice in Egypt. Throughout the Middle East, this religion is the reason that most cultural norms exist. In Egypt, examples of cultural norms that could lead to problems in health are: giving boys better health care, female circumcision, and violence against women.

In Egypt, the rate of deaths for females between the ages of five and twenty is higher than that of males (Ahmed). This was shown in a population survey, in a longitudinal study that followed a group of males and females from birth until the age of twenty. At one year, the male to female ratio was 100 males per 118 females. By the

time they had reached age five, this fell to 100 males per 98 females. At age twenty, the ration changed to 100 males per 91 females. This is most likely caused by the inequality in the amount and quality of health care given to males versus females during these critical years. This study showed that males were given better health care throughout childhood for digestive and respiratory illnesses, which stems from cultural beliefs (Ahmed 1990). The inequality of males and females is a huge problem throughout Egypt, and must be addressed in order to improve overall health.

Another social factor that contributes to illness and death is female circumcision, a common practice throughout Egypt. Female circumcision is done in order to ensure the marriage potential for a female. Circumcision is thought to decrease the sexual desire of the female during adolescence. Parents will have their daughters circumcised in order to guarantee that she will be a virgin until marriage. In Egyptian culture, as well as many others, virginity until marriage is a core belief, and the violation of this can result in death (Douki 2003).

One major problem with female circumcision is that poor families will have this procedure performed in unsanitary conditions. Since this cultural belief is so strong, the necessity for female circumcision often outweighs the risks of having an unsafe operation. This could result in infections, which could lead to death if untreated. Although the practice of female circumcision has declined in recent years, the majority of adolescent girls are still getting circumcised today (El-Gibaly 2002).

Unsafe abortion is also a huge indicator of poor health for reproductive-aged women. One out of every eight deaths that are related to pregnancy are due to unsafe abortion practices. In Egypt, abortion is illegal unless multiple doctors say the birth will

put the mother's life in danger. As a result of these strict laws, many unsafe abortions are performed. In Egypt, 15 out of 1000 abortion patients are subsequently admitted to the hospital for complications (Singh 2006). If the social stigma and laws against abortion were less strict, many of these hospitalizations and deaths could be prevented.

Political Factors

In Egypt, as in many other countries, the health care services are provided unequally to different demographic groups. In this country, 57% of health care expenditures are paid directly out of pocket (Gericke). Also, males receive 20% more of the public spending than females (Gericke). These statistics show the necessity for an increase in public spending on health care in this country.

Another problem is that the health care system focuses on tertiary care (Gericke 2007). In Egypt, primary care is reserved for the wealthy. If there was a greater focus on primary care, illnesses such as schistosomiasis, trachoma, and diarrhoeal diseases could be either prevented or treated early. Early treatment would decrease the likelihood of the illness resulting in complications or death. Another major problem is the presence of asbestos in all of the water systems in Alexandria, Egypt (Hosny 2006). These asbestos are linked to health problems, and are a serious concern (Hosny). In order to increase the overall health of the population of Egypt, the focus should be on distributing clean water and nutritious food.

Economic Factors: The Impact of Globalization

Although the rate of poverty in Egypt is relatively low at 4%, high rates of child malnutrition still exist (Galal 2003). 16% of children in Egypt are malnourished (Galal). This inconsistency could be due to the impact of globalization. Many citizens of Egypt

depend on farming in order to survive. In Upper Egypt, the farmlands are smaller, with sparse crops. Globalization may have impacted the rate of child malnutrition by forcing the families to sell all of their crops in order to make enough money to survive, leaving the family with scarce food. This is the result of globalization because the individual family farms are not as productive as larger, more wide-scale farms (Galal, 2003). The globalization of the food supply leads to high rates of child malnutrition, which makes the children more prone to illnesses.

Another economic factor is the huge economic disparity that exists. In Egypt, the rich spend 67% more of the public funds for health care than the poor (Gericke 2007). This inequality shows that, while the rich are being properly cared for, the poor are left with very few public funds. The lack of funding for the poor causes them to only receive tertiary health care, which leads to more severe health problems in the long run.

BELIEFS ABOUT ILLNESS

Egypt's history of native medical practices is important to understanding the contemporary beliefs about illness that exist in this culture. Ancient Egyptian procedures, traditional remedies, and magical healers are all part of Egypt's history of medical practices. Today, biomedicine has replaced the traditional methods of healing in many areas of Egypt. The decision among the types of biomedical providers is largely based on factors such as geographic location, income, and insurance coverage of the patient. Also, cultural factors such as gender and age of the patient help to determine which type of healer he or she will choose.

A wide range of historical medical practices have existed in Egypt, including ancient practices, herbal, and magical healing. Ancient Egyptians developed medical

procedures that were influential around the world. Although many of the traditional types of healing have lost their influence, practices such as herbal and magical healing are still used by people living in poverty (Barnard, 2000). In modern Egypt, biomedicine is taking over as the dominant medical practice, and replacing the more traditional forms of healing.

Ancient Egyptian Practices

Ancient Egyptian medical practices had elements that were the first of their kind. Ancient Egyptians documented the use of surgical techniques in the Edwin Smith Papyrus. This is the oldest surgical manuscript ever discovered, written around 3000 B.C., and discovered in 1862 in Luxor, Egypt. This text included 48 detailed case studies of injured patients, and the methods used by the healers. Through this document, the medical practices of the ancient Egyptian healers were recorded and passed on. These healers were the first to use a physical examination of the patient's symptoms in order to learn more about the underlying injury. It is possible that even Hippocrates and the rest of the ancient Greeks used this manuscript as a frame for their teachings (Schafer, 2006).

Traditional Healers

Over time, many traditional practices in Egypt have been developed to provide a treatment option for the entire population. As biomedicine became more popular, the traditional practices were reserved for the poor. In the destitute areas of the southern Egyptian desert, several practices have been used to treat certain ailments. In a practice called 'kaya bil-naar,' metal instruments are heated and pushed on various parts of the body to create oval scars. This technique is used to rid the body of many internal disorders. 'Muhawy' is a belief that snake bites can be averted by having a snake bite the

earlobe of the patient. Also, herbs are used to treat illnesses that are not life-threatening (Barnard, 2000). Finally, baladi curative treatment is another practice used in Egypt. This focuses on restoring the body's natural balance, and rids the body of any objects that damage this equilibrium (Early, 1988). These traditional methods of treatment are becoming increasingly less common as biomedical treatments are gaining influence.

Magical Healers

Magical healers have had an impact on Egyptians' attitudes about medicine. When the cause of the illness is attributed to a demon or other supernatural force, a magical healer must be used to cure it. In order to treat magical ailments, incantations are performed. Incantations are ritual ceremonies done by the healer in order to rid the body of demons and supernatural forces. In some cases, the illness can be the result of both physical and natural causes. In these cases, the healer has an obligation to play the role of the double healer in treating both the physical and magical roots of the illness (Gyory, 2002). As with other traditional medical practices, magical healing in Egypt has been greatly replaced by biomedicine (Schafer 2006).

Biomedical Providers

Egyptians also have a variety of biomedical providers to choose from. Some of the major contemporary health care providers are the Ministry of Health, the Health Insurance Organizations, and private providers. The Ministry of Health is the largest single provider of health care in Egypt (Health Care Utilization, 37). The MOH is affiliated with the government, and utilizes nineteen percent of Egypt's overall health care budget (Rannan-Eliya, 11). The Health Insurance Organization is also affiliated with the government. It was established in 1964 in an attempt to provide health care for

all residents of Egypt, but did not succeed at this plan (Rannan-Eliya, 13). Currently, the HIO covers all public and private government employees, as well as school-going children (Rannan-Eliya, 14). The other major biomedical option is private health care, which provides for the majority of Egyptian citizens.

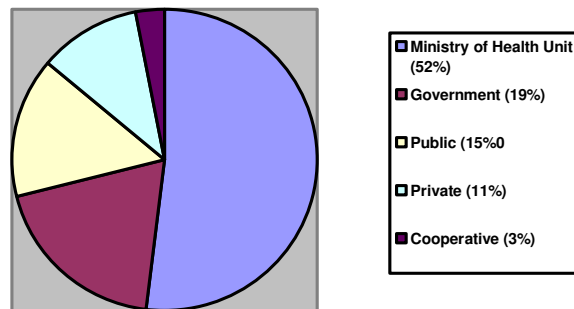
CHOOSING AMONG HEALERS

Once a resident of Egypt decides to seek treatment, they are then confronted with a decision to choose a provider. The decision can be broken down into choosing between either private or public providers (which encompasses government, Ministry of Health and other public facilities). The most influential aspects of the decision are the geographic location of the patient, the patient's income and if the patient is insured.

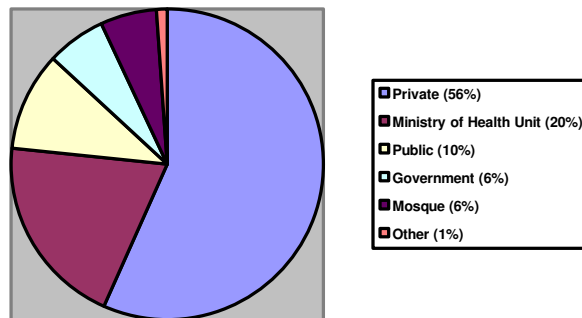
Private vs. Public Care

Whether the patient is seeking either outpatient or inpatient care influences the decision to go to a private or public provider.

Inpatient Visits



Outpatient Visits



(Nandakumar, 1998)

To demonstrate this and other trends of healthcare in Egypt, the Ministry of Health distributed a Data for Decision Making Project Egypt Household Health Care Use and Expenditure Survey. Over 9,900 households participated in the survey and almost 51,000 people were interviewed. In this study, the public sector is broken into three categories, facilities owned by the Ministry of Health, facilities owned by all other ministries of the government, such as university hospitals or military hospitals, called “government,” and all other public facilities, such as the Health Insurance Organization or Curative Care Organizations, called “public.” Mosque and other healthcare facilities that do not fall under these categories are listed separately. This chart demonstrates that the majority of Egyptian residents choose to go to a private provider, at 56%, compared to 36% that choose to go to a MOH, government or public facility. In most cases, Egyptian residents rely on private physicians as their first contact when confronted with a health problem (Zeid). This is striking due to the fact that “every Egyptian has access to free care through a government facility within five kilometers of their place of residence” (Nandakumar, 8). This most likely reflects a belief in more personalized and higher quality of services

in private facilities (Nandakumar, 8). On the other hand, 86% of all inpatient care occurred in one of the three public facilities, compared to only 11% of visits occurring in the private sector. This is attributable to the fact that 90% of all hospital beds are in the public sector and inpatient care in a private facility is associated with a relatively high cost (Health Care Utilization, 40).

Geographic Regions

The choice of either a public or private provider is influenced by the location of the person seeking health care. Rural residents (61%) are slightly more likely to go to private providers for outpatient care than urban residents (52%). This is partly due to the lack of mosque clinics, which are funded by and attached to a community’s mosque, available in rural areas and the poor quality associated with public facilities (Health Care Utilization, 42). Also, the government allows physicians to have private practices as well, which may be a cause for the saturation of private providers in rural areas (Nandakumar, 7). For inpatient care, rural residents are more likely to use MOH facilities and less public and private facilities, attributable to the cost of private practices and the lack of public facilities in rural areas (Health Care Utilization, 42).

Income

For all income levels, private providers are preferred for outpatient visits, but the higher the income, the more likely it is that a private provider is chosen.

	Outpatient		Inpatient	
	Private	Public	Private	Public
High income	64%	16%	24%	56%
Low income	44%	41%	6%	82%

(Health Care Utilization, 45)

Even for the low income group, 44% of outpatient visits were to private provider, which indicates the strong preference of private facilities, regardless of income. The choice of public facilities for inpatient care is probably caused by the absence of private providers for this type of care, the lower cost of public care and that most of the hospital beds in Egypt are in public sectors (Health Care Utilization, 46).

Insurance

Whether or not a person is insured plays a role in the type of provider they will seek. Individuals with insurance are more likely to use public facilities than MOH or government facilities for treatment. This is because most health insurance in Egypt is provided by the HIO, which only covers services at public facilities (Health Care Utilization, 47). However, even with insurance, 41% of individuals still choose to go to private facilities which further reinforce the notion that private facilities are viewed as much more superior to public facilities.

ASPECTS OF SOCIAL STRUCTURE AND CULTURE THAT AFFECT THE TYPE AND USE OF SERVICES

There are several aspects of social structure and culture in Egypt that affect the type and use of health care including geographic location, gender and age.

Geographic Location

There is significant difference between the utilization of health services dependent upon the location of the person seeking care. In comparing the number of outpatient visits per year, the urban resident has an average of 4.48 visits, compared to 2.75 visits by a person living in a rural area. As for inpatient visit rate, urban and rural areas differed as

well with .052 visits per year and .0185 visits per year, respectively (Health Care Utilization, 26). This may be reflective of the difference of insurance coverage, with 20% of individuals above 18 insured in urban areas, compared to 10% in rural areas.

Gender

Another influence over the utilization of health care services is gender. Insurance, or the lack there of, has been proven to play a part in seeking and choosing health care, and insurance coverage differs between males and females. 21.97% of males over age 18 are insured, while 8.19% of females over age 18 are insured (Health Care Utilization, 23). This is due in part to formal labor force participation is much lower for women than for men (Distribution of Health Care, 29). However, despite this difference in insurance, the utilization rates between men and women do not vary very significantly. Women have 3.25 outpatient visits and .027 episodes of hospitalization per year, while men have 2.75 outpatient visits and .027 episodes hospitalization per year. The health care visits by women are largely funded by out-of-pocket spending, and when women do use public services, the treatments tend to be much less resource intensive than those used for men (Distribution of Health Care, 29).

Age

Age also seems to have an influence over the decision to seek care. It is important to note that all children in school are provided with health insurance, so 57% of 6-18 year olds are covered, compared with 15% of those over 18. (Health Care Utilization, 55). Despite this, the utilization rates for school age children are low, at .016 visits per year, compared to other age cohorts. People aged 50 to 59 have the highest

utilization rate of 4.99 visits a year and children aged 0 to 4 years have the second highest at 4.45 per year.

Healthcare Services

Egypt has a very complex, pluralistic healthcare system with many different providers and financing agents. There are three main sectors of healthcare services: government, public and private.

The government sector encompasses the Ministry of Health, university hospitals and military hospitals. The Ministry of Health is Egypt's largest single financier and provider of healthcare (Allianz, 1). It has the largest network of primary, secondary and tertiary services in Egypt and runs rural hospitals, district hospitals, general hospitals and specialized hospitals (Loffredo, 8). The services provided by the Ministry of Health are available mostly free of cost to all citizens (Rannan-Eliya, 5). The university hospitals and military hospitals are owned and run by the Ministry of Higher Education and the Ministry of Defense, respectively (Nandakumar, 37).

The public sector providers are organizations that are financed and monitored by a governmental ministry but they are autonomous in their management and have other sources of financing. The two main players in this category are the Health Insurance Organization (HIO) and the Curative Care Organization (CCO). The HIO is a social insurance agency that provides health insurance to employees, students and widows through mandated premiums from employees and employers and co-payments for services received. HIO also provides healthcare through its own network of hospitals and clinics as well as contracting with private sector providers (Allianz, 1). The CCO's are each run independently of each other but come under the authority of the MOH. There

are six branches that are specific to six different governates, Cairo, Alexandra, Port Said, Kalyubia, Damietta and Kafr El Sheik. The CCO's provide services to individuals, MOH, HIO and companies that have contracted with them. (Allianz, 3). The services provided by the public sector are strictly curative, but include both inpatient and outpatient services (Loffredo, 10).

The private sector of Egypt's healthcare system includes both private-for-profit and private-not-for-profit providers. Private healthcare services include mostly curative services, but some preventative services, such as childhood immunizations, family planning and antenatal care, are provided as well (Allianz, 2). Most of the clinics are staffed by government doctors because they are allowed to practice privately in their off-hours (Rannan-Eliya, 6). There are approximately 1,330 private hospitals in Egypt which represents almost 50% of total hospitals (Labib, 1).

The Egyptian healthcare system is mostly based on a curative approach, while the majority of the health problems could be alleviated if there is more of an emphasis on primary care and prevention. The Ministry of Health budget allocates 66.6% to hospitals, 25% to primary healthcare clinics and 12% to preventative services. The inadequate funding of primary healthcare has resulted in a lack of supplies and a well-trained staff and has caused a significant increase in private services. Over 60% of primary care visits are to a private healthcare clinic and is used widely even by poor and rural populations (Nandakumar).

Expenditures and Statistics

In comparing the government expenditure on health, Egypt is slightly worse than Cuba, but is spending much more on healthcare than Sudan. However, when compared

to a country such as the United States, it is evident that there is much more that can be done.

	Egypt	Cuba	Sudan	United States
Expenditure per capita	\$235	\$251	\$54	\$5,711
Percentage of GDP	5.8%	7.3%	4.3%	15.2%

(WHO Report)

Training and Retention of Personnel

Egypt has a total of eleven medical schools. There is a standardized admissions test which is taken upon the completion of high school. Medical education lasts for six years – the first three years cover the basic medical science, and the last three years cover clinical science. At the end of the six years, there is a required twelve month period in which the student must work at a government or university teaching hospital. After training, the student registers with the MOH and is granted medical licensure as a General Practitioner. Retaining personnel in Egypt is not as much of an issue as physicians choosing to go into private rather than public or governmental practice. Currently, there are no programs being implemented to attempt to reverse this trend.

Distribution of Healthcare

In Egypt, there is significant inequity between income, gender and geography. The high percentage of out-of-pocket payments, due to the availability and perceived quality of private providers, creates a major barrier for accessing health services. Further, males receive 20% more per capita funding than female from public spending. This is a result of HIO spending in which males receive almost three times the amount of benefits as women. Last, per capita public spending is 67% higher in richer urban areas than in rural areas (Gericke, 5).

Role of the WHO

In Egypt, the WHO has primarily been involved with reforming the health sector model for finances, and developing the Healthy Cities project. Working with the World Bank, the WHO has developed a plan for these changes to be implemented. This plan uses a computer software called EgyptPro to see exactly what types of health services are necessary, and allocating funds in order to meet the demand for services (Fairbank, 12).

EgyptPro analyzes both inpatient hospitals, such as sponsored by the Ministry of Health, the Health Insurance Organization, etc., and outpatient programs, such as clinics, pharmacies, mosques, etc. (Fairbank, 34). The funding used in this model is provided by health insurance contributions, out-of-pocket expenditures by patients, and donor funding (Fairbank, 36). Once the computer model is established using the available information, a health sector model is developed (Fairbank, 42). This computer has been developed, but not implemented in Egypt yet.

Another important project of the WHO was the organization of a bike race around Egypt for World AIDS Day (News). This race is 1200 km, and goes across Egypt. At every stop on the race, participants handed out information about preventing the spread of HIV and AIDS (News). This project is one of many organized by the WHO across the world to promote the prevention of AIDS.

The WHO has also developed a project called Healthy Cities, which has incorporated the support of international agencies and local grassroots organizations (Harpham, 27). This project aims to improve the overall living conditions of Egypt, which will then affect health status. Both industrial and housing conditions are being

improved through this project (Harpham, 27). The safety of the workers and amount of pollution are being addressed through the industrial aspect. In addition, the sanitation, garbage, and basic health care systems are being concentrated on through the housing aspect (Harpham, 27).

Role of NGO's

NGOs in Egypt deal with many issues. Some of these are focused on women's health, family planning, and improvement of the living conditions. In order to improve the health of women in Egypt, the vast inequality between women and men must be addressed. Since education is a major source of inequality between males and females, this issue must be changed in order to make progress in women's health.

The NGOs that deal with women's health are focusing on getting better education for girls in Egypt. There is a five-year project that is expanding the amount of access girls have to education, which was organized by the Center for Development and Population Activities (Egypt Partners). In order to fulfill this project, local NGOs are paired up with local parents, teachers, and community leaders. The objectives of this program are to greatly increase the enrollment of girls in primary schools, and to expand the resources girls are given in school (Egypt Partners). This project has been organized by several NGOs, and strives to increase the status of women, and educate them about health and other issues (Egypt Partners).

Also, family planning is an area that many NGOs have focused on in Egypt. Due to the influence of NGOs, the use of family planning methods nearly doubled from 1980 to

1992 (Wafai, 2007). This was done through the use of the media, in order to dispel the myths about the side effects of contraceptive use. NGOs such as Family of the Future and the Clinical Service Improvement Project have promoted the use of a variety of contraceptive methods, to suit each woman's lifestyle (Wafai, 2007)

NGOs have also focused on improving living conditions and health care in Egypt. Since the 1980's, NGOs have gained support throughout Egypt, and have focused on improving the inadequate shelter, water, and health care access (Bayat 23). Although the NGOs have attempted to solve these problems, they have not been able to make enough progress to satisfy the needs of the poor people in Egypt. Therefore, this has stimulated the development of grassroots movements throughout Egypt (Bayat 23).

Role of Grassroots Movements

Grassroots movements in Egypt have undertaken projects such as promoting women's health and improving the environmental conditions that lead to poor health. In Egyptian cities such as Cairo, structured grassroots movements are not common (Bayat 23). This is due to a lack of legal, cultural, and political structures that would support wide-scale activism (Bayat 23). Therefore, the grassroots movements that exist in Egypt have been made up of individuals participating in direct actions in order to make a difference (Bayat 24). An example of these actions is an individual lobbying for safer abortions.

Grassroots movements have developed in order to support women's reproductive rights in Egypt. They have begun to lobby for the women's right to choose the type of birth control used (Grassroots Women). Also, safer abortions have been supported by

grassroots organizations (Grassroots Women). Also, a social structure in which women will have the right to make their own decisions about their reproductive rights has been pushed for by grassroots activists (Grassroots Women). All of these are factors which promote the health of women, and their children.

Grassroots activists have also participated in the Healthy Cities project. This project aims to bring the views of the people into the light of the local governments through grassroots organizations (Harpham, 38). According to Hartham, one of the implementers of the Healthy Cities project, in order for this project to truly thrive and sustain, the support of grassroots activists is crucial (Harpham, 38). Without the support of grassroots organizations in this project, the local politicians will have overwhelming power (Harpham, 38).

Major Problems and How They Are Addressed

Through this research, two major problems with the health care system in Egypt have been found. First, the inequality between genders must be reconciled. Since women are still inferior to men in Egypt, they have little say in their rights to health care (Grassroots Women). Overall, NGOs and grassroots movements have been working to fix this disparity. Second, the inequality between the rich and poor in Egypt contributes to overall health problems. The poor people in Egypt suffer from terrible living conditions, with limited resources to create change (Bayat 23). The development of grassroots movements has allowed the poor sector to have a voice in their quality of health care.

Conclusion

Overall, the major problem with providing health care in Egypt stems from the

inequalities between demographic groups. The rich get much better health care than the poor, and males receive better health care than females. These problems are the result of the structure of the health care providers, since insurance is provided through individual employment. In order to prevent illnesses such as trachoma and diarrhoeal diseases, the improvement of living conditions, such as housing, food, and water must be implemented. These changes can be made through the activism of groups such as NGOs, the WHO, and grassroots movements.

In the future, these movements will probably gain ground in Egypt. Although the answer seems simple, these changes would require a modification of the entire Egyptian culture. In order to get from a culture that revolves around an unsanitary river, to one with equality between genders and socioeconomic groups, huge steps must be made. These changes will need the support of large-scale grassroots movements, instead of the individualized actions that are taking place currently.

The comparison of Egypt to Cuba shows that Egypt can follow the example of Cuba in order to improve overall health. Cuba's health status is far better than Egypt's, which can be explained by social, political, and economic factors in Egyptian society. Schistosomiasis, hepatitis C, trachoma, diarrhoeal disease and acute respiratory illness, the leading causes of death in Egypt, are highly preventable with proper primary care. Before any major improvements in overall health can be made in Egypt, the underlying social, political, and economic causes of poor health must be fixed.

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