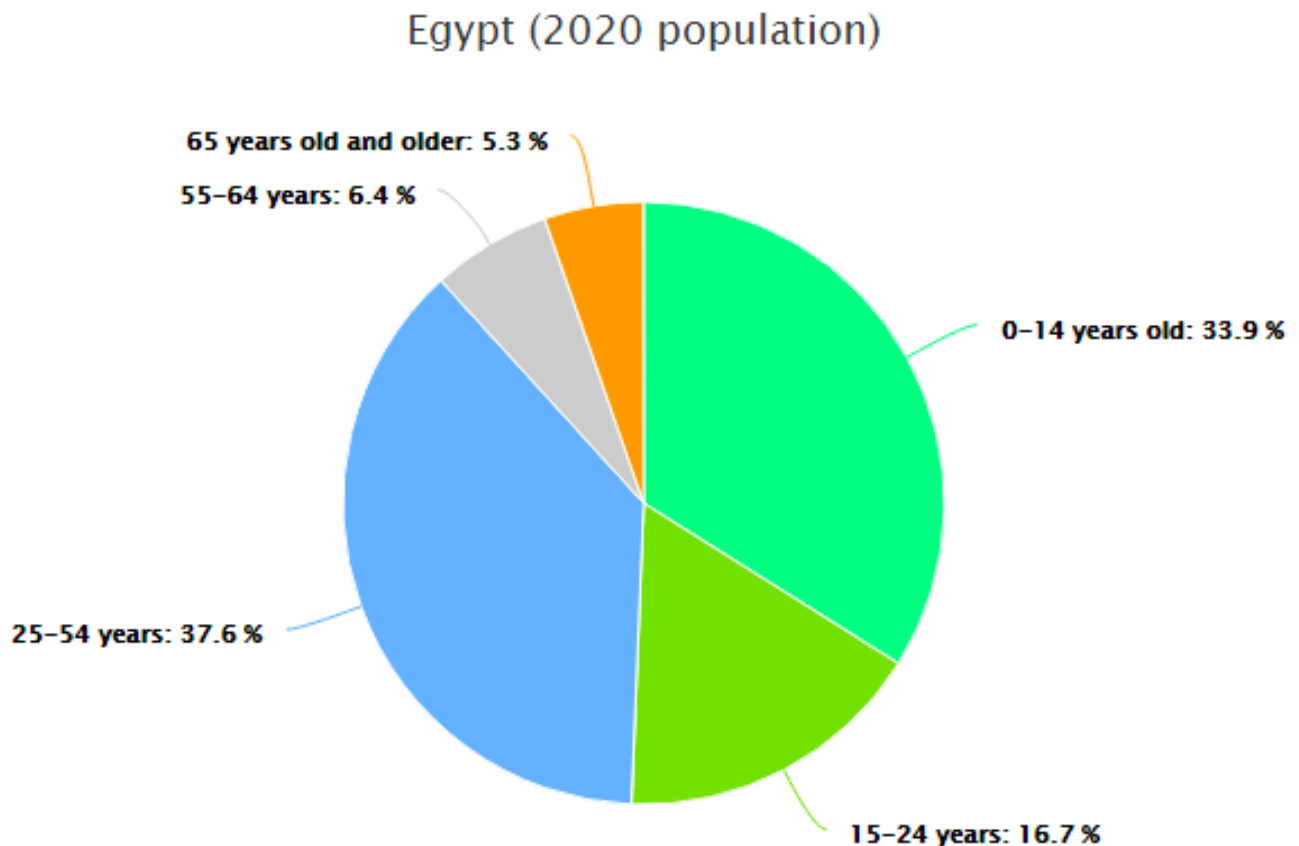


Environmental Analysis

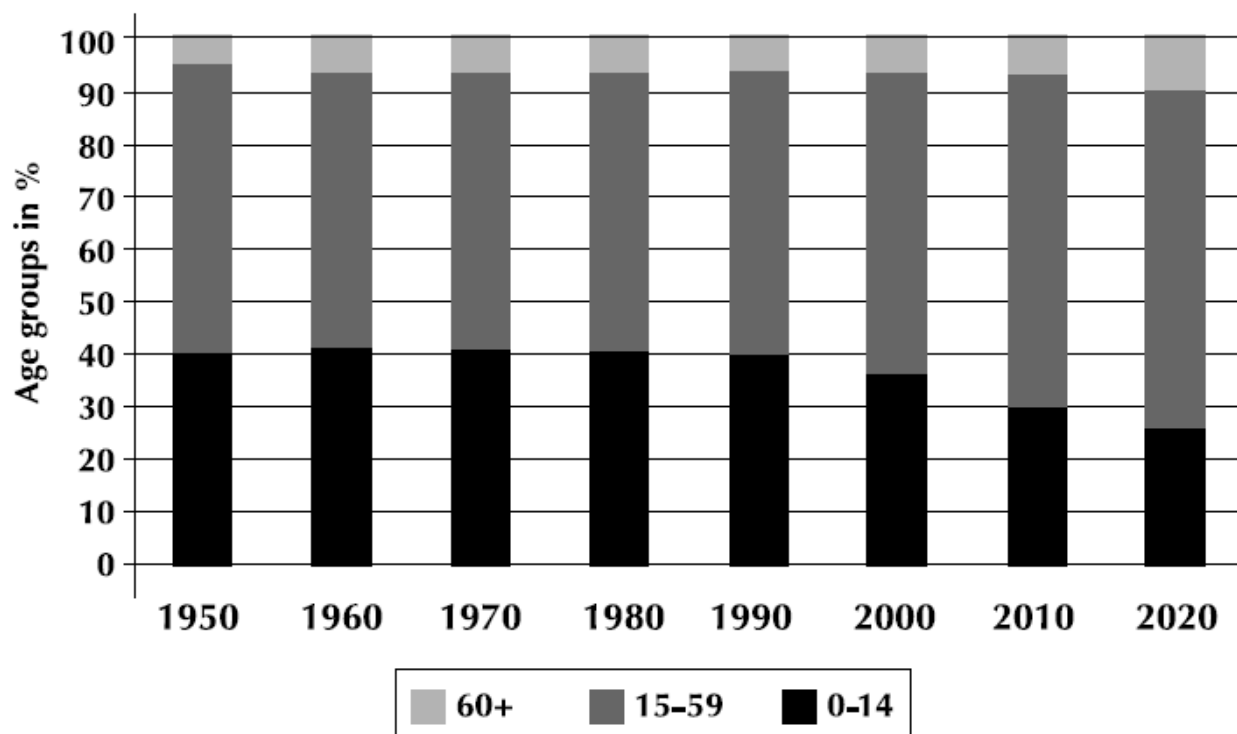
1) Demographic Trends:

Age Groups:

- The current population of Egypt is **100,852,847** as of Friday, September 27, 2019, based on Worldometers elaboration of the latest United Nations data [1].
- According to Worldometers elaboration of the latest United Nations data, the population of Egyptians older than 65 years account for **5.3%** of the total Egyptian population in Egypt [2].
- It's observed that the population of elderly people (65 years or plus) is substantially increasing [3].



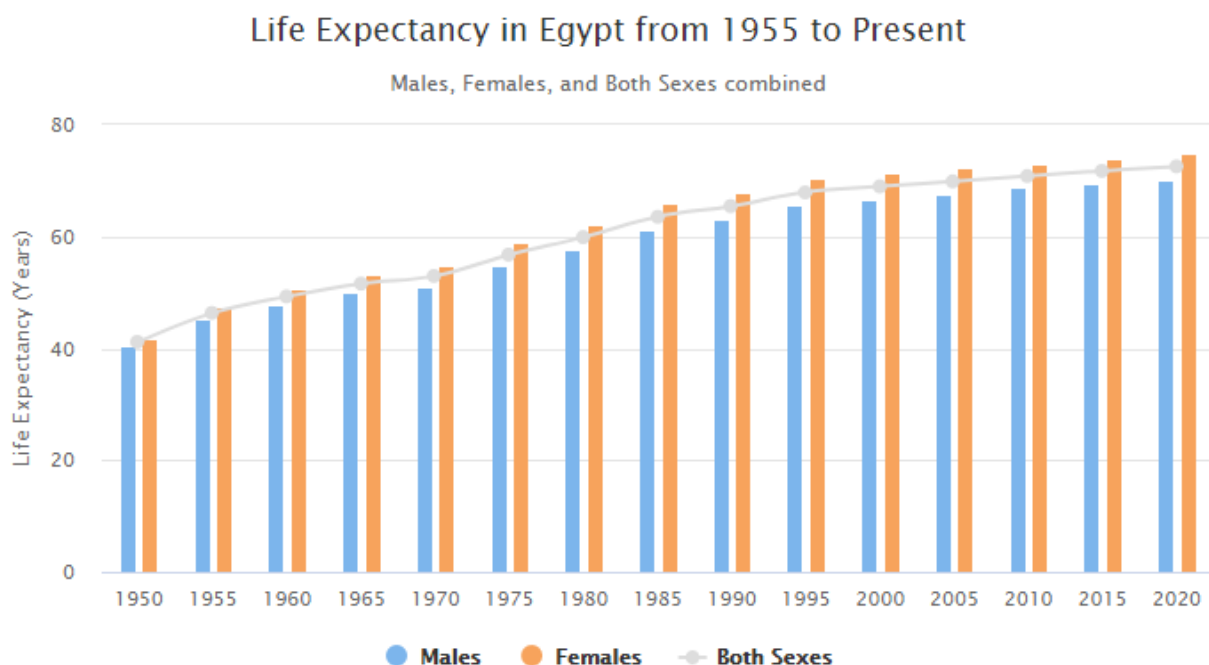
Age Group	Males	Male %	Females	Female %	Total Age Group Population	Age Group's share of total population
0-14	17,869,409	51.48%	16,843,470	48.52%	34,712,879	33.92%
15-24	8,787,018	51.33%	8,330,669	48.67%	17,117,687	16.73%
25-54	19,340,871	50.30%	19,113,850	49.70%	38,454,721	37.58%
55-64	3,255,020	49.37%	3,337,952	50.63%	6,592,972	6.44%
65+	2,450,544	44.91%	3,005,600	55.09%	5,456,144	5.33%



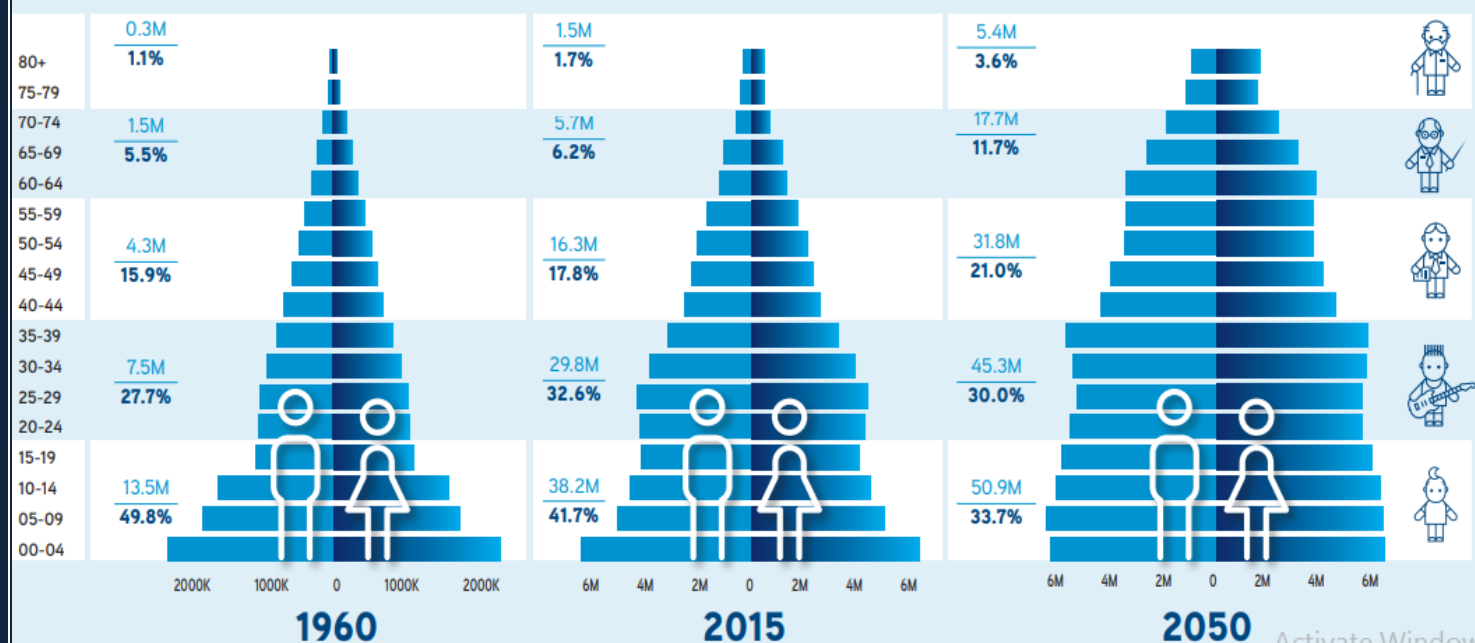
Life Expectancy at Birth:

- The life expectancy at birth increased drastically as illustrated in the graph below [4].
- According to Colliers International, These changes will lead to increasing requirement of a larger number of long term care (LTC) facilities. The minimum requirement for LTC beds in developed countries is in the range of 4-6 beds per 1,000 population above 65 years (in some countries, it is as high

as 12 to 15 beds). Applying these benchmarks, Egypt currently needs around 19,000 beds dedicated for LTC, this is expected to reach almost 64,000 LTC beds by 2050 [5].



Changing Population Profile



Activate Window

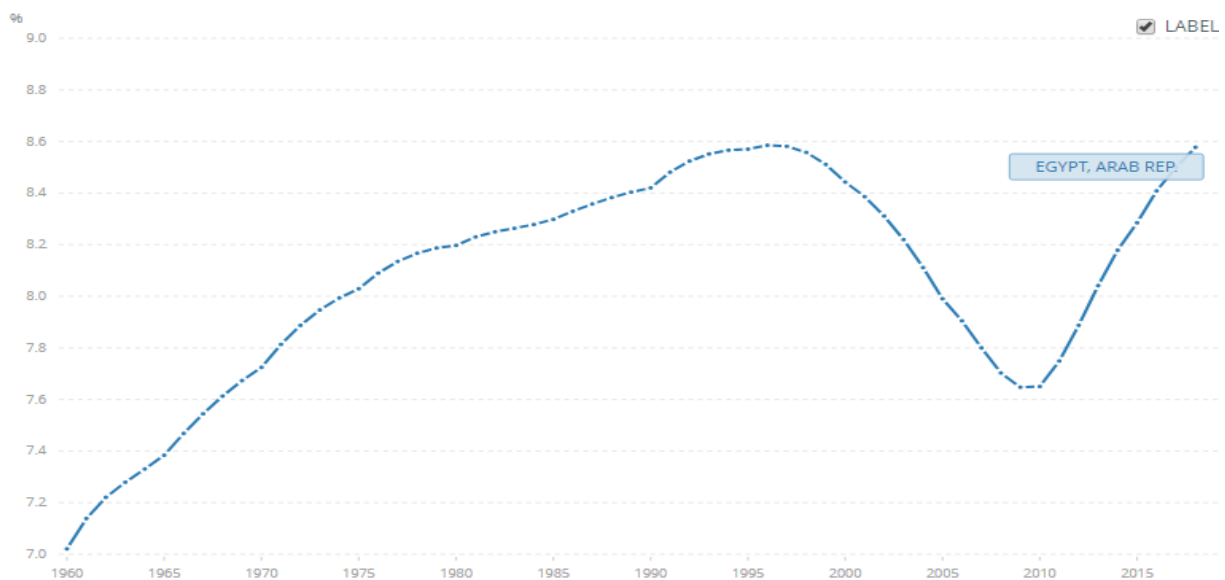
ADL Limitations:

- Activities of daily living (ADLs) are activities related to personal care. They include bathing or showering, dressing, getting in and out of bed or a chair, walking, using the toilet, and eating. If a sample person has difficulty performing an activity by himself/herself and without special equipment, or does not perform the activity at all because of health problems, the person is deemed to have a limitation in that activity.
- The percentage of people with at least one ADL limitation is **8.27 %** in 2001 [6]. Then, apply it on the present population of elderly people in Egypt (5,456,144). Consequently, there are about **451,223** people with at least one ADL limitation.

2) Socio-Cultural Influences:

Dependency Ratio:

- An increasing number of older people who need support, combined with a decreasing number of younger people who can provide it, will affect the current balance of the social security system in the country.
- Age dependency ratio, old, is the ratio of older dependents (people older than 64) to the working-age population (those ages 15-64) which equals **8.577** in 2015. Data are shown as the proportion of dependents per 100 working-age population [7].



- Such abstract figures, however, do not provide information about the real burden experienced by the people. Two important factors contribute to this burden: the degree of functional limitations among the aged, and the social situation of the families. If older people are able to care for themselves or work, the families will have to provide only minimal assistance. Unequal distribution of income will determine the families' capacity, and potentially willingness, to support older members. Financial support through a pension, if available, may ease the families' burden.

Urbanization & Modernization:

- Urbanization and industrialization produce social changes that begin to undermine the traditional family support system. Today, people in Cairo, Alexandria, and other bigger cities in Egypt live in nuclear families.
- The modernization of Egyptian society has, apparently, a two-sided effect. On the one hand increased life expectancy indicates an improved standard of living; on the other hand, the conditions of modern urban life reduce the availability of support for older persons while the need for care begins to grow.
- These socio-demographic changes interact with traditional Egyptian culture. Cultures, however, are not static. Although rooted in traditions, they are also an arena of conflicting ideas and practices. This dynamism enables them to develop new norms and values in response to new situations. An increasing number of care-dependent older persons is such a new phenomenon, necessitating a process of social and cultural adaptation.

3) Technological Trends:

Personal VS Technological Assistance:

- Personal assistance and technological assistance are the 2 basic modes of coping with limitations that interfere with the ability to complete activities of daily living (ADLs) and other tasks. Personal assistance refers to help that disabled persons receive from others, such as a spouse, child, friend, or paid caregiver. Help from another person does not enable people to function more independently, but it may reduce the difficulty experienced when attempting

to perform a given task. Technological assistance refers to the use of equipment (wheelchairs, canes, walkers, raised toilet seats) to allow performance of daily activities. Equipment usually is provided to enable persons with difficulty performing their ADLs to function more independently than they would otherwise be able to do.

- Based on a study performed [8], it appeared that among people with ADL limitations, multivariate models showed a strong and consistent relation between technological assistance and personal assistance, whereby use of equipment was associated with fewer hours of help.

Types of Technologies:

- There has been a surge in the use of technologies in the elderly service industry to compensate some issues such as lack of trained staff and inefficient monitoring. However, these technologies such as Inertial Motion Sensors (IMS), RFID, Cameras and Wifi technologies are not prevalent in Egypt although it's extremely needed due to the evident demand gap showcased throughout the data mentioned in this analysis.

4) Macroeconomic Impacts:

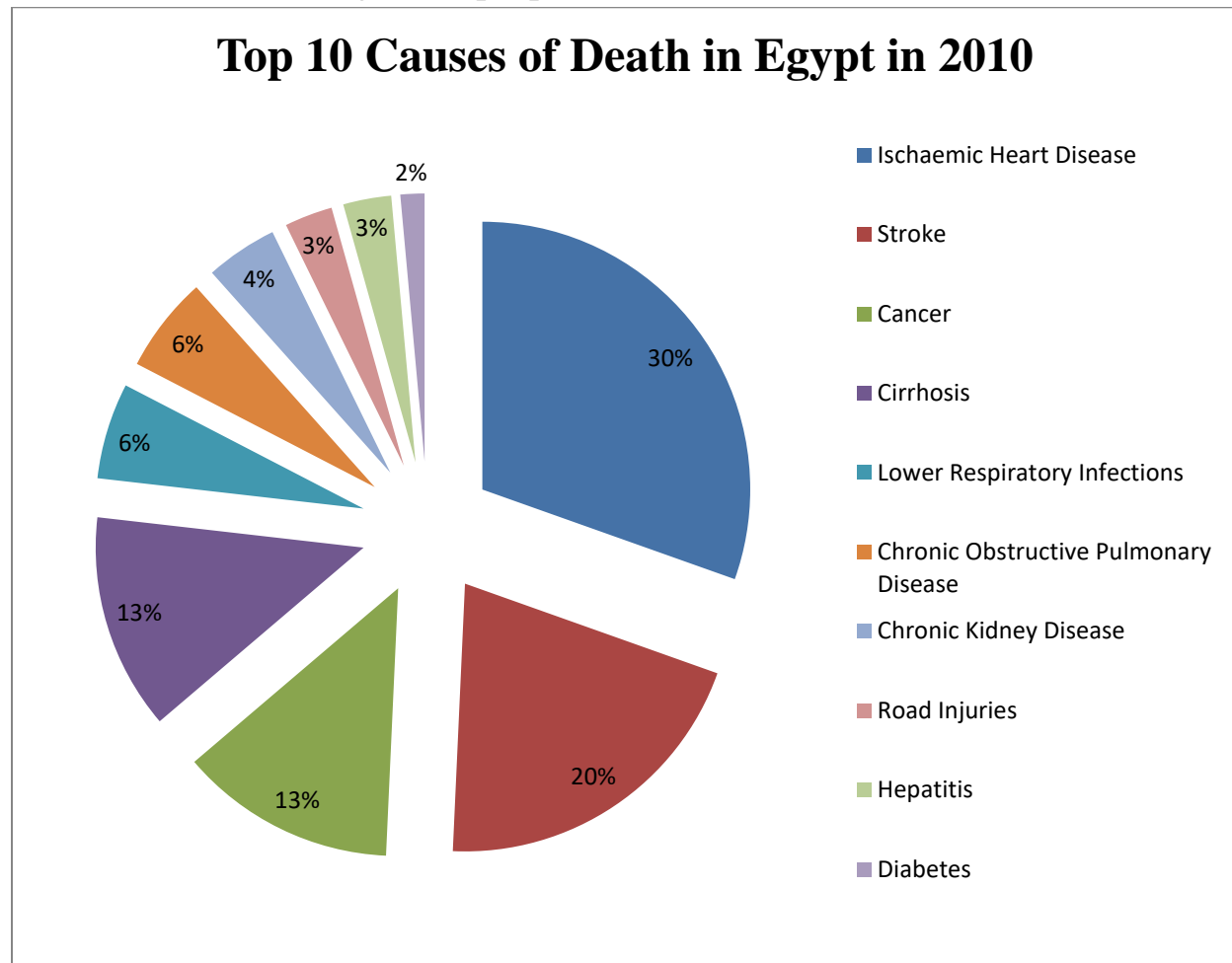
Economic Obstacles:

- Economic difficulties may prevent low-income families from providing assistance to their parents despite their desire to fulfill traditional duty. Consequently, it will affect the type of assistance provided to the elderly members in these families.
- People from middle-income groups have developed a different life style. These people have left the parental household after marriage and live in smaller-sized flats where it is difficult to accommodate older family members who need care. This is intensified by the fact that better-educated women tend to seek paid employment, which deprives older persons of the daughter or daughter-in-law who traditionally cared for them.

5) Governmental-Political Issues:

Health Agendas in Egypt:

- Health and nursing care for older persons is not a top priority in developing countries like Egypt. Health agendas typically focus on maternal and child health and the prevention of infectious diseases [9].
- Based on the Colliers International review, the top 10 death causes in Egypt in 2010 are occurring to old people with low healthcare services [5].



Registered Nursing Homes:


- The official statistics are unlikely to record the complete number of available facilities. For example, according to the below-mentioned list of the Ministry of Social Affairs, 62 of the 113 nursing homes for all Egypt were registered in Greater Cairo. However, another study [10] identified thirty-one nursing

homes in addition to these officially registered institutions, using personal contacts and an unofficial list obtained from a nursing home of the Catholic Church. All these homes worked under the umbrella of a local church or mosque and were therefore not registered as independent organizations with the Ministry of Social Affairs. This suggests that there may be even more nursing homes which cannot be identified through official sources. To complete the picture, some geriatric medical units in hospitals should be added to this figure. Although intended as temporary treatment facilities, they may become, in practice, the permanent residence of older persons. They fulfill the same function as nursing homes, but also provide medical treatment.

Year	Number of institutions	Available places (total)	Available places per institution (average)	Reference
1978	28	No available numbers		Rugh 1981
1979	33	No available numbers		Fadel-Girgis 1980
1983	34	2000	58.8	Fadel-Girgis 1983
1986	36	No available numbers		Abd el Ghany 1986
1991	49	2191	44.7	Azer and Afifi 1992
1991	51	2500	49.0	Soliman et al. 1995
1999	65	2388	36.7	CAPMAS 2003 ^a
2002	77	No available numbers		SIS 2003
2004	91	3291	36.0	Wahba 2004
2005	113	3714	32.9	Ministry of Social Affairs 2005 ^b
2008	130	4000	30.8	Egyptian Cabinet 2008

- The critical question, however, is whether the currently available facilities are sufficient. As computed in previous section, there are about **451,223** people with at least one ADL limitation. Even if the real number of homes exceeds the official figures, it is unlikely that the current facilities meet the existing need.

6) Conclusion:

 Judging from the environmental scanning presented, some observations and insights are considered for efficiently entering the industry of elderly services:

- Awareness Campaigns should be highly considered in this industry.
- Marketing Research Techniques should be applied to investigate the needs, supplies and the current condition of this industry in Egypt.
- Increase in portable products to be used in homes to compensate the need of enrolling in nursing homes.
- Monitoring systems for elderly people should be included and considered in this industry.
- Technological assistance should substantially interfere with elderly personal services.
- Cost-effective products are demanded due to economic difficulties.
- Involving more stakeholders is a highly recommended strategy.
- Considering unprivileged places in Egypt should be targeted.
- Governmental interferences to modify current health agendas would be highly effective.
- Prioritizing the elderly services based on the population changes.

7) References:

1. <https://www.worldometers.info/world-population/egypt-population/>
2. <https://www.worldometers.info/demographics/egypt-demographics/#age-structure>
3. Zaghloul, S. 1991. Aging Population in Egypt.
4. <https://www.worldometers.info/demographics/egypt-demographics/#life-exp>
5. Colliers International Review, Pulse 7th Edition, 2017.
6. Nandakumar et al (2001).
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8. Helen Hoenig, MD, Donald H. Taylor, Jr, PhD, and Frank A. Sloan, PhD. Does Assistive Technology Substitute for Personal Assistance Among the Disabled Elderly.
9. El-Katsha and Watts (2002); Khattab et al. (1999)
10. Growing Old in Egypt: the supply and demand of care for older persons. Thomas Boggatz