

The Impact of Healthcare on Sustainable Development

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Abstract: Development entails the growth of per capital income and the reduction of poverty. Other measures of development include capital inflows, the capacity to produce capital goods, and balances in trade. With regards to health, it includes the quantities and qualities of food, adequate and decent healthy housing (shelter). Health services must be sufficient to meet basic human needs. Therefore, one of the main goals of development is health. When persons enjoy an adequate healthful diet and clean drinking water, sufficient healthcare, sanitation and disease control, plus sufficient education and employment opportunities. This paper deals with health as an important index for sustainable development in The Kingdom of Saudi Arabia (KSA) from 2000 till 2013. It shows how health elements reflect and contribute in the progress of the country socially, and economically. KSA is the largest Arab country with an area of 2,400,000 km². It has the largest proven reserve of oil (26% of the world, 2008). The revenues obtained are used to finance economic and social development. Despite the presence of petroleum revenues, the level of development is low in some parts of the kingdom, because of its wide area, and the restricted the role of women in business and public. The political instability in countries near it affected development and economic growth as a whole, like the Iraq-Iran war (1980-1988), the two American wars in Kuwait (1991 and 2003), and the conflict between Israel and Palestinians.

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Sustainable Development:-

It is the development that meets the needs of the present without compromising the ability of future generations to achieve their own needs, ease eliminating poverty, and work within social and technological limits. This needs to take in consideration the challenges of the biophysical limits to growth on one hand, and business as usual approaches to development on the other, in order to avoid dramatic disruptions of life on earth. The fact that the global economy is greatly driven by profits, in addition to approaching the global limits of growth, have resulted in a less equitable distribution of wealth livelihood security. The consequence is that sustainable development efforts require a restructuring of societal relationships.

Sustainable development deals also with the qualitative improvement in livelihoods, permitting increased economic activity without exceed the capacity of the ecosystem, so it emphasizes on adjustable economic variables like income and profit. It has become clear that the world's poorer individuals will bear the brunt of damage of the world's ecological systems and will carry most of the costs associated with it, while they are not in a position to make any changes themselves.

Sustainable development is needed now more than before, because man exploits resources of the earth, and many of said resources are exposed to depletion by over-use and misuse, so we must

maintain these resources for the coming generations by following scientific methods. Using several techniques would improve techniques to protect the environment as a free good and a sink of wastes and as a public good and resource for all humans and other species live on the earth by energy conservation, recycling and smart growth. So it is necessary to have a balance between resource flows and human-made production funds as labor (which is connected with health) and capital. This will promote ways of sustaining lifestyles of the present without harm the opportunities of future generations.

Health as an indicator of development:-

Economic and population growth, the availability and depletion of resources and the carrying capacity of the earth and atmosphere are the core concerns of sustainable development. Many environmental resources are now in decline as fish, minerals and fresh water.

Factors affecting health care:-

The most important of it are:

1-GDP and per-capital income:

GDP (Gross Domestic Product) is the sum total of value of goods and services produced by a national economy. GDP in KSA is continuously increasing. The year 2004 was the best year in the history of Saudi economy in terms of performance since 1982. After achieving a robust growth in 2003 and 2004, Saudi Arabia is expected to achieve another prosperous years in 2005, 2006, 2007 and 2013

attributed to:- (Kingdom of Saudi Arabia Review 2013)

This rise is contributed to the strength of the oil sector, acceleration of reform measures, growth of foreign asset of SAMA, and a strong private sector. Saudi Arabia remains vulnerable to oil prices movement, contributing to a volatile pattern of economic activity. The increase in oil prices has resulted in a robust growth for the Saudi economy as the nominal GDP grew by 16.8% in 2004 to US\$ 250.56 billion and US\$ 475.73 billion in 2008. The real GDP grew by 7.66% and 10.43% in 2003 and 2004 and 4.5% in 2005 respectively.

Saudi Arabia economy continues to be affected by changes in oil prices, so its GDP decreased in 2009 to US\$ 369.67 billion. It then increased to about US\$ 438 billion in 2010, US\$ 477.3 billion in 2011. The average growth of the Saudi GDP is 6.1% annually, which is better than the average growth in the developed countries. The GDP growth in constant prices 2013 was 3.95% (primary results of population census 2010, Central dept. of statistics and information S.A)

The per-capita income, or the share of every person from the total national income, is estimated in Saudi Arabia Now (2013) as 98.713 thousand Riyal. Dr. Fahad Ben Gomaa (Majalet El Youm 1st May 2013) predicted that the per-capita income in KSA will be 137.48 thousand Riyal in the future.

As a whole, the per-capita income in KSA increase by 27.2% in 2012 compared to 2010, and increased in 2010 compared to 2009 by 17.1%. The per-capita income is increasing continuously despite the inflation and the increase in the number of population by either the Saudis or the migrants. The sound economy and well-established industry base affect the Saudi community by increasing their income leading to high per-capita income. Saudi Arabia is ranked at a high level in the Human Development Index (0.75), which gives the country a rank of 55 out of 194 countries. The improvement in the national income is expected to impact positively on the various services including the healthcare services (Central of Statistics and Information 2013)

The relation between the GDP per-capita income and healthcare is very important. This enables the government to provide healthcare to all parts of the kingdom despite its wide area, to establish hospitals and faculties for medicine, and to provide health services for everybody in order to maintain a health and productive population. It also allows the government to cover healthcare expenses during the pilgrimage season.

Education and Literacy:-

It is a factor that affects economic development by the extent and quality of education in a country. Education is connected strongly with health. The educated person follows the health bases of cleanness to avoid diseases, knows the benefits of the healthy diet and pure drinking water, in addition to the benefits of vaccinations. Literacy also allows individuals to read the health rules in the newspapers and televisions.

Saudi Arabia fulfilled many systems and programs of education to eliminate illiteracy. The gross enrollment rate in primary education (2013) was 106.4%, while the net enrollment rate in primary education in the same year was 96.5%. This means that almost all children enter the primary and receive compulsory education in order to read and write. The rate of illiteracy of population in Saudi Arabia is 5.6% (2013) (Central Department of Statistics and Information KSA,2013). KSA achieves many steps of progress in spreading education especially with women in order to overcome the negative effects of illiteracy and to contribute in the social and economic development of its population.

The ratio of illiteracy is very low in SA if it is compared with other Asian and African countries.

The advancement in health services, combined with other factors such as improved and more accessible public education, increased health awareness among the community and better life conditions, all contributed to the significant improvements in health conditions.

The budget of healthcare in KSA:-

The third factor influencing social and economic development. The government of Saudi Arabia provides all citizens and expatriates working within the public sector with full and free access to all public health care services. Government expenditure on the MOH increased from 2.8% in 1970 to 6% in 2005 and 6.2% in 2009.

According to WHO, the total expenditure on public health during 2009 was 5% of gross domestic product (GDP). The MOH is responsible for managing, planning and formulating health policies and supervising health programs health services in the private sector.

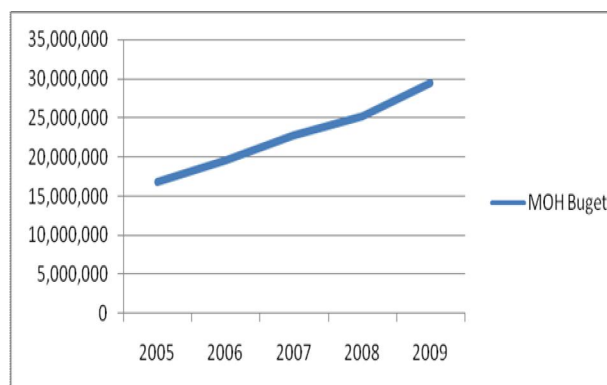
MOH: Ministry of Health

The budget of health is in constant increase in KSA because of the importance of the people's health on society and economy. Table 1 shows the development of health budget and its ratio of the government budget in Saudi Riyal.

Table 1 Budget of MOH 2005-2006

Year	Government Budget	MOH Budget	%
2005	280 000 000	16 870 750	6
2006	335 000 000	19 683 700	5.9
2007	380 000 000	22 808 200	6
2008	450 000 000	25 220 200	5.6
2009	475 000 000	29 518 700	6.2

Source: Al Maliki Eastern Mediterranean Health Journal, 2011.

**Figure 1 Budget of MOH 2005-2009**

The table shows that health budget increased by 75% by absolute numbers in 5 years from 2005 to 2009, but the percentage did not exceed clearly because of the increase of the government budget.

It is clear that the government of KSA spends a lot on healthcare in order to improve the style of life of the people and the economy, for the progress of the country, and the luxury of its people to live in a healthy environment.

Measures of healthcare and its reflection on sustainable development:-

There are many measures or indexes that must be taken into consideration to apply successful health programs in any country, they are:

1-Population and natural growth rate:

KSA's population is estimated to be 29,994,272 persons in 2013, a figure based on the census of 2010. Population person growth rate was 2.7%. This high rate indicates that SA is still in the stage of population explosions and its population will double in a very short time (26 years) according to the doubling time of the rule of seventy (70/2.7 growth rate) (Stutz & Warf 2008).

The last population census of SA in 2010 was 27.1 million compared with 22.6 million in 2004.

The number of the Saudi population was 20,271,058 people, representing 67.58% from the total or about 2/3 of the population, while the rest are foreigners. The Saudi growth rate was 2.15%, which means that the growth rate of the foreigners is higher. This will present the government with a big burden regarding the responsibility for health and educational services, especially for the young people. (Central Statistics and Information 2013).

The high growth rate of population is due to the decrease of mortality rate as a result of progress in healthcare programs, which the Kingdom achieved a long time ago (vaccination of infants 1995) (Report of MOH in 2002), while the birth rate is still high. Table 2 shows this data.

Table 2 Birth, Mortality and Fertility Rates 2001-2012 (Saudi Citizens)

Year	Birth Rate per 1000	Mortality Rate per 1000	Annual growth rate (%)	Fertility Rate Child/Female
2001	26.2	3.9	2.2	3.8
2002	25.3	3.8	2.1	3.6
2003	24.5	3.7	2.1	3.5
2004	23.8	3.6	2.00	3.3
2005	23.2	3.6	1.9	3.2
2006	22.6	3.5	1.9	3.1
2007	22.1	3.4	1.8	3.1
2008	21.7	3.4	1.8	3.00
2009	21.2	3.3	1.8	2.9
2010	20.8	3.3	1.7	2.8
2011	20.3	3.3	1.7	2.8
2012	19.9	3.3	1.6	2.7

Source: Kingdom of Saudi Arabia, population census 2010

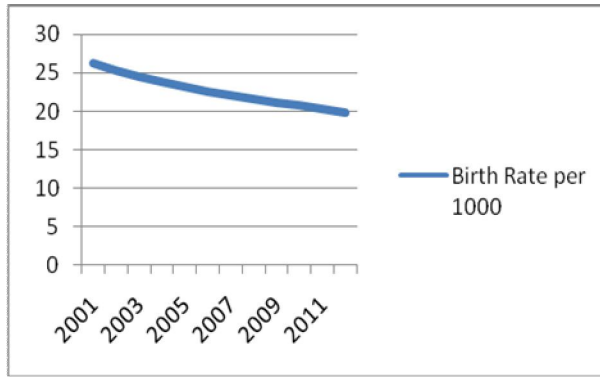


Figure 2 Birth Rate per 1000 (2001-2012)

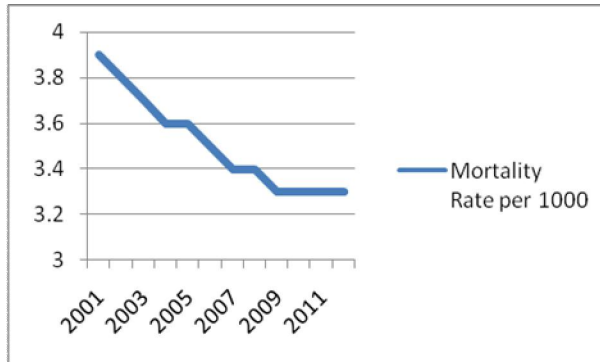


Figure 3 Mortality Rate per 1000 (2001-2012)

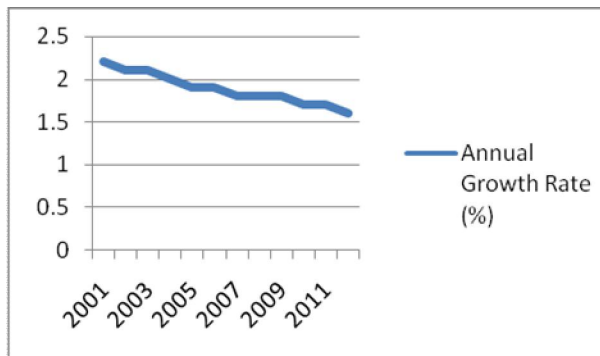


Figure 4 Annual Growth Rate (%) (2001-2012)

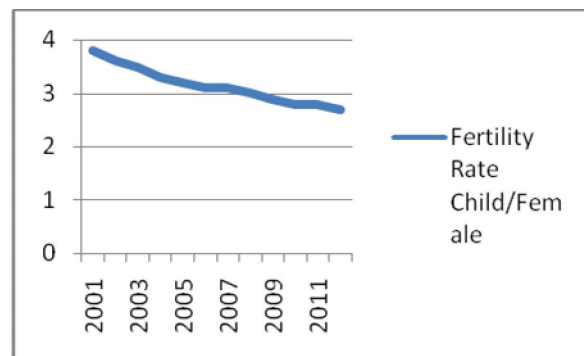


Figure 5 Fertility Rate Child/Female (2001-2012)

From the previous table and Fig.2, we find that the high birth rate is the main cause of high population growth rate in SA, although it began to decrease in the recent years. In 2001 it was 26.2/1000 decreased to 19.9/1000 in 2012 (World Development Indicators [WDI] April 2014). This is a good indicator that the Saudi Arabia community began to know the advantages of the small family.

Death rate is almost stable, ranging between 3.9/1000 and 3.3/1000 from 2001 to 2012. The main cause is the progress in health services, in addition to what the government introduces for education and healthcare. Death rate always decline earlier than birth rate.

Fertility rate (Fig.5) also declines from 3.8 child/female in 2001 to 2.7 child/female in 2012, which means that there was progress in family planning.

The high growth rate (Fig.4) reflects on the high percentage of young people between 0-14 years to 29.7% in 2012, while the percentage of people aged 15-64 is 67.4% in the same year and old aged are 2.9%. The percentage of employment is 35.8% and the percentage of non-employees is 64.2%. This leads to an increase in the dependency ratio (Central Department of Statistics and Information 2013 KSA), especially the unemployment between Saudi citizens 11.7% and the general rate 5.6% in 2013. So the percentage of Saudi citizens is double the non-Saudi in unemployment.

The rapid growth of Saudi Arabia's population makes a big burden on the budget of MOH, to be able to provide health services to every part of the wide area of the Kingdom. The large GDP of KSA solves this problem.

Life Expectancy:-

Another measure reflects the relation between development and healthcare. In societies where people enjoy sufficient access to food, public health measures and good medical care, life expectancies are often high over 75 years for males and 79 for females, as in advanced countries. While in the poorest countries as in Africa most people cannot expect to live beyond 50 years.

Life expectancy is the best measurement for economic and social development. In KSA, it is an average like that of developed first world. It increased from 68 years (average) in 1995 to 71.4 years in 2003 and reached 72.5 years for males and 74.7 for females in 2013 (Central of Statistics and Information, 2013). Life expectancy is an index that people enjoy a high standard of healthcare and in all health services, which kingdom of Saudi Arabia introduces for free to every person who lives on its land. It also provides all these

health services to the pilgrims who go every year to the holy places, and their number ranges from 2-3 million.

This indicates that KSA spends a lot of investments in healthcare and widespread health insurance in order to make everybody within its borders healthy, happy, and productive.

Infant Mortality Rate:-

Infants and children under 5 years old are the most vulnerable members of any society, because their immunological systems are not as well developed. This is another measure of economic development. In developed countries less than 10/1000 infants die before their first birthday, while in developing countries the ratio is more than 100/1000, because of poor prenatal care, malnutrition and infectious diseases. When there are economic downturns as droughts or disruption of food supplies as during wars, they are the first to die.

In Saudi Arabia the infant mortality rate was 15.9 (Central Department of Statistics and Information). It is a relatively low ratio, but did not reach that rate in advanced countries. In 1960 the rate was 250/1000, which means that a quarter of the babies died before their first birthday. The rate of infant mortality continues to decrease after that, in 1995 (1405) it was 52 per 1000 and decrease also to reach 21 per 1000 in 2009, until it reached the present rate (15.9).

This is because of the Saudi health system, which provides all possibilities to avoid epidemic diseases like measles, tuberculosis, vaccination and the curative programs of pregnant women, which were placed three decades ago. These programs were comprehensive for treating and protecting against infant and pregnancy diseases.

In the International Health Day (April 2003), Saudi physicians concentrated on the importance of healthy food, pure drinking water, and a good healthy environment for child growth (Shobokshi, 2003), in addition to maternal care, natural lactation and protecting from air pollution.

The health system of childhood care reflects on growth of healthy people (youth) contribute in sustainable development.

The healthy environment for children is the responsibility of every person in the society as a whole. It is one of the priorities in good health planning and for drawing the future strategies for the country. All institutes in the society must co-operate to achieve good healthy childhoods.

Access to doctors and healthcare providers:-

The Saudi healthcare system is challenged by the shortage of local healthcare professionals, such as

physicians, nurses and pharmacists. The majority of healthcare personnel are expatriates and this leads to a high rate of turnover and instability in the workforce. According to the MOH, the total health workforce including all other sectors is about 248,000 (2009), more than half of them work in the MOH, Saudi constitute 38% of the total workforce. 23.1% of them are physicians and 32.3% are nurses. In the MOH Saudis constitute about 54% of workforce (Physicians 22.6% and 50.3% from nurses).

The rates of physicians and nurses in Saudi Arabia are 16 and 36 respectively per 10,000 person (Health statistical yearbook 4, Riyadh, 2009), lower than in other countries such as Bahrain (30 and 58 per 10,000), Kuwait (18 and 37 per 10,000), Japan (12 and 95 per 10,000), Canada (19 and 100 per 10,000), France (37 and 81 per 10,000) and USA (27 and 98 per 10,000).

The ability to formulate and apply practical strategies to retain and attract more Saudis into medical and healthcare professions, particularly nursing, is a clear priority for effective reform of the Saudi healthcare system. Many efforts have been taken by the government to teach and train Saudis for healthcare professional jobs. Since 1958 a number of medical, nursing and health schools have been opened to meet this goal. The number of colleges of medicine, health and nursing institutes is 77.

In Saudi Arabia, the MOH is the major government provider and financer of healthcare services, with a total of 244 hospitals (33,277 beds) and 2073 primary health center (PHC). These services comprise 60% of the total health services in Saudi Arabia. The other government bodies include referral hospitals as King Faisal specialist hospital, army forces medical services and ARAMCO hospitals, etc. (Eastern Mediterranean Health Journal (2011). Each of these agencies provides services to a defined population, usually employees and their dependants. The number of these hospitals is 39 with a capacity of 10,822 beds. The private sector also contributes to the delivery of health care services, especially in cities and large towns with total 125 hospital (11,833 beds) and 2218 dispensaries and clinics.

The MOH provides healthcare services at 3 levels; primary, secondary and tertiary (39). The last level is for specialist to treat serious conditions.

The previous health measures show that health is a very important index in life and luxury of people in any country, and reflected on the social and economic development now and in the future.

Results:-

1. The importance of health as a measure of development.

2. Sustainable development is necessary for all countries to develop, its human resources because many natural resources are exposed to depletion.
3. GDP reflects on health care and luxury of the society as in KSA. 6.2% of it spends on health care.
4. The economy of Saudi Arabia depends mostly on the revenues of oil, as it's the largest producer and exporter.
5. Education is associated with health of people as in KSA.
6. Of the important measures of health care population, their number, distribution and developing birth rates and death rates. This makes KSA an advanced country in some aspects of population.
7. Infant mortality is decreasing in KSA as a result of improvement of health services.
8. Most of the workforces in health services in KSA are foreigners which is a big problem. The government established faculties and schools for medicine and nurses.
9. The level of diet in SA is high and many people obtain more than they need, so they suffer from obesity.
10. KSA is like advanced countries in many health measures as it always tries to improve it.

References:

1. Aldossary, A., While A. & Barriball, I.,(2011) Health Care and Nursing in SA., International Nursing Review Vol. 17 No. 10.
2. Al Magrabi, K., Exploratory Socio-Spatial Distribution of Overweight and Obesity among Primary School Girls in Jeddah Governorate, KSA, Journal of American Science, 2012;8(5)
3. Central Department of Statistics and Information, Saudi Arabia, <http://www.edsigov.sa/english>, June 2011.
4. Development Report 2010, New York, UN, 2010.
5. Gallagher E.B., Modernization and Health Reform in Saudi Arabia, in Twaddle, AC. Health Care Reform Around The World, London, 2002.
6. Health Statistical Year Book, Riyadh, Saudi Arabia, Ministry of Health, 2009.
7. Statistical Year Book, Riyadh, Saudi Arabia, 2009.
8. World Population 2002, UN, New York, 2002.
9. Shobokshi, (2003) Al Yam Journal, April, Issue #10888.
10. Stutz, F.P., & Warf, B., The World Economy, Prentice Hall, Boston, New York, 2012.

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