

## **Senior centers in the current context in Romania**

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*(Published online 14 March 2017)*

### **Abstract**

The paper has the purpose to draw attention at population changes, at the fact that the age pyramid is going to become reversed and that architects must be aware of this change and be able to adapt at designing senior center facilities and retirement communities. In this paper I've made an analysis concerning the number of beds *per* old people and I've reached the conclusion that Romania has a poor social system regarding the care for old people, there are not enough beds in nursing homes, in hospitals and we don't have enough specialists that can provide home care assistance. After a long experience in architecture and an intense study regarding nursing homes and senior centers, I proposed a functional scheme in order for a senior center to provide a comfortable elderly period for people who need specialized medical care or a new residential home. We need to pay attention as architects to all this changes, we need to adapt senior centers functions in order for old people to keep their independency and feel comfortable if they need permanent medical supervision. Old age is not a disease is a state that must be accepted by society. Old people should not experience loneliness, they should stay with other people and be part of social and cultural activities. As architects we have the possibility to design senior centers that can allow people to continue their life in a proper and easy way.

**Keywords:** senior center; specialized medical care; health care; functional scheme; adaptation.

### **Rezumat**

Lucrarea are scopul de a atrage atenția asupra modificărilor privind evoluția piramidei vârstelor, populația planetei îmbătrânește, iar arhitecții trebuie să fie conștienți de schimbare și capabili să adapteze centrele pentru seniori prin introducerea de noi funcțiuni. În urma unui studiu a situației din 11 țări, am ajuns la concluzia că în România sistem social privind vârstnicii este foarte slab dezvoltat, iar față de alte națiuni care oferă îngrijire în spitale, centre pentru seniori și comunități de pensionari, în timp ce statul român ignoră în continuare existența oamenilor în vârstă. Având o experiență considerabilă în domeniul proiectării și studiind centrele pentru seniori, am propus o schema funcțională capabilă să răspundă nevoilor seniorilor indiferent dacă aceștia au nevoie de o nouă locuință pentru bătrânețe sau îngrijire medicală permanentă. Ca arhitecți, trebuie să fim conștienți că odată cu îmbătrânirea populației globului, modul de a proiecta o casă sau un centru pentru seniori trebuie să se adapteze nevoilor acestora astfel încât ei să-și poată păstra independența sau să se simtă măcar confortabil, în cazul în care au nevoie de îngrijire medicală permanentă. Bătrânețea nu este o boală, este o stare și trebuie acceptată de către societate. Perioada bătrâneții poate fi petrecută într-un mod plăcut, alături de oameni de aceeași vârstă și cu un program de activități sociale vast, alături de un program de supraveghere medical de bază sau specializat. Unul dintre cei mai mari dușmani ai bătrâneții este singurătatea, fenomen care acutizează boliile.

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Arhitecții au posibilitatea de a proiecta centre pentru seniori care să devină cămine și în care oamenii să simtă ca fac parte dintr-o familie.

## 1.Introduction

We are witnessing global megatrends, before which we must adapt and also come up with solutions and answers. The main phenomenon refers to globalization, a trend observed worldwide with a strong mark on social life, which leads to global solutions that must be adapted local, in order for all citizens to have a comfortable living and enjoy their life. Naturally, this concept is utopian, given that among of the world and all there still huge differences that exist at all levels such as: development (there are countries from all three categories; high developed, medium developed and also third world countries), technology, trends regarding the demographic ageing or demographic rejuvenation, economy, industry, form of governance.

Birth rate, mortality, life expectancy are some absolutely decisive factors in determining living standards and the development of a country. These factors, along with the economical power can establish trends in architectural programmes, used materials, necessary functions in order for the population to feel satisfied.

Worldwide ageing phenomenon can not be stopped. This is the result of decreasing mortality as a result of development of medicine and most significant declining fertility. Of course, the result it's easy to guess, reduction of children and an increase among people from the working sector and older people.

In 2013, the result was the following: the category of people over 60 increased from 9,2% in 1990 to 11,7% in 2013 and it's expected to reach 21,1% in 2050. So the numbers will change, in 2013 there were 841 million people over 60 and in 2050 they will reach 2 billion, or more specific older people will surpass children in 2047 [[www.populationinstitute.org](http://www.populationinstitute.org)].

Now, we have two thirds of the entire world old population in developed countries, but due to the fact that the number of old people increases faster in undeveloped areas it is expected that by 2050, 8 in 10 old people will live in less developed areas.

Global ageing phenomenon has consequences in all areas: economy, social activities, architecture, politics. Ageing population also requires other working conditions, other schedule other functions in order to provide them comfortable living.

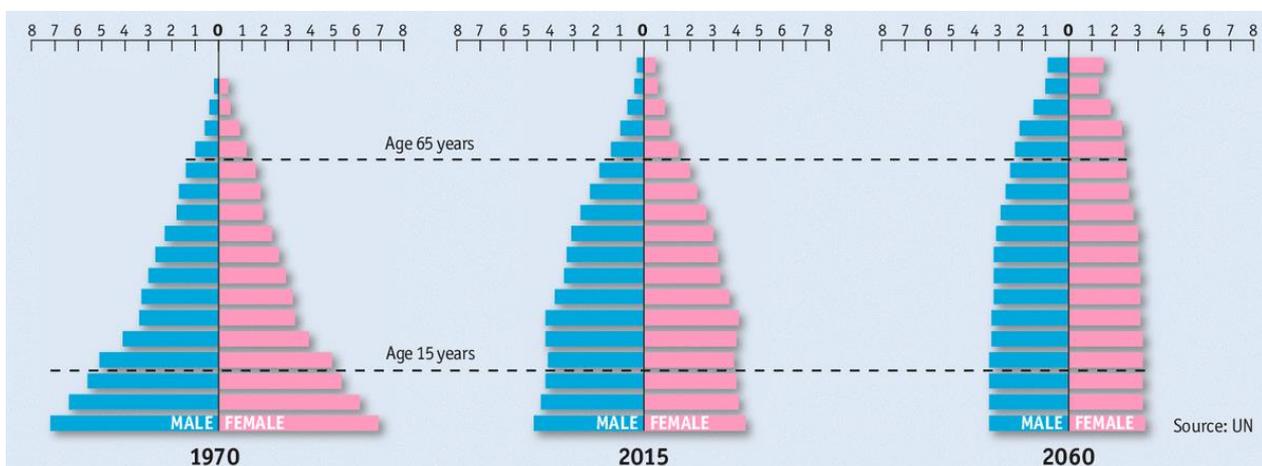


Fig. 1. Age pyramid evolution

A positive fact is that older people are able to have an independent live in most of the regions, alone or with their partner because they have financial independence and are also able to help their children.

Due to the fact that most of the old population can afford to live without any help, they try to make their life easier and their old age as pleasant as it gets. One of the most common solution in developed countries is to move in a community for old people, communities that provide social activities, a comfortable life, gatherings, sport activities and also affordable medical services and live in a house for old people, different as function from nursing home.

## 2. Definition of senior centers

Senior centers are social institutions organised as collective living for elderly population. In Europe we have the following equivalent terms : *maison de retraite* in France, *Zentren für ältere Menschen/ seniorenheim* in Germany. The term replaces the term of bughouse, word which inherit a pejorative connotation. In France the term *maison de retraite* is actually translated as retirement house, notion which confirms that most old people are not working anymore and they withdraw in a hospital or a senior center facility from the active world.

Due to the fact that the society is more concern about old people is attempted a detachment of the semantic meaning of the term initial characteristics associated with sickness, addictions, permanent health care, continuous surveillance. In the last years it appeared a new age category due to the fact that people live longer, the fourth age, the group of people that need medical care and constant surveillance which leads to de-medicalization for people in the third age category.

## 3. Short history of nursing homes

Since ancient times the society felt the need to protect their seniors citizens, after the society had a form of organisation, but the first tangible evidence in this regard is from the Middle Ages. At first, the primary form of isolation was made from sanitary reasons, only sick people or those who where affected by epidemic. The most notoriously epidemic, bubonic plague, took place between 541-542 in Constantinople. In the years 541 and 542, bubonic plague struck Constantinople, and over 40% of the population in city was killed (about 10 thousand people a day). Spreading throughout the Mediterranean, balance estimated death toll was about 25 million. In the next 800 years nothing awful happend, until the middle of XIV century, when bubonic plague of Justinian returned, killing a quarter of Europe population and around 137 million people worldwide.



Fig. 2 Franz Hals museum, initially a nursing home

Due to these conditions, since the Middle Ages, after the number of monasteries and churches increased, sick people received shelter in here, in order to protect the community. The first isolated building for people who suffered of epidemic were called „lazarets”. The lazarette was either isolated or connected to the monastery building. In time, all people who had medical problems or were helpless gathered in these facilities. Since its origins nursing homes for old people were associated with sick people and a non-independent life style. This in the period when nursing homes become health care facilities, attribute attached to nursing homes until the modern era. In the 17 century, along with shelters for the sick the old and the single, it appears the first facilities which are dedicated to old people and not for the ill ones.

One of the first senior centers is the building that today is used as a museum, but was initially used as a nursing house for men. Each room was occupied by two men. In order to receive a room, a man had to have over 60, to be a citizen of Haarlem and also to be single or a widower. Also for internment he had to bring a bed, a chair, a pillow, 3 blankets, six shirts and linens. They had a schedule, for sleeping and rules to obey. The nursing home function until 1810, when it was transformed in a foster care.

Since the XIX century the number of nursing houses starts to increase, but it has to face a problem: the reluctance of taking old people from their natural habitat, due to the fact that their children should be responsible for the elderly period. Authorities considered that they are not responsible for old people who need health care and surveillance, this is a family responsibility, but on the other hand authorities had to face the fact that in some conditions, imminent death, serious health problems, is their responsibility to integrate health care for the old in the existent structure.

At the end of the century many specialized nursing houses appear and this means changes in the medical system, law system, educational system and a very specific age distribution. Only in the XX century the word changes from asylum to retirement house and socio-medical institution and also a change in their utility, not is not just for the poor is for the sick and for the old. Since 1950 nursing houses become more and more specialized, having a medical staff, trained personnel and since 1970 they also need medical assistants, therapists, physiotherapists in order to offer a proper health care program. This leads to medicalization of nursing houses.

Nowadays a new concept appears: psycho-geriatric. It is a multidisciplinary concept that aims to heal, soothe and support the elderly who suffer from mental disorders or psychological difficulties. This approach is based primarily on the existence of a network of institutions with medical and social features. Psycho-geriatric specialization institutional addresses several different ways. One of the directions could be that of the old nursing homes leading to assist residents and psychiatric conditions in their change. The latest, however, are modern concepts of architecture, caught between the size of the medical staff and permanent residency.

#### **4. Facilities for elderly people in the world**

In developed countries when you are old you have two main possibilities to spend your old age period based on your condition and financial possibilities. On one side there are the famous senior centers, facilities in which more senior citizens live together, in their own room or with their life partner, with a friend or single, and they have common rooms for spending their free time where they have recreational activities, cultural activities, sport activities, health care services, they have facilities for meals and gatherings.

On the other hand, if they do not need health care and they prefer to live alone, they can choose to live in retirement community, where the houses are adapted to their needs, they live separately in

their own houses, but all of their neighbors have the same age so they can easily make need friends. Also, this community provides different public spaces where people can spend their free time. The trend of senior centers is increasing every year, and in some countries such as Iceland, Switzerland, the Netherlands, Sweden and United States of America, with the percentage of 0,7-1,1 %, but there are also countries in which the rate is under 0, 5% per year, such as Italy, UK and Japan. Sweden is the country with the longest tradition in nursing facilities. From all this countries: Switzerland, Denmark, USA, Japan, France, Italy, Sweden, UK, Iceland, Netherlands, Romania, the one with the fastest ageing process is Japan, where it is expected that by 2025, the population over 65 will reach 60%, followed by Sweden with 52% and Italy with 50%. This is why it is important for nursing homes to adapt to the market trends and to adjust their functions.

Making a comparison between all these countries will reveal the importance of nursing homes in Romania and their need to adjust to the market needs and population trends.

USA, one of the most famous countries that promotes retirement villages and houses, also has around 21 000 nursing homes, which would translate in 1,5 million old people who live in a nursing facility (53 beds/1000 people). There are two types of residents: who stay for a short amount of time, after they left the hospital and are in need for rehabilitation and recovery and those who stay there for the rest of their life. Around 14 000 nursing homes are occupied with people who suffer from memory problems, decision making, lack of orientation and also cognitively impaired. Also, due to the frequency of some diseases, around 10% from nursing institutions already have specialized services and special care units for people who need physical care, mental care (Alzheimer, Parkinson), sub-acute care.

In Japan, the percentage is different there are just 12 beds to 1000 people, around 2800 buildings; the facility similar with a nursing house is called special homes for the aged. In Japan, around 6% of elderly people live in three types of facilities for them: geriatric hospitals (2/3 entire old people population), health facilities for the elderly (more than 25%) and residential homes (less than 10%). 1/3 from old people who live in hospitals, stay there more than a year, due to the fact that they do not have to pay the 50% co-payment tax. In Iceland, around 13% of elderly people live in nursing homes. Like in other parts, nursing homes have two levels: the first one is a skilled nursing facility (69beds/1000 people) and unskilled nursing homes (41/1000 elderly people). Unskilled nursing home means that the humans have their independency and they live alone in a house that is transformed for the residents age. One of the main problems in Iceland is maldistribution, they have an increased number of nursing facilities at the countryside and a small number of facilities in the capital city, Reykjavik. In order to be accepted to a nursing house there is a geriatric team who make you an exam and establish the level of your need, before this they could accept anyone as residents.

Sweden is a country with a high percentage of old people, but they have a low number of beds 21/1000. Since 1992 authorities helped old people that why beds are used efficiently and sick old people are being transferred from hospitals in nursing homes; they receive rehabilitation or short time care services in hospice care facilities.

Denmark is one of the countries where nursing homes were massively built in 1950-1960, but everything frozen in 1987 when the public authorities decided to adopt "Ageing Package" a program that promotes self care and autonomy, this means that a person in need has 24 h/ day, free of charge somebody by its side. They used to have 48 beds/1000 people, but the old nursing homes are closing with a rate of 10%/year. Of course they have modern nursing homes, with a single room, bathroom facility and a hallway. In order to be admitted an assessment is absolutely necessary.

**In Netherlands** they have 26 beds/1000 people. People who need nursing homes are divided: around 50% need long term care, 40% need rehabilitation services, 5% are in a terminal phase and the last 5 % require special services due to the fact that they are connected to medical equipment.

**In Dutch** nursing homes all rehabilitative services include: physical and physiotherapist therapy, occupational and speech therapy, activity therapy. The average stay in here is 1,4 years.

**In UK** a large number of nursing homes were made in 1980 from financial reasons, but in the present the need is more important than the financial situation. In private nursing homes there are 20 beds/ 1000 and another 15 000 beds hosted by non-profit nursing homes. They reduced the number of beds in hospitals for long time care and at the present there are only 7 beds/1000 for those who have dementia or need geriatric services. The nursing homes in UK do not provide services of physical or occupational therapy services, but in some cases they have respite care. A general practitioner provides medical care.

**In Switzerland** the situation varies due to the fact that in each of the 26 cantons the health care system is different. They have around 70 beds/1000 in nursing homes and around 50 beds/1000 people in geriatric and psychiatric hospitals. Due to the fact that are high, around 50% in the case that the tax is higher than the earnings the state offers help, but due to the fact that home care is growing daily the nursing homes popularity dropped substantially.

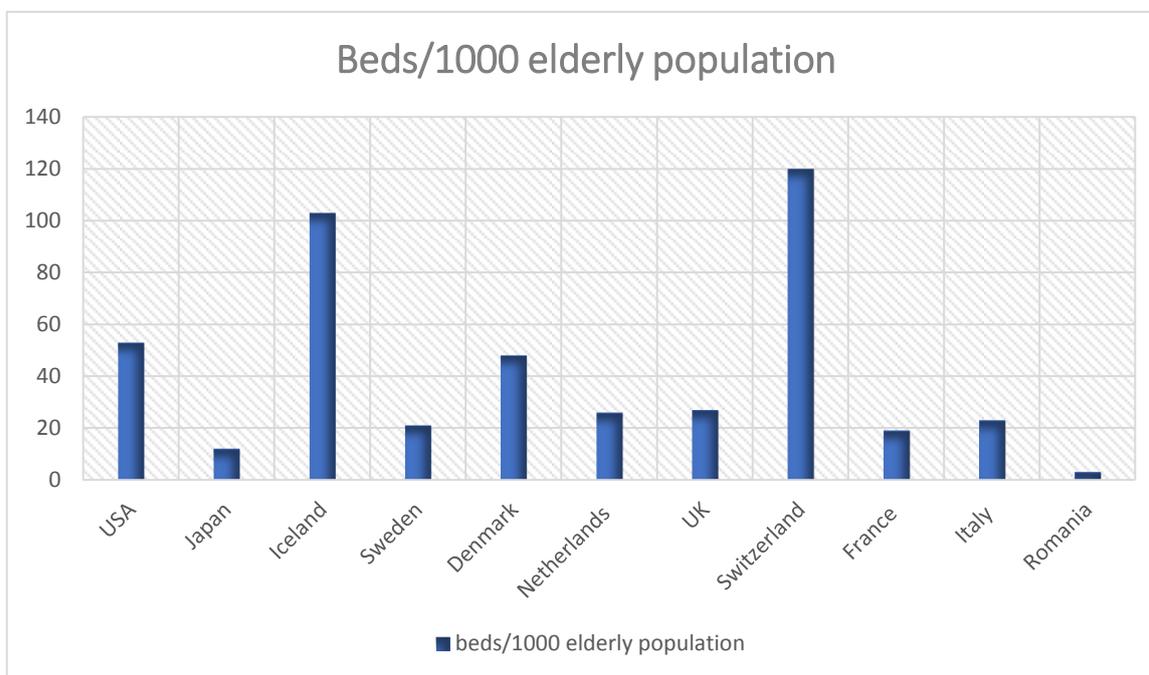
**In France** there are no nursing homes due to the fact that hospitals provide long term care services (8 beds/1000 people) and there is a section of medical care in retirement houses (11beds/1000) so around. Retirement house are part of their social system and medical care is provided from health insurance funds; admission is made based on a medical evaluation. Around 4% of the old people stay in retirement homes or private commercial residences, so the total is around 6% of the elderly population.

**Italy** does not have a uniform policy regarding elderly people, but there are hundreds of local solutions to meet the needs of old senior citizens. They have around 23beds/1000, but in the most developed areas they have 50 beds/1000. Home care is not promoted, due to the fact that elderly people care is the family's responsibility and if the family is not able to provide help senior citizens are admitted to acute care hospitals. Nursing care provide basic services: custodial care and physical therapy. Around 60% of the patients from hospital of intern medicine are over 65 years age and over. In 1992 was elaborated a national health plan through all existing older people homes and sheltered housing should be transformed into skilled nursing homes/senior centers, in addition to the construction of 140 000 new skilled nursing home beds and the implementation of an integrated home care system.

**In Romania** there are serious problems regarding health care for old people. According to the Ministry of Labour, currently in Romania there is a very small number of homes for the elderly, reported to the number of people who live alone or in a family that can not take care of them or simple old people in need for constant care and supervision. According to the Statistical Yearbook for 2014, the year 2013 in Romania were registered 776 739 elderly aged 80 years and over, representing the age group most at risk of dependence, increasing by about 32,000 compared to 2013 and 52,000 compared to 2010. Thus, at the end of 2013, was recorded a total of 229 public residences and private with a total capacity of 9825 beds, of which 103 public residences with 6941 seats and 126 homes associations and foundations, with a capacity of 5075 beds. It is estimated that the number of applications for admission will increase rapidly in the coming years due to the upward evolution of the numbers of elderly people, a result of ill health, socio - economic and family alone can no longer provide care in your home. Based on the age in Romania we have 3 200 000 million elderly people and 9825 beds, which means that we have 3 beds/1000 elderly people. Regarding the architectural function we have three types of facilities: nursing homes transformed from the old retirement houses; assistance and nursing facilities and rehabilitation centers.

Nowadays in Romania the tendency is to adapt the old nursing homes and more private companies are starting to create senior centers. Unfortunately all this facilities are at the beginning and do not have all the functions in order to offer a comfortable stay. Due to the small amount of beds old people in Romania must pay for a bed in private senior center around 200-1000 euro/ month if they need specialized medical care.

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### 5.Senior center architecture for in Romania

In Romania we don't have the typical senior centers, we have the old nursing homes that do not have social activities, cultural activities, physical therapy and physiotherapy, rehabilitation care or orientation activities. Here people usually stay in rooms with 3-6 beds in public nursing homes and 2-4 beds in private nursing homes.

All nursing homes are high medicalized so is not the proper atmosphere for spending your elderly period in case you are not ill. We don't not have retirement communities or houses in order for people with typical age problem and single old people to spend their time in case they are single and start to have difficulties in taking care of their house and themselves.

The nursing homes facilities must become specialized in two categories: for people that need permanent health care and supervision and for those who need basic medical care and need social activities. Loneliness is the main factors in worsen the health.

In order to make people feel comfortable and to have the same feeling as being in a family I developed a functional scheme for a senior center. Of course, the scheme can be adapted based on resident number, dimension, location, medicalization level and other restrictive factors. Accommodation varies from single rooms to apartments.

All services are established based on the resident number and their profile: highly medicalized; impaired people; mental problems; residential system in an open system for people with a high adaptability capacity.

The main functions are :

- Receiving area: entrance with an information office, registration and a small shop

- Administrative area: offices, cloakrooms and toilets for the personnel.

- Accommodation area with bathroom in each room. Every section will have 20-30 people. Each section will have a large room for gatherings, a dining room, a monitoring room and a shared bathroom for people that are not able to bathe themselves. The room surface must have 16-20 sq m if is for one person and 20-25 sq m for two residents.

The room surface is larger than in a hotel room due to the fact that most often this rooms become permanent residences. The rooms must have a covered loggia.

The rooms must a bed, a TV, nightstands, one or two chairs, a closet, refrigerator and in some cases a small kitchen, but in some cases people can must bring from their house furniture and appliances.

The doors don't have threshold and the width opening must have 1,20 m for mobile beds. The common space for gatherings, discussions, games promotes socializing among the seniors and are placed like pockets along the circulation path.

The hallway must have 2,00 m, 1,2 m minimum, shorter than 6 m and under 6° incline. Ramps will have handrail on both sides and the minimum free width is 1, 20 m.

The dining room must provide a family atmosphere and it must be avoided the appearance of a diner.

- The area for medical supervision must have: medical offices with a waiting room; treatment room with two toilets; a dentist; a fitness area with massage, physical therapy, pool; a morgue.

- Loisir area with a chapel, a bookcase and one or two rooms for hobby activities.

- Technical area with: a kitchen with all the necessary facilities (storages, washing area, reception area, serving area), but in some cases the nursing house can use a catering service: thermal heating installation; a storage for all bed effective; auto service and maintenance workshop.

- Exterior area with parking space for residents and visitors, pergola, pavilions, flower garden, vegetable garden in order for the residents to have an occupation.

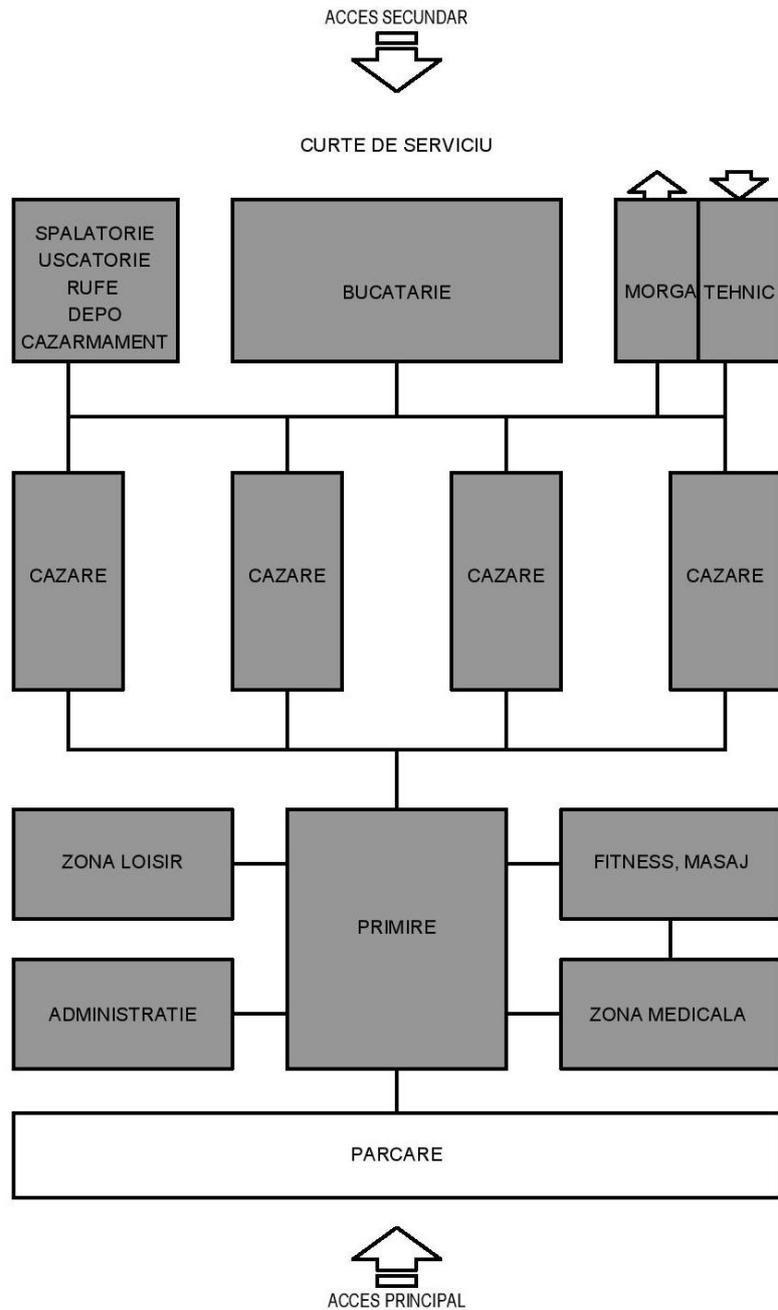


Fig. 3 Functional scheme

Its mandatory to provide vertical circulation nodes handicap-sized and lifts, one for persons with disabilities. Also, the exterior stairs ramps shall be provided with maximum inclination of 5%.

## 6. Conclusions

«A society for all ages is one that does not caricature older persons as patients and pensioners» said Secretary General Kofi Annan. «Instead it sees them as both agents and beneficiaries of development». These words belong to Kofi Annan, Secretary General of UNO and represents a relevant social strategy direction on old age. In order to keep up with the high rate of aging, it requires a multidisciplinary global effort designed to create a conducive environment friendly extension of active life and protection of old age. The architect, in his work, is called to find a common research and advances in various branches both theoretical and technological. The finished product of architecture should integrate a coherent legal, sociological studies, medical and innovative technologies. Projections indicate future directions in which the research will be to move.

The main objectives are followed in developing a multi-functional center for seniors should be as follows:

- Obtaining a comfortable and pleasant environment.
- Organizing the various functions work correctly.
- Identifying and ordering functional flows.

As architects we must be the ones that create a new architectural program, senior centers, for old people, based on ageing tendency, old people needs and architectural development.

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