

## Towards a Geriatrics Policy Integrated to the Primary Health Cares in Africa (The Case of Senegal)

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### Abstract

Due to the growth rate of the elderly (3.5%) that exceeds the national average of 2.7%, the country of Senegal will not escape from the aging process of its population. For now, gérontological issues do not stand in terms of demographic weight, but instead in terms of social destructuration, destruction of community solidarity networks and finally in terms of poverty. Despite the implementation of the "Sésame Plan" a policy of free access to the geriatrics medical care, elder people still meet issues concerning the support of their chronic affections. In addition, there is not enough specialists in geriatrics and care providers are not trained in that field. With regard to all of the above, it is important to propose gérontological and-geriatric solutions adapted to our socioeconomic and cultural context even if we still need developed countries' experience in our réflexion. The alternative is to integrate the medical particularity and specificity of the elders in to the global care system within the framework of Primary Health Cares. Recommendations for an efficient gérontological organization in our country must be based upon the knowledge of the following data: the current and future demography of elder people; the geriatrics pathology as it currently stands and its future development; the socioeconomic and cultural data: the country health system (health huts, posts, centers, regional and national hospital, university hospital center).

**Keywords:** Primary health care; Geriatric policy; Elderly people; Health pyramid; Senegal

### Context and Justifications

Upon the statistics and demographic data, the country of Senegal, as southern countries, will not escape from the aging process of its population which is currently young (60%). According to the same demographic surveys [1], the growth rate of elderly people (3.5%) largely exceeds the national average of 2.7%. However, the priority given to the youth trends to relegate to the background elderly people issues.

Unlike in northern countries, gérontological issues in african countries do not stand in terms of demographic weight, but instead in terms of social destructuration, destruction of community solidarity networks and finally in terms of poverty. Consequently, the very weak family income is not shared to the benefit of the elderly people.

Most of the elderly (80%) does not benefit from retirement pension and medical-social care is provided by the family [2]. Moreover, it somehow constitutes for the elderly a social security system. Furthermore, it should be emphasized that this family solidarity is currently facing economic difficulties.

In addition, the current western-model urbanization does not promote cohabitation between ages and intergenerational coexistence [2].

In sub-Saharan Africa in general and Senegal in particular, the health information of the elderly are rare. Thus, there are very few health research that are interested in this population category. However fragmented studies [3-8] show that the elderly as their European counterparts are particularly affected by chronic diseases (hypertension, diabetes, cataracts).

The hospital survey [5] done in Dakar concerning elder people place atheromatous affections (34%) at the first level of geriatric affections. Among those, high blood pressure and its complications score 80%. In the health sub-district of Ouakam [8], the main pathologies bringing senior citizens for consultation or hospitalization are high blood pressure (20.5%), malaria (13%) and arthrosis (8%). Hospital morbidity of high blood pressure in cardiology area increased from 14.6% in

1960, to 22.6% in 1970, to 42.6% in 1991 [5]. It has been proven that systolic high blood pressure increases by 2 to 3 times the risk of cerebral vascular accident (9%) for the elderly.

Regarding geriatric mortality, it is also dominated by cardiovascular diseases particularly cérébrovascular and coronary heart; among them high blood pressure occupies an important place [5,8].

Thus the increase in life expectancy, urbanization and changing dietary habits favor the emergence of atherosclerotic chronic diseases. These diseases pose an increasingly serious public health problem.

The characteristic of chronic diseases is to be disabling and debilitating, exacerbating poverty status. So the elderly who escape mortality of atherosclerotic diseases pay a heavy toll of disability and become a social burden for their families [9-11]. These conditions also entail costs (especially special drug purchase) that reduce the retirement pension or the family budget, which is often insufficient [2].

These chronic pathologies are most often detected at the stage of clinical pain or complications due to the following reasons: long latency period; symptoms often trivialized and attributed to the age factor; inadequate technical platform structures, lack of training of geriatric care providers; national priority given to the fight against communicable acute diseases.

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Regarding medical care, the elderly still face difficulties in accessing specialized consultations (cardiology, urology, neurology), medicines for the treatment of their pathologies and diagnostic means (coronary angiography), despite the introduction of the Sesame Plan or free geriatric services policy. Therefore, some of them continue to use traditional medicine because of the financial and geographical inaccessibility of health facilities but also because of their representation (beliefs, perceptions and attitudes).

One of the particularities of sick elder people is that they suffer from multiple disorders [5-9] with the risk of poly medication and iatrogenic diseases. More often, there is no coordination of drug prescription “the patient is cut into slices by specialties: heart, kidney, brain...”

As for the organization of the Ministry of Health and Social Action [12,13], it includes 3 levels:

- The central level (responsible for the elaboration of health policies) represented by the Ministry’s office and national departments
- The regional level composed of Medical Regions: responsible for the supervision and the coordination;
- The operational level or executive level represented by the health districts.

Yet there is a real political will of our decision-makers to take into account the concerns of the elderly as evidenced by the introduction of Sesame Plan or free geriatrics care policy. This salutary initiative and much appreciated by the recipients, however, faces difficulties: insufficient resources shortfalls, targeting of beneficiaries, definition of the benefit package, communication, ownership by the beneficiaries, availability of drugs for the treatment of chronic conditions etc.

The administrative division, the health system and the activities assigned to the different levels, which are established from the bottom up, are summarized in a health pyramid (Figure 1) which also specifies the articulation of the services of the Ministry of Health with respect to the reference system.

The country has currently fourteen [14]. Medical Regions, 34 hospitals, 76 health districts, 91 health centers among which two [2] are specialized in psychiatry, 1679 health posts among which 76 catholic private clinics, and 1722 health huts [14]. However, in terms of health facilities’ coverage, Senegal has not reached yet the WHO standards.

The Senegalese Health system is designed as a pyramid, with a bottom-up trend, linking successively the health hut, the health post, the health center, the regional hospital and finally the university hospital center.

The health posts based in rural communities (sometimes in wide villages), in the districts and larger urban ones, supervise a number of community facilities (health huts and rural maternities). Health centers, located in the departments or wider districts are the reference structures of the health posts in terms of preventive and curative care and administrative management. Regional Hospitals or Level II Public Health Structures are the references for the health centers; they have a high level of medical platform and provide various specialties (cardiology, nephrology, ophthalmology, rheumatology).

On top of the health pyramid, are placed the university hospital centers or Level III Public Health Structures They constitute the last reference level; in addition to their vocation of medical and surgical care, they provide both initial and continuous trainings for doctors, and also conduct medical research.

Similarly, it is noted that existing national health programs (Reproductive Health, Mental Health, Nutrition, AIDS) do not take into account the elderly needs.

For now, there are only two geriatrics health facilities in Senegal, both based in the capital city, the Medico-social center of the Senegalese Provident Retirement Institute dedicated to non-civil retired agents and the Geriatrics and Gerontology Centre of fully financed and equipped by the City of Dakar with support from the Ministry of Health and Social Action. This structure receives the elderly regardless of their status, affiliated or not to a pension plan.

Concerning the human resources, Senegal currently has only 4 doctors in geriatrics, both trained in France, among which 2 currently work in the gerontology and geriatrics center, 1 in the Medico-social center of the Senegalese Provident Retirement Institute, and 1 in the Internal Medicine service of Aristide Le Dantec Hospital.

We must mention that most of medical prescribers haven’t been trained to support the elderly while some clinical manifestations are often misleading and may retard the diagnosis (for instance, a mental confusion provoked by a urinary retention). In addition, a symptomatic treatment for a senior citizen suffering from multiple disorders, inappropriate prescriptions (for instance, the association of anti-inflammatory and hypotensive medication) and the lack of a coordination of the prescriptions can provoke an iatropathology.

Now, geriatrics training is being included in the curriculum for doctors and paramedical staff’s training, and the University Cheikh Anta Diop of Dakar is currently delivering a University Diploma in Gerontology.

And as life expectancy lengthens, the prevalence and incidence of chronic diseases increase reflecting the effects of the demographic aging. Thus, it is now time to propose gérontogeriatric solutions adapted to our socioeconomic and cultural context before things worsen. Even if the rich countries’ experience (success/failure) can serve us in our reflexion, geriatric issues do not stand in the same way and solutions could not be the same. Besides, solutions as home care, services of short-middle-long stay, day or night hospitalization, etc, do not definitely solve the problem. Learning from those limits, an adapted geriatric policy can be designed and progressively implemented by African countries. We African do not need to copy the western model, as we neither have the financial means nor the same cultural realities.

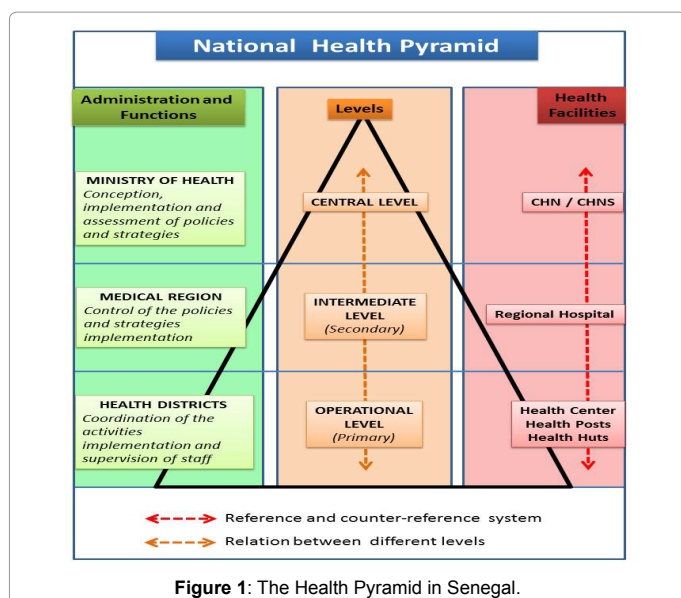


Figure 1: The Health Pyramid in Senegal.

Administrative Structures	Réception and care	Current staff
	House	Caregiver
Village	Heath hut	Community Health Worker (CHW)
Borough	Heath post	Nurse/Midwife
Department	Heath center	Doctor, Pharmacist, Dentist
Région	Regional Hospital	Medical and/or Surgical specialist
National	University Hospital Center	Medical and/or Surgical specialist - Teaching - Training

**Table 1:** Primary Health Care's structures.

Therefore, while expecting to have human resources trained in gériatrics; the current alternative is to integrate elderly people medical specialty and particularity in the global care system within the Primary Health Care framework (Table 1).

## Solutions Proposed

Recommendations for an efficient gerontology organization in our counties must be based on the availability of the following data:

- Current and future demography of senior citizens;
- Trends of gériatric diseases;
- Socio economic and cultural data;
- Country health system (health huts, posts and centers, regional hospital, university hospital center).

The solution in our African countries is to integrate support to the elderly in primary health care's facilities within the WHO objective of "Health for All".

### House, district, village

The home care program should enable the elderly to live independently within the family and the community. This program's stakeholders will be the family, the natural caregiver (usually, the spouse or the eldest daughter or the sister) and the Support and Assistance to the Elderly Cell (composed of the head of the district, the local association' delegate and one CHW). This program will ensure elder people have a personal hygiene, a correct and balanced diet, a psychic activity (video / brain games) to maintain cognitive functions, a minimal physical activity for well-being, a psychological support and as much as possible, professional activity so as to financially support his/her needs.

Urbanization has to adapt to the cultural realities and enable coexistence and solidarity between generations (parents-children-grandparents). Education will be based on the respect and protection of the elderly. The latter in turn, could get involved in social activities of their own environments but also in the education of toddlers.

### Health post

The nurse must issue a periodical health report with the following data: skin, mucous membranes, pulse, weight, blood pressure, teeth, sense organs, breasts, prostate and urinary stream, "intestate" (food and drugs), ensure prevention of loss of autonomy by helping the caregivers and training them in the basic current life practices (nursing, hygiene, food) and monitoring of homecare.

### Health center

A geriatric unit composed of the geriatrician or at least a general practitioner, a physiotherapist, a social worker will ensure curative

and preventive care, integrated to the primary health care policy, which is the fight against vascular risk factors in case of chronic diseases (maintaining appropriate physical activities, avoiding stress, not smoking...) a vaccination policy within the expanded program on immunization in case of transmitted diseases (influenza vaccine), a local medical care with the establishment of medical records of monitoring for the elderly, an accompanying medical care to improve life quality "give life to elderly" through a moral and psychological support, and finally, coordinate geriatric activity within the department.

### Regional hospital

Constituting a higher level of specialization and highly multidisciplinary, the geriatric unit coordinates activities at the region level. The preparation for retirement should be a specialty of the health center officials, Health Provident Institutes "IPM", insurance companies and public health facilities. Every worker or civil servant should, when approaching retirement, benefit from an annual health report for the screening of chronic diseases and an appropriate preventive education. The medical file will be transferred at retirement to geriatric monitoring centers (located in his place of residence).

The admission of elderly (hospitalization) in the same facilities as adults surely prevent the segregation of ages and will provide opportunities for seniors to benefit from the solidarity of the neighboring bed longer valid.

The elderly people admission (hospitalization) in the same services for senior citizens will certainly avoid age segregation and will give opportunity to the eldest to benefit from the solidarity of the other younger patients.. Moreover, any hospitalization is an opportunity given to the team to meet both the doctor but especially, the family members in order to involve and train them for their supportive role, in the hospital and at home.

### The university hospital center

University Hospital Centers, particularly the Public Health-oriented Institute of Health and Development are necessary to implement the World Plan on Aging. Their duties and objectives will be the following:

- stakeholders' multidisciplinary training (psychiatrists, social workers, economists, and most important students);
- the training assessment;
- treatment real costs calculation;
- elder people needs' analysis through epidemiological surveys and experimental research (clinic research, biology, pharmacology).

Therefore, those different health structures (local, departmental, regional, and university) will be linked through a medico social information network so as to optimize elder people support. The geriatric network will allow to keep a close contact with the elderly associations, the ministry department in charge of the elders, local medico social facilities, Red Cross units and finally, the elderly oriented non-governmental organizations. An harmonization with the Senegalese Retirement Welfare Institute and Social Security Office should be done so as to build a database concerning aging matters (medico social oftenly).

The West African Center of Gérontological Research (project to be created) and the African Society of Gerontology will be in charge of the activities' coordination respectively at the sub regional and African levels.

## Conclusion

The African health system is characterized by the coexistence of acute communicable diseases and degenerative chronic diseases. “Bad” aging prevention is the concern of all, both individuals and local, regional and state authorities. Education is the dominating component of the prevention and scientific knowledge must guide the authorities’ actions.

At the individual level, prevention must begin at birth, and as it is said, the first geriatrician is the pediatrician. It must be customized as each individual is a separate biosocial complex.

In Africa, the geriatric network must be articulated for now, around the family standing as the first and last level of solidarity. Of course, elderly oriented ministry structures or departments are useful but less than an efficient family.

According Vincenot [15] “there would be no problems or elderly or children if the family takes responsibility” and Messanvi Johnson [16] add “the family is still in Africa a permanent chain of solidarity that comes from cradle to grave that is to say, from birth to death”

At the relevant assertion, one is tempted to add that maintaining family and community solidarity that depends on non-medical data.

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