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SEQUOIA Institute: A multidisciplinary private service for the care of senior citizens

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Abstract. Population aging is a reality all over the world, requiring a change in the way care is perceived and resources are divided for different age groups. In Brazil, current indicators and projections place the country among those with the highest number of elderly people. By contrast, there is a shortage of action plans and inter- and multi-disciplinary teams, as well as public policies and professionals, focusing on the elderly, in part as a consequence of an accelerated aging process in developing countries. Within this context, the SEQUOIA Institute (IS) was created to attend to this process by monitoring the overall health of patients. The institute's routine work includes clinical actions, team meetings, socialization projects and lectures. The IS features a 10% yearly growth in medical assistance, a 20% rise in psychological treatments, and a 50% increase in lecture attendance.

Keywords. Developing countries, aging, health care, psychology, education, geriatrics.

Population aging is a reality. Growing old is a challenge that affects countries, both rich and poor. It is estimated that approximately one million people cross the 60-year-old line each month around the world. In Brazil this age group currently represents about 12% of the population, with a total of 22 million senior citizens. The growth projection for this group is even greater for the coming years, requiring priority attention from the public health system according to data 2010 from the IBGE.

The phenomenon of aging can be understood through the concepts of Demographic Transition and Epidemiological Transition. Both of them aid in the understanding of the alterations to the demographic profile of the population; that is, the manner in which the concentration of people of a certain age increases or decreases in the population dynamics of each country. It is interesting to see that even though this is a worldwide phenomenon, there are differences in the manner in which it is perceived from country to country.

Not only is the definition of "senior" different in developed countries and in developing countries, but also the population's aging process is different. In developed countries those above 65 years old are considered to be elderly, while the World Health Organisation (WHO) draws the line at 60 years old. In developed countries the aging process took about 100 years, while in developing countries it has been an abrupt process. Camarano stated that:

"population aging is, today, a prominent worldwide phenomenon. This means a higher growth of the senior population in comparison to other age groups. The relatively greater increase of the senior contingent is the result of its higher growth rates caused by the high fertility that prevailed in the past in comparison to the current fertility and by the reduction of mortality. While population aging means changes in the age structure, the drop in mortality rates is a process that begins at birth and changes the life of the individual, the family structures and the society." (CAMARANO. http://www.ipea.gov.br/pub/td/td_2002/td_0858.pdf – accessed on 24th Oct. 2009)

In Brazil, for example, the swiftness of this process may be observed by looking at the change in average life expectancy, from 43.2 years in 1950 to 68.5 years in 2000; in other words, a difference of 25 years and 3 months in life expectancy at birth in only half a century of the country's history. Forecasts show that between 2000 and 2050, the total Brazilian population should grow by about 50%, with senior citizens playing a preponderant role in those estimates. Carvalho & Wong (2008) claimed that, when analyzing the trajectory of the Brazilian age structure, Brazil presents one of the most accentuated growth rates. From 3.1% in 1970, by 2050 those aged 65 or older should correspond to approximately 19% of the Brazilian population. While 17% of the elderly of both sexes were 80 years old or older in 2000, in 2050 they will

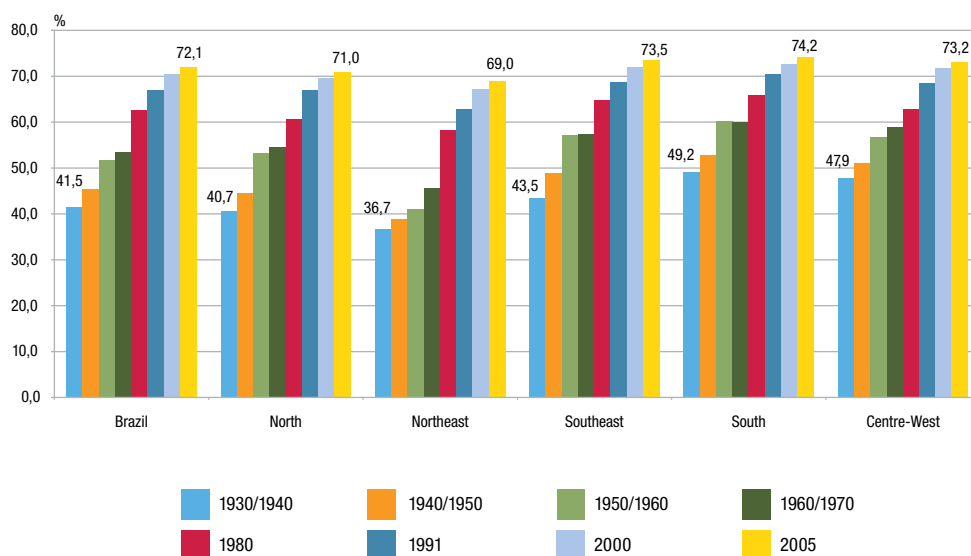


Figure 1. Life expectancy at birth by Great Region–1930/2005

Sources: IBGE, population census 1940/200 and national sample survey 2005

represent approximately 28% of the total. Veras (1994) stated that, given the improvement of the morbidity-mortality and social indicators, longevity is a fact and an increasingly important factor to be studied. In June 2009 the English magazine *The Economist* published a special report on worldwide aging that demonstrated its impact on the economy, public policies and health. It is clear that these changes alter a society's daily life as regards, for example, infrastructure, transportation and services, requiring the government and service providers to adapt to that contingent of 650,000 new seniors per year in the country. Despite the rapid growth of the elderly population, Brazil is still quite limited with respect to this population. There are 1000 geriatricians, doctors specialized in senior health, qualified to care for this population. This corresponds to a ratio of one geriatrician per 22 thousand seniors in Brazil according to SBBG (Sociedade Brasileira de Geriatria e Gerontologia).

The concern for the health of senior citizens appears because the elderly are responsible for the greater prevalence of chronic-degenerative diseases, also called chronic non-communicable diseases (CNCDs). The physiological wear, genetic factors and life habits are factors that contribute, as the years go by, to the presence of those diseases in a greater percentage of that population. The WHO states that CNCDs are responsible for 60% of deaths and disabilities around the world, in a progressive scale, and may reach 73% of all deaths in 2020. In 2001, in Brazil, CNCDs were responsible for 62% of all deaths and for 39% of all hospitalizations registered in the National Health System (*Sistema Único de Saúde*). Among the chronic diseases with greater prevalence among seniors, the following stand out: hypertension (HTN), diabetes mellitus (DM), infections, depressions and neoplasias. Because these are mostly incurable diseases, the treatment's goal is to maintain quality of life, and the complications caused by these pathologies cause grave concern because the consequences may be fatal.

The care for the health of the elderly thus becomes a challenge, and only through a critical analysis of the offer of health services in the country, allied to a bold health care proposal, can successful strategies for the provision of health care to this population be developed. Goldstein & Meier claimed that in the management of senior health, actions should be directed towards the maintenance of the functional status, with the purpose of identifying and treating the major geriatric syndromes, frailty and physiological changes that accompany the aging process.

In this context, and worried with this pressing issue, the *Instituto SEQUOIA–SERVIÇO PARA ENVELHECIMENTO COM QUALIDADE DE IDOSOS E AFINS* [SEQUOIA Institute (IS)] was created. It was designed as a project for the provision of care to senior citizens and to all those involved in the quality aging process. The goal of this project goes beyond the current medical approach, aimed only at disease carriers, to also include all those interested in longevity with quality, aiming at a bigger target: the global health of its participants. The idea appeared in 2007 and was implemented 6 months later, in 2008, boosted by a contract signed between the founding partner and a health-care operator. The latter prepared and developed a management program for carriers of chronic diseases with the goal of cutting costs through a specific physician (*médico-vinculado*). This professional would be responsible for following a limited number of clients and for sending clinical reports on each consultation so that the company could follow up on the result indicators in parallel with the financier. This type of care became part of a portfolio of programs named “Viva Melhor” [Live Better] offered by this Health Care company, owned by a social security foundation for public servants in the city of Rio de Janeiro. One of its particularities is that it includes a large number of individuals above 65 years of age. This program was fundamental to the foundation of the IS project, since it made possible the financial support to other activities of the

program beyond individual consultation. IS's head office is in Rio de Janeiro, in the Tijuca quarter, northern area, which has on average 36,000 senior citizens, the average salary is 15 to 20 minimum wages and has the highest demographic density of doctors in the city.

Geriatrics and Gerontology are science tools used by IS in the care it provides to its patients. In the group's opinion, the Psychologist is the professional best suited to propose, with the Geriatrician, the actions and approaches regarding mental health, since his/her technical skills allow him/her to detect the nuances that involve the psyche of aging inherent to the individual. IS's motto is to share the individual's health status through counseling and participative directing of his/her habits and attitudes both in health and in sickness, motivating the patient to practice self-care and to overcome his/her emotional barriers and be willing to meet the challenges of aging together. The acknowledgement of these terms by the individual may provide a better understanding and a reduction of the weight of Chronic Disease in senior patients and, therefore, the preventive attitude is the centre of this concept. Since CNCDS cannot be cured, their treatment is meant to maintain the senior citizen's quality of life, preventing complications that may occur in the presence of these diseases.

IS's work is performed by a multi-professional team, acting in an interdisciplinary manner, with the participation of professionals in collective projects whose support and exchange of knowledge is the differential for the care support. In this type of care, as it counts with various aging-related areas of knowledge, we are various observers that, together, are able to describe adequately the best approach for the patient. From the management point of view, this proposal gets better quantitative and qualitative responses and, thus, successfully reaches the results indicators.

IS's clinical routine consists of the follow-up of the aging process of our patients through regular clinical support and health promotion activities. These consist of a cycle of lectures and workshops on predetermined subjects and/or resulting from requests made by the patients. At the initial visit with the Geriatrician the patient is given a health survey that covers his/her entire clinical history, current and past, family history, habits and customs, leisure, occasional prevention actions and symptoms that affect the patient's daily life. The physical exam of the patient includes the height and weight, blood pressure measurement and the entire approach for the verification of any abnormality. The goal of the visit is to approach the pertinent issues regarding physical health and also to identify peculiar conditions related to the aging process.

In a second step, when there is a spontaneous request, or a request from the geriatrician, the senior is referred to the psychology consultation to assess the status of his/her mental health. In this visit the habits and attitudes regarding health and daily life are addressed, covering not only the patient but also his/her family. An interview is performed, the work proposal is presented and indicators are collected for the beginning of follow-up. A first reassessment is performed after 3 months, with the collection of the same indicators for comparison purposes.

Lastly, and if needed, other professionals may take part in the assessment, such as the nutritionist, the neuropsychologist and the physical therapist, contributing to this wider approach to the assessment of health. Each professional issues his/her opinion, raising issues and providing suggestions for the follow-up of the patient.

The professionals meet after the visits to prepare a customized care plan, respecting the autonomy and the wishes of the patients. This care plan includes the corrections, adjustments and challenges to which the senior citizen must commit in order to obtain what he/she desires. The team clarifies that it will remain available for any events and questions; however, it stresses that the patient's commitment is of the utmost importance. The patient is called back to be presented with the plan and make the commitment, fully aware of what is expected of him/her and the need to return for further consultations for the follow-up of the defined goals. The date of the follow-up visits varies from weekly appointments up to four to six-month intervals, depending on the professional who conducts the follow-up. IS believes that, for health management to be successful, attendance to the visits must be systematic to ensure constant motivation and to allow the early detection of deteriorations. In the words of Robert Butler: *"Knowledge, in itself, does not generate a change of attitude. It requires the continuous action of the professional and the motivation of the patient in the difficult task of caring for the patient's Chronic Diseases."*

In addition to the personal meetings, activities related to the promotion of health—directed towards self-care and the development of a social support network—are offered to all patients, among which: the Lectures Cycle, the Ikebana Workshop, *"Tricotando sobre o Envelhecer* [Knitting about Growing Old]", *"Encontro para se encontrar* [Meeting to find yourself]" and the *"Curso de Cuidadores para familiares de Idosos* [Health Care Provider Course for Senior citizens' relatives]", activities for the caregivers and also *"Memória de Sequoia* [Sequoia Memory]", a cognitive stimulation activity. All these activities have a social aspect, adding value to the Health Care Plan proposed for each individual, binding the patient to IS's proposal and motivating, educating and counselling for longevity with quality. In all these encounters the stimulus of the self-awareness of health and, mainly, of the clinical condition are constantly stimulated so that the final goal is not lost. The patients are no longer passive agents and become assiduous actors in the decision-making process regarding their health-disease status.

Despite the ideal focused on scientific bases and the motivation of the entire team that embraces IS's mission and values, many problems are experienced in the daily activities. In some seniors we find a peremptory refusal or a lack of interest in the participation in the Health Management program. In others, the denial of their own aging process and of their disease is clear. Difficulties in moving around even for regular consultations or the low attendance to extra-ambulatory activities are elements observed by most professionals who deal with the follow-up of chronic diseases. Current care models show us that the patient often puts the "resolution of his/her problem", healing or improvement of his/her chronic symptoms in the hands of the therapists. The new care model

proposed by IS confirms a paradigmatic change of this reality, pointing to the appearance of the so-called action-agents. The responsibility for the health-disease relationship is shared with the professional, and the latter is not the sole direct responsible for the patient's well-being. The professional is responsible for guiding the senior towards the best path; however, the patient decides whether to take that path or not. We, at IS, believe it is through the patient's awareness of his/her own experiences throughout the selected path that an entire lifestyle is transformed. Intrinsic factors, such as food preferences, wishes and even needs that result from an obvious chemical dependency shall be taken into account. In parallel, the extrinsic factors are also considered, such as the cultural, anthropological, socioeconomic and psychological aspects of the individual.

When the problem does not lie in the patient, the family is the best ally or the worst executioner. Anger, fear, denial of some ongoing pathological process and distrust of preventive health measures are some of the examples found by IS and also in other services. In the understanding that the disease is lived collectively and not individually there are risks for the family members, such as: becoming sick along with the patient, experiencing a feeling of rupture as a result of the disease or of discontinuity of the life story. We see that, even when the patient is aware of IS's intentions, the adherence to the program depends of the team's capacity of persuasion. Work on adhering to the therapy shows the difficulty in the follow-up of a percentage of chronic patients and also stresses that, among those who adhere to the therapy proposal—be it the use of drugs or the self-monitoring of the care—the re-hospitalization rate, mortality rate and functional capacity, among various, actually improve.

From the structural point of view, there is also much to be done in the provision of health care to seniors with more complex clinical pictures. In terms of individual care, in the clinic, the challenge for the users of devices such as wheelchairs, walking frames and canes is getting to the consultation room, since functionally dependent individuals and frail seniors find difficulty in going to consultations as a result of the restricted room available.

IS's head office does not have sufficient room for all those interested in the activities of promotion of health; therefore, regarding the motivational stimulation activities, the difficulties in finding a permanent location existed until 2010. Our team of professionals is aware that, for a greater face-to-face bond in the promotion actions, it is essential to avoid a permanent alteration of the location in which those activities are performed, since this ends up contributing to the discouragement, confusion or even forgetfulness on the patients' part and thus hindering the continuous attendance. It is important to discipline this population for this type of activity, since it points to an entertainment alternative and thus breaks with an inertia that is common among senior citizens. The constant changes of venue prevent this discipline. In 2011, IS secured a partnership with a non-governmental entity for this purpose and the increase of attendance is remarkable. The *Serviço Social do Comércio* (SESC) [Commerce Social Service] is a private non-profit institution kept by businessmen from the commerce, services and tourism areas that is open to the

community and a pioneer in Brazil in activities designed for seniors; this was the partnership deemed ideal for IS at this moment as it allows IS to experience the routines and challenges of the administration of a recreation centre.

Since IS intends to expand these actions with the development of a recreation centre, the construction of partnerships becomes necessary to make this project viable. IS's members feel that partnerships with supplementary health care providers could be a solution. Some health care operators have already understood this aging process, possibly as a result of its financial impact. In fact, about 50% of the users of their services are seniors and chronic disease patients. However, the attitude of change from the "hospital-centred" paradigm to the prevention path is still very small. Few operators offer activities for the promotion of health and those that do are normally associated with public initiatives such as Senior Universities.

There is no doubt that the challenges are many. And there is one more to be considered. It is a known fact that the technical qualification is the differential in the care to these patients. The aging process has nuances that only a trained therapist knows. Despite the growing interest in longevity and the various courses on this matter, there are few professionals who are actually qualified for this task, especially in the gerontology area.

Many of the positive modifications seen in IS's patients result from the follow-up visits with the Psychologist. This professional discusses in depth the problems and difficulties of the treatment with the patients. The continued use of a large quantity of drugs, the alteration of habits as a result of a specific disease and the lack of pleasure associated to these changes are some of the most common difficulties. However, the perception of the improvement of quality of life and of the control of his/her morbid conditions is an element that the patient and/or his/her family members do not clearly acknowledge. The entire team is responsible for identifying that which the patient understands as his/her disease and how the patient characterises it, and, in light of this perspective, if there are damages to the patient's health as a whole, the professional shall propose a *resignification* of this complex through the stimulation of the self-awareness of health and self-care. In the same manner, especially with dependent patients, calling in the family for a clarifying meeting is also part of the attributions of IS's professionals.

To face the various challenges, IS's leaders use creativity and perseverance in the construction of bonds with their partners. A major victory for IS was the partnership with SESC in the scope of which the latter included IS's lectures and workshops in its monthly programming and offered not only to advertise the initiative in its own vehicles but also to pay for all of the material involved. IS contributed to this partnership with its activities program and made all of its professionals available for the health promotion activities routinely organised by SESC.

When assessing the possibilities for improvement of the IS, we may mention the expansion of the current physical space and a larger investment in the divulging of the health promotion activities. Since its beginning, IS has been giving lectures in pharmacies, philanthropic entities and churches

as a way to divulge its activity, but the result falls short of expectations. Some divulgation is also conducted in the city's subway and in nearby commerce, with results similar to those of lectures, without the attendance and the bond expected by the team.

Another aspect that requires development is the computerisation of the care. An electronic medical records system is important because the interfaces between the professionals would facilitate the decision-making process in terms of therapy and aid in the expediting of the preparation of reports, optimising the management analyses. Also, when considering the expansion of the project, the computer system is fundamental to the management not only of the clinical care but also of the recreation centre.

Meanwhile, a relevant and provocative item that needs discussion is the pricing of this type of service. It is difficult to put a price on something that is intangible, the comprehensive health care service that offers an added value that is an alternative to the current health care proposal that is fragmented and provided by a single doctor. In fact, the great challenge in putting a price to IS is identifying the "buyer" of the service in order to work with the said buyer on the actions proposed, present the possible results and find the best manner to develop a fair price for the care that may reflect the technical capacity of the professionals who work in it and the valuation of that work by the end clients. These may not be the direct buyers of the product because, since the senior population is heterogeneous, sometimes the person who pays for the service is not the one who will benefit from it, the true buyer. Among those who may acquire IS's "products" are children, grandchildren or caregivers, who are considered indirect clients, since the person who will really use the service, the direct client, is the senior patient with some level of dependency. In these cases, our efforts are doubled, since in addition to providing a technically efficient care the IS professionals must also show results to these indirect clients, the ones who pay for the service. It is important that this buyer sees the value of what is being acquired when making the financial investment in the services. That will only be possible through the understanding of the results that may be reached with the service provided and, most of all, that this result does not depend on the efforts of IS's team alone but also on the commitment of the client. This means that the results desired and visualised are more likely to be reached and the value of the financial, monetary investment is more likely to have a return if both clients and professionals comply with each activity, each stage of the process.

In this context, the desired final result of the service provided depends of the client's clinical status (especially his/her functional capacity), his/her level of dependency and, thus, of his/her power to make decisions. The weight of the active participation of the user and his/her family is something that cannot be neglected. The physiological complexity and the probable co-morbidities the senior may present contribute to the different scenarios this client may be in and are determinant to the care plan. The direct client may be clinically stable, have co-morbidities and have healthy habits. However, the health care team may find a dependent senior, with chronic progressive end-stage pathology; this is the

origin of the different situations, for each scenario are proposed different specific actions.

Regarding the benefits and impacts of the project, in the 3 years of its existence it has provided medical care to over 400 senior citizens, a monthly care average of 100 clients. The average of expansion of the clients in Geriatrics that are not part of the "Viva Melhor" program is now 10% per year, achieving the previously established goal. In psychological care the increase of interconsultations and of the weekly visits is also visible. There was a significant growth of the number of care events provided in comparison to the previous year, from 12 consultations in January 2009 to 32 in November 2010. The number of people attending the lectures has also increased an average of 50% per year, especially at the end of year celebration, a unique event organised by IS, which had 130 participants in 2010.

There is a rise of the absolute total of patients present at consultations and lectures, and also an increase in the participation of IS's professionals in external events related to the subject of human aging. Invitations for classes and consultancies grow about 10% per year. The program abandonment rate in 2010 was of about 5% per month, compared to the previous year, throughout the same period. This is related to the absence from medical consultations for more than 6 months.

IS's managers are aware that it is still early to assess the actual change in behaviour, this being the main goal of the project. Changes of habits are slow and in this audience—be it as a result of their life history, social, cultural or economic context and of the physical alterations of the senior's physiology or the presence of CNCDs—the expectation is that the first consistent results may be seen in 5 years. This is coherent with the history of study and research on senior citizens, an area growing and increasing in strength in Brazil since the 1980's, according to Prado & Sayd (2004).

Lastly, it is a known fact that this type of approach is cutting-edge and when searching for this type of service in the city of Rio de Janeiro, the number of services found in the private market is not sufficient for the needs of the senior public. IS's focus is on its consolidation in the health care services market and as a centre for studies on aging throughout the years, so that it may become a benchmark for the care of senior citizens in the city.

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