



# Contemporary care model for the aged: an imminent need

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## Abstract

Is it possible to age with health and quality of life in Brazil? This article defers the answer through the proposition of a cost-effective care model, in line with what is most contemporary in comprehensive care for the elderly age group. The model presented here proposes to think, in an absolutely innovative way, the care that must be provided to this portion of the population. In this text, the theory and concepts that underlie the proposed model are presented. Basically, the text reports the need for emphasis on light instances of care; in other words, focus on coordination, prevention and customer monitoring, in order to minimize waste, offering better quality care and reduced costs. The epidemiological assessment instruments used and the step by step of all health professionals are also presented.

**Keywords:** Older people.  
Care Model. Prevention.  
Health Promotion.

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There was no funding for the execution of this work.

The authors declare that there is no conflict in the conception of this work.

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Received: December 08, 2023  
Approved: February 27, 2024

## INTRODUCTION

The increased life expectancy of Brazilians represents a major achievement. Live longer – grow old – this has become a reality in the last few decades and is set to become even more so in the future. However, citizens having the chance to live these extra years to the full, while maintaining functional capacity, health and quality of life, should also be a part of this advance. In recent years, a number of institutions and their research teams have investigated changes in the model of health service provision. Not only is this need imminent but, more importantly, feasible.

The health care of the older population can be restructured in the sector toward providing better care outcomes at a lower cost. But what is required for this to come about? That all actors in the sector take a lead in achieving the necessary changes and be open to innovation. In many instances, innovating may merely require returning to simpler care practices and recovering values lost amid the current national health system.

In today's reality, living into one's 80s, 90s or beyond has become relatively commonplace. Nevertheless, there are deep concerns over the current care model, since these additional years of life should not be marked by suffering, pain and high health-related costs.

Incorporating the knowledge, theory and application of these instruments into daily clinical routine is pivotal for this care logic to take root in Brazil and for both public and private health sectors to offer improved care to the older population - the fastest growing age group worldwide. Failure to change the care model for older adults could have dire consequences for the future.

Therefore, the primary objective of this article is to help further the design of more effective care models tailored to the specific settings and characteristics of the aged population.

## Demographic transition

All of the demographic predictions about growth of the older population made in the 1980s have materialized. If anything, these estimates have erred toward underestimating the trends, since figures are even greater than initially envisaged<sup>1-3</sup>.

Increased longevity is a major triumph for mankind. Surviving into late-life used to be a rare privilege that, today, has become something of a norm in Brazil and likewise among many developing countries (according to the 2022 IBGE census, over 37,814 Brazilians were 100 or older!). There has been a substantial improvement in the health parameters of the population, although this has not occurred uniformly across all countries and socioeconomic contexts. However, the greatest triumph of the 20<sup>th</sup> century brings with it a major challenge: caring for this age group and conferring quality to the extra years of life.

In 2002, the World Health Organization (WHO) released a publication with a policy framework for active aging, defined as the process of optimizing opportunities for health, participation and security to enhance quality of life as people age. Drawing on the definition of active aging, 3 key pillars of this paradigm emerge: health, participation and security<sup>4,5</sup>.

The health pillar transcends the purely physical realm – a fact backed by evidence from a host of scientific fields – to encompass the area of mental health and social wellbeing, all recommended targets of public policy interventions.

In Brazil, the shift in the age breakdown, with a proportionally larger older population, is a relatively recent phenomenon. The Brazilian population has grown markedly over the past 70 years. Moreover, the increase in the aged population has far outstripped that of other countries.

In 1950, the statistics show that, the total Brazilian population numbered 54 million, rising to 213 million by 2020. According to projections,

the population will grow further to 229 million by 2050 and decline to 181 million by 2100. The absolute growth has been a factor of 3.3 within the space of 150 years (lower than the 4.3-fold increase in the global population)<sup>6</sup>.

In this respect, the decline in Brazil's population is underway, evidenced by the significant drop in numbers at the last census, in other words, the Brazilian population is already shrinking.

While the growth in the Brazilian population as a whole was high, the increase in the older age stratum exceeded the global average. The contingent of older Brazilians aged 60 or over was 2.6 million in 1950, rose to 29.9 million in 2020 and is set to reach 72.4 million in 2100 (absolute increase of 27.6 times). In relative terms, the older population aged 60 or over accounted for 4.9% of the total population in 1950, a proportion rising to 14% in 2020 and set to reach a whopping 40.1% in 2100 (relative 8.2-fold increase in proportion between 1950 and 2100).

The absolute number of older Brazilians aged 65 or over was just 1.6 million in 1950, rose to 9.2 million in 2020 and is set to reach 61.5 million in 2100 (estimated absolute increase of 38.3 times). In relative terms, the older population aged 65 or over accounted for 3% of the overall population in 1950, rising to 9.6% in 2020 and set to exceed one third (34.6%) by 2100 (11.5-fold percentage increase between 1950 and 2100)<sup>6</sup>.

The number of older Brazilians aged 80 or over was 153,000 in 1950, rose to 4.2 million in 2020 and is projected to reach 28.2 million in 2100. The absolute growth in this age group was a spectacular 184.8 times over the space of 150 years. In relative terms, this oldest-old population represented only 0.3% of the total population in 1950, a proportion that increased to 2% in 2020 and is set to reach 15.6% in 2100 (an impressive 55.2-fold increase in rate between 1950 and 2100).

The most striking data is that, according to the 2019 revision of projections by the UN, the total number of Brazilians is predicted to peak at a population of 229.6 million in 2045, although this figure is widely believed to be an underestimate. The absolute number of older individuals will continue to

rise, where the groups aged  $\geq 60$  years (79.2 million) and  $\geq 65$  years (65.9 million) will peak in 2075. The group aged  $\geq 80$  (28.5 million) will reach its peak just in 2085. The absolute number of older adults is set to decline in the last two decades of the 21<sup>st</sup> century. However, the percentage of older individuals as a proportion of the overall population will continue to rise, accompanied by additional responsibilities and opportunities<sup>7</sup>.

Taken together, these data indicate that the future of the 21<sup>st</sup> century will be a grey one, i.e., the percentage of older people will reach levels never before seen in history. The Brazilian case is no different, but the process of population aging is even stronger, with the proportion of older people exceeding the global average. From a demographic standpoint, this is a crucial issue, since the high-income countries underwent more gradual growth over the course of the 20<sup>th</sup> century and, with their economic power, had more time to offer this contingent of the population better structure and resources.

Brazil must take on the task of ensuring quality of life for its senior citizens who, as per the majority of Brazilians, have low education and poor social protection. Health-wise, this group has a high prevalence of multiple chronic diseases<sup>8</sup> (group of diseases associated with multiple causes, characterized by gradual onset, typically unclear prognosis, and long or undefined duration). These diseases have a changing clinical course with potential phases of worsening and resultant disability. These conditions require interventions entailing lifestyle changes in a process of permanent continuous care and supervision<sup>9</sup>, representing an economic burden for society<sup>10</sup> due to the growing demand for healthcare services. Aged patients, compared with other age groups, tend to have longer, more frequent, hospital stays. This situation has major economic, welfare and social repercussions.

Human aging should not be regarded as a burden. Social policies must be devised for this group. In the health field, care should be managed in a more contemporary and adequate way to safeguard this wealth of knowledge and experience without this becoming overly costly for the sector. This also creates the need to expand<sup>11</sup> and to qualify health professionals to deal with chronic diseases.

Also, this calls for constructing an innovative quality model, given the current system is outdated and the root cause of the current poor service and health crisis. This is especially true for older users, the patient group associated with the greatest demand and cost with respect to healthcare.

The modelling of this new framework should address and outline the points set forth in this article.

### Chronic disease and care model

In Brazil, the leading cause of mortality and morbidity are chronic non-communicable diseases (NCDs), which typically develop slowly over long periods and have difficult-to-predict long-term effects. Neuropsychiatric disorders account for a large proportion of these NCDs<sup>12</sup>.

In a 2015 report, the World Health Organization (WHO) noted that, of the 38 million lives lost in 2012 due to NCDs, 16 million (42%) were premature and avoidable (Carvalho, Marques & Silva, 2016). As the costs of managing these disease mounts worldwide, they account for an increasing chunk of public and private expenditures<sup>14</sup>.

Chronic conditions traditionally include cardiovascular diseases, diabetes, asthma, chronic obstructive pulmonary diseases (COPD) and chronic degenerative diseases. With improved survival rates, this group of diseases now also includes many types of cancer, HIV/AIDS, neuropsychological disorders (such as depression, schizophrenia and dementia), arthroses and visual/auditory deficits. Most of these conditions have no cure but many can be prevented or controlled through early detection, by adopting healthy habits and diet, engaging in regular exercise, and accessing adequate timely treatment.

In addition, many of these chronic diseases constitute a set of conditions, where some authors and institutions define individuals with multiple co-occurring conditions as complex patients, characterized by a profile of chronic presentation. The most prevalent features differentiating this group include the presence of several concomitant chronic diseases, high use of urgent hospital services

with several episodes during the same given year, temporary or permanent reduction in personal autonomy, and polypharmacy. There may also be other associated factors, such as advanced age, living alone or with low family support and fall episodes, among others<sup>15</sup>.

Various chronic conditions are linked to an aging society, but also to life-style choices, such as smoking, alcohol use, sexual behaviour, poor diet and low physical activity (sedentarism), besides genetic predisposition. The common feature these conditions share is the need for a complex long-term response coordinated by health professionals from a range of disciplines, with access to the required medications and equipment, as well as strategies to encourage patient adherence to treatment and also social welfare. However, most health care and services are still geared up for dealing with acute episodes.

Against this backdrop, the management of chronic diseases is increasingly regarded as an important issue by managers and researchers worldwide who seek interventions and strategies to tackle these conditions. It is important to emphasize that improvements in the quality of life of the population are derived from a series of factors, including the technological advance seen in many fields of knowledge and in modern science.

### Changes needed in the system of healthcare for the older population: moving away from a disease-centred approach

The demographic transition and improved social and economic indicators in Brazil, relative to previous decades, has led to growth in the contingent of older adults and placed a greater financial pressure on public and private healthcare systems. Expansion in this stratum of the population is accompanied by an increase in chronic diseases and associated costs.<sup>16</sup> An upshot of this growth is a rise in demand for health services which, in turn, creates a shortage and/or restriction in resources. Compared to younger individuals, hospital admission is more frequent and hospital stays longer in the older age group, given than diseases affecting these individuals are predominantly chronic and multiple, i.e., require constant monitoring and permanent care<sup>13</sup>.

Over the past decade, evidence has shown that most public-health problems that affect the population, including both communicable and non-communicable diseases, are in fact preventable. This statement is borne out by the significant decline in mortality from cardiovascular and cerebrovascular diseases, the fall in incidence and deaths related to cervical cancer, and also the decrease in the prevalence of tobacco use and rates of lung cancer in men<sup>17</sup>.

A shortcoming of most care models is that they are disease-centred. Sadly, preventive actions are still regarded as a burden of procedures and additional costs. However, this approach should be recognized as a strategy which, over the medium-to-long term, can reduce admissions and other much higher-cost procedures<sup>18</sup>.

All evidence points to the fact that biomedicine-based health systems will eventually run into sustainability problems. This fact suggests that programs for aged clients should be built based around integrated care, with an active role of health professionals and their team in managing not only the disease but the person, making judicious use of the available technology and of quality information and routine monitoring. Medical specialists, hospital, drugs, clinical tests and imaging scans are also an integral part of this optimal care model, but the approach should be centred on low-complexity interventions and follow-up of clients by their doctor<sup>19</sup>.

A contemporary health care model for the aged should incorporate a combined flow of education actions, avoidable disease prevention, disease onset delay, timely treatment, and rehabilitation of health problems<sup>20</sup>. In other words, a line of care for older patients that seeks to be effective and efficient must be underpinned by a coordinated informed network and boast an information technology system designed and tailored to this logic.

### Why the gap between discourse and practice?

Before examining the care model proposed in detail, a question must first be addressed. A consensus exists: all stakeholders, bar none, are in favour of this new line of care. Most, however, practice the opposite of what they preach.

The care model for older adults, when properly implemented, is an exception. In the seminal study by the National Health Agency (ANS), headed by Dr. Martha Oliveira in 2018<sup>21</sup>, this gap between discourse and practice is exposed.

The time for novelty and oft repeated clichés acknowledged by all (even those who do not heed them) is over. It is laudable to speak of the theoretical frameworks or policies promoting health aging - defined as maintaining functional capacity and autonomy into late-life, as well as quality of life, consistent with the principles and guidelines of the Brazilian National Health System (SUS) focusing on disease prevention.. Prominent national and international health bodies and societies have advocated this concept for many years<sup>15,22</sup>. However, the next step forward must now be taken<sup>23</sup>.

At this juncture we pose the question: if everyone is discussing the issue and the solutions have been put forward, why then has the situation stayed the same? Why has theory not become part of routine practice? Why have decision-makers not ushered in change?

In order for the health sector to advance, particularly that of geriatrics/gerontology, one of the issues that must be tackled is distrust. Today's society questions everything that is offered. With this level of no confidence, any proposed changes tend to be viewed with caution. Invariably, things which are multifactorial and constructed over many years are hard to transform. Changing a culture is no easy task. This point warrants deeper examination.

Another stumbling block is care quality, an under-valorised aspect. This is a hugely important issue which calls for greater awareness of health professionals and society alike. Some argue it would be too costly to apply tools for rating care, accreditations and certifications, yet qualified services are more cost effective, less wasteful and deliver better care outcomes for patients.

Furthermore, there is a generally-held notion that caring for aged patients transcends health. Besides diagnosis and prescription, elements such as social participation, and both physical and mental activities, are crucial to maintain good functioning. However,

difficulties remain in accepting these actions as an integral part of care, especially in supplemental health. There is a tendency to separate “social” actions from “curative” actions.

And concerning the model for remunerating health professionals? This group is generally underpaid, so why not adopt performance-related pay? Associating the discussion of outcomes with the form of remuneration is a powerful tool incentivizing doing the right thing. Thus, pay for performance (P4P) or performance-related pay (PRP) have become synonymous for the struggle to align access with care quality. Change in the remuneration model based on this new care framework, focusing on results rather than volume, needs to be a win-win type model, in which all stakeholders benefit, but particularly the patients.

In order to put into practice all of the actions needed for healthy aging with quality of life, care for the aged population needs to be rethought and redesigned, with an emphasis on the older adult and their particularities.

This will result in benefits, quality and sustainability, not only for the aged population, but for the Brazilian health system as a whole<sup>8,24</sup>.

With a clearer view of the way forward, it is time to step up and muster concerted efforts that transform theory into a care model offering quality for all, including the older population. It is an undesirable situation for the SUS to fragment or for there to be an increase in bankruptcies of private healthcare companies.

One thing is starkly clear: for every year that goes by, the cost of health increases while the quality of care declines. Such a system is unsustainable. It is high time, therefore, to put into practice what all advocate but fail to implement.

## Aging and health

Health can be defined as a measure of the individual capacity to realize aspirations and satisfy needs, irrespective of age or the presence of diseases<sup>8</sup>. Thus, the need for an efficient cost-

effective comprehensive geriatric assessment has become increasingly pressing. The goals of this assessment are to enable early diagnosis of health problems and to plan support services wherever and whenever needed to allow individuals to continue to reside in their homes. Traditional history taking, physical check-up and differential diagnosis are insufficient to provide a comprehensive evaluation of the range of functions needed for daily living of aged individuals<sup>25</sup>.

In the book entitled “*Repensando a saúde: estratégias para melhorar a qualidade e reduzir os custos*” (Rethinking health: strategy for enhancing quality and reducing costs), Michael Porter and Elizabeth Teisberg (2009) maintain that health comes before care. In their opinion, the need to measure and minimize risk of disease, offer comprehensive management of diseases, and ensure prevention services for all clients, including those who are healthy, is unclear. In this context, the authors state that health should involve preparation for the service that increases the effectiveness of the value chain (set of activities carried out by an organization, such as supplier relations, production/sales cycles and final distribution). This concept was first introduced by Michael Porter in 1985: intervention; recovery; monitoring and management of the clinical condition; guaranteed access; results measurement; and information dissemination.

Health systems comprise several points of care that do not work in an integrated fashion. In general, entry into this uncoordinated network typically occurs when the client is at an advanced stage, where the “front door” tends to be the emergency department of the hospital. This model, besides being inadequate and anachronous, has a dire cost-benefit ratio, since it makes intensive use of highly expensive technology. Its failings, however, should not be blamed on the clients, but on the care model itself, which overloads the higher complexity levels due to a lack of care at primary levels. Home-based care may represent an alternative for some cases. Home care should not be seen as a fad but as a more modern modality of care (Veras, 2020b). However, the advent of the modern hospital is a relatively recent phenomenon in that, not long ago, care was traditionally administered within the home setting<sup>26</sup>.

A prospective study of disease management<sup>27</sup> offered to beneficiaries of Medicare (health insurance system for older adults managed by the North-American government) showed that actions failed to reduce expenses<sup>28</sup> and that physicians were unhappy with the insurance providers paying the costs of disease management, possibly reducing their income, besides interfering in the doctor-patient relationship. Disease management programs for aged individuals are even more complex and have a very low cost-benefit ratio, given that treating a disease properly only reduces the rates of morbidity associated with the condition. The best option is to structure models that work in an integrated manner and cater for the whole range of needs<sup>29</sup>. If this approach is not taken, then the problem is hard to resolve, because other diseases and their frailties remain. Moreover, resources will not be used rationally<sup>30</sup>.

Epidemiological information translates to the ability to predict events, allowing early diagnosis (especially for chronic diseases), delaying the onset of these conditions and improving both quality of life and the therapeutic approach. Determining health status of the aged population should consider the overall state of health, i.e., take into account a satisfactory level of functional independence, as opposed to merely the absence of disease. Thus, the notion of functioning can be construed as a paradigm for the health of older adults, representing one of the most important attributes of human aging, since it encompasses the interaction between physical and psycho-cognitive capacity to perform activities of daily living<sup>20,31</sup>.

Well-being and functioning go hand in hand. They represent the presence of autonomy, individual decision-making ability and control over one's actions, establishing and acting on one's own convictions and independence – the ability to carry out something by one's own means – enabling the individual to take care of themselves and their life. It should be noted, however, that independence and autonomy, although closely related, are separate concepts<sup>31</sup>. Some people are physically dependent but are perfectly capable of deciding what activities they wish to engage in. Others, on the other hand, are physically able to perform certain everyday tasks, but not to choose how, when or where to carry out these activities<sup>20</sup>.

Functional evaluation defines the correct stratification and allocation of the aged patient into the line of care required, and also allows their care behaviour to be predicted. Functional autonomy is an important predictor of health of older adults, but systematically assessing the whole aged population using long comprehensive scales is far from ideal. A variety of assessment tools is available for screening risk and organizing entry to the health system, validated and translated into Portuguese.

A two-stage approach, dedicating full evaluation only to individuals at high risk, as detected by a process of screening, is more effective and less painstaking. For the first stage of rapid screening, a tool meeting the following criteria should be employed:

- simple and safe;
- short application time and low cost;
- accurate for detecting the risk investigated;
- validated for use in the population and for the condition being checked<sup>2</sup>;
- acceptable sensitivity and specificity;
- have a well-defined cut-off point.

During the first contact, the PRISMA-7 should be used, developed in Canada for screening<sup>26</sup> risk of functional loss in older adults<sup>13</sup>. Comprising 7 items, a validated, transculturally-adapted version of the scale for use in Brazil indicates the ideal cut-off for the population to be 4 points (4 or more positive responses). The scale requires no special materials, qualification or extensive training and can even be self-administered. Application time is 3 minutes and sociocultural and educational level do not influence comprehension of the questions.

The PRISMA-7 has been used systematically at the “front door” to the health system in Canada and by the British Geriatrics Society and Royal College of General Practitioners in the United Kingdom as a screening tool for functional loss and frailty<sup>32</sup>.

## The innovation needed

Socioeconomic transformations and their consequent shifts in lifestyle in contemporary societies – with changes in eating habits, increased sedentarism, and stress, coupled with the rising life expectation of the population – contribute to a higher incidence of chronic illnesses which today represent a serious public health problem<sup>33</sup>.

The way forwards is to take the right steps, with focus centred on the most important element in the whole process: the patient<sup>34</sup>. Care should be organized in an integrated fashion and treatment coordinated throughout the care pathway in a network logic<sup>9,34</sup>. The model should be based on early identification of risks of frailty of the user. Once risk has been identified, the priority is to intervene before the onset of illness, thereby reducing the impact of chronic conditions on functioning. The idea is to monitor health, not disease, within a logic of continued follow-up, varying only in terms of level, intensity and intervention scenario<sup>35</sup>.

It is important to attain better more financially economical care outcomes. This requires everyone involved to understand the need for change and allow themselves to innovate in terms of care delivery, means of remuneration and assessment of the quality of the sector.

This will result in benefits, quality and sustainability not only for this population group, but also for Brazilian health as a whole<sup>19</sup>. The effects of this change of model will be felt immediately by users. This transformation of the health system toward sustainability will become evident in the medium-term.

## Care model

In international frameworks, the generalist physician or family doctor fully handles 85-95% of their patients, without the need for the intervention of specialists. In addition, this doctor can recruit health professionals with specific backgrounds (Nutrition, Physiotherapy, Speech Therapist etc.), but it is the generalist who recommends them and performs referral<sup>36</sup>.

The British model, the National Health Service (NHS), is centred on the generalist doctor who has a high resolutive capacity, called the general practitioner (GP)<sup>3</sup> (in the United Kingdom, the GP is a special doctor who earns a bigger salary than specialists and is highly valued by British society. General practitioners are considered the “true doctors”, because they “know everything”) and a close bond with the patient<sup>27</sup>. Universal access to these professionals is guaranteed, regardless of income or social level, akin to the Brazilian Unified Health System (SUS).<sup>37</sup> When registering with a GP, British citizens receive free state medical care at health clinics manned by a team consisting of generalist physicians and nurses. Any treatment needed, if not extremely urgent or due to an accident, will be administered at the local clinic<sup>38</sup>. By contrast, under the North-American model, patients are referred to numerous specialists. These are two wealthy countries with a long tradition in medicine. They operate, however, different systems which provide very different results<sup>39</sup>.

A recent study involving developed countries conducted by the Organization for Economic Co-operation and Development (OECD), showed the difference in health costs in the US compared with other wealthy countries with good quality care<sup>40</sup> – where spending on health care<sup>28,31</sup>, naturally, is larger than in developing countries. Nevertheless, spending by North-Americans is far greater. In 2017, spending per capita reached US\$ 10,224, or 28% higher than in Switzerland and over double that of the UK. These figures highlight that investing heavily in the treatment of diseases does not suffice.

Specialists are generally perceived as being more limited since they only have expertise in a single specialty. In the eyes of British patients, GPs are the best doctors.

In some countries, accreditation and assessment of quality indicators are obligatory requisites. In Brazil, priority is placed on volume. A policy for incentivizing quality is currently lacking. Patients do not always recognize this as a need, and both public and private health providers regard this as an extra cost. Although these needs are acknowledged by most health managers, little is done to improve the

situation. Thus, for a well-structured care model<sup>25</sup>, certain elements are essential. For example, the Statute for the Aged, enacted under Law no. 10.741 in October 2003, is a set of laws designed to defend and protect older citizens, defined as individuals aged 60 or over<sup>41</sup>.

In Brazil, there is an excess of consultations by specialists, because the current care model follows the North-American logic, promoting fragmentation of care<sup>28</sup>. Quality care requires greater awareness from health managers and society. Some claim that applying instruments to gauge service quality and introducing accreditations and certifications would prove too costly, but qualified services are more cost-effective, less wasteful and have better care outcomes for patients.

The model proposed here is structured around low intensity levels of care, i.e., lower costs and consisting basically of care delivered by well-trained health professionals and involving epidemiological screening instruments, besides the use of monitoring technologies<sup>31</sup>. It is paramount, especially in today's world, that information pertaining to clients and their electronic medical records are available on the cloud, accessible from computers or cell phones anytime and anywhere, so that physicians and other health professionals may monitor the client when necessary<sup>42</sup>.

A concerted effort should be made to ensure that patients remain within the sphere of low intensity levels of care, in a bid to maintain their quality of life and social participation. The target goal is to ensure over 90% of older adults enjoy this level of care<sup>43</sup>.

It is argued the portfolio of clients should contain individuals aged 50 or older. Too young? Not exactly.

Although not older adults, the epidemiology shows that it is from this age that chronic diseases begin to manifest. And the earlier the structure of a model of education in health and prevention is established, the greater the chances of success.

However, defining a cut-off from 55 or 60 years and older is also possible. In Brazil, the status of being aged is defined as occurring from 60 years onwards<sup>47</sup>.

Teams are based on a duo of professionals: a geriatric doctor and a gerontological nurse. This pair is responsible for the health of a portfolio of around 800 clients. Working weeks are defined at 20 hours for doctors and 25 for nurses. The geriatrician performs clinical management; the nurse, specialized in Gerontology, acts as care manager, monitoring the health status of users and consolidating the role of contact person for support and of strengthening ties with the patient's family.

A brief functional evaluation is carried out on the first contact. This serves as a reference baseline for monitoring and as a parameter for following the therapy plan between different points in the system.. The care manager is tasked with overseeing the transition of care between services and reevaluates the patient's functional capacity annually, or as and when necessary, encouraging their participation in the process. The care manager's function is key to the model proposed and their involvement mirrors that of navigator in the North-American system, a role created to help guide more frail patients.

The function of navigator can be found in some providers/operators in the United States and their role is central in the present proposed framework. According to the American Medical Association, this professional is responsible for managing the care of users throughout the different levels of complexity of the health system, checking whether prescriptions and orientations are being observed<sup>34</sup>.

Besides the geriatrician and nurse, the multidisciplinary team consists of a physiotherapist, psychologist, social worker, speech-language therapist, nutritionist, physical educator and workshop leaders (professionals engaged in integrative dynamic activities linked to the program). In the event that user care needs are identified at other levels of care, referrals are made to specialists but always via the generalist doctor.

It is important to point out that the model does not retain specialists, with some exceptions, such as when there is a large contingent of frail individuals at a clinic. In this case, six specialized areas related to the model are recommended, because these are part of the annual evaluations, or aiding the

generalist doctor, given their specificity, demand and high prevalence. These 6 specialties are in areas in which annual preventive and control exams are conducted, namely: Cardiology, Gynaecology, Uroproctology, Dermatology, Speech-Language therapy, and Ophthalmology. It should be noted that, of this list of professionals, the Otorhinolaryngology/ENT specialist need not be a doctor but rather a speech-language therapist).

Consultation with the specialists listed is only possible upon request by the patient's GP. Thus, if the client requires care of a given specialist, the other specialties will not be involved. The same reasoning applies to hospital admission. Doctors and nurses are in charge of contacting the physician of the hospital, to be briefed on the case, preferably seeking to ensure best care with shortest hospital stay.

### Client entry

Entry occurs via an action referred to as reception, which takes place in two stages. The first stage is administrative and institutional in nature, when an in-depth presentation of the actions proposed is made, with an emphasis on health promotion and disease prevention. Users thus have a better grasp of the model and the overall dynamic of differential care which will be offered to improve their health and quality of life. Moreover, participation of older users should be encouraged, because this is integral to this healthcare model<sup>24</sup>.

In the second stage of reception, the care commences proper. As outlined previously, in order to organize access to the levels of the model, a risk identification screening questionnaire is applied: the PRISMA-7<sup>35</sup>. After application of this rapid screener, the result will be stored on the information system. The patient then completes the other instruments comprising the functional evaluation. The functional evaluation entails a 2-step process performed by employing validated reliable instruments adopted by the leading geriatric research groups.

The Clinical-Functional Vulnerability Index-20 (IVCF-20) (<https://sistema.medlogic.com.br/>

ngIVCF20/ge/ standalone/671/646) measures 8 dimensions: age, self-rated health, activities of daily living (3 instrumental and 1 basic ADL), cognitive status, mood/behaviour, mobility (reach, grasp and pinch grip; aerobic/muscle capacity; gait and urinary/faecal continence), communication (vision and hearing) and presence of multiple comorbidities, indicated by poly pathology, polypharmacy and/or recent hospital admission. Each question is scored specifically according to<sup>44</sup> the performance of the subject, for a total of 40 points. In addition to the questions, several measurements, such as calf circumference, gait speed and weight/body mass index, are included to increase the predictive value of the instrument<sup>24</sup>.

Scoring is categorized into 3 classifications: 0-6 points, the respondent likely has low clinical-functional vulnerability and does not require further assessment or specialist follow-up; 7-14 points, indicates increased risk of vulnerability and the need for more in-depth assessment and attention to identify the appropriate treatment for chronic conditions;  $\geq 15$  points<sup>26</sup>, deemed high risk of vulnerability or existing frailty requiring more comprehensive assessment, ideally by a team specialized in geriatric-gerontological care with psychosocial support<sup>5,12</sup>. The group headed by Professor Edgar Moraes<sup>8,45</sup>, of the Federal University of Minas Gerais (UFMG), has made the instrument available on-line.

The Lachs Scale is applied after the IVCF-20. This probes other areas thereby conferring further robustness to the assessment results. This strategy of using 2 of the best epidemiological instruments aims to improve the reliability of results.

The Lachs Scale<sup>46</sup> – comprises 11 items (questions, anthropometric measurements and performance tests) and assesses areas commonly impaired in older adults: visual acuity, hearing, upper and lower limbs, urinary continence, nutrition, cognition and affect, ADLs, home environment and social support. The application of this instrument provides a rapid systematized means of identifying functional domains that should be subsequently assessed in more detail to establish a diagnosis and plan interventions.

- Katz scale – assesses basic activities of daily living<sup>47</sup>.
- Lawton's scale – assesses instrumental activities<sup>48,49</sup>.
- Mini evaluation of nutrition<sup>45</sup>.
- Tinetti scale – test of balance and gait<sup>50</sup>.
- Jaeger Card – assesses visual acuity<sup>51</sup>.
- Mini-Mental State Exam – Test by Folstein<sup>52</sup>.
- Geriatric Depression Scale – by Yesavage<sup>47,53</sup>.

In addition to risk identification and screening protocols, other epidemiological instruments are applied annually. The doctor is the manager of follow-up and also of the interprofessional geriatric team, performing more in-depth assessment toward devising an intervention plan. This information will be collected and stored until the end of the care pathway. After this assessment, an individual therapeutic plan is defined that includes regular appointments<sup>24</sup>, referral to the multidisciplinary team, community centres, and if applicable, assessment by specialists.

A unique longitudinal and multi-professional electronic medical record is then set up and used to store information at all levels of care under the care model, from first contact to end-of-life palliative care. This record should contain information on the patient's clinical history and physical exams, but also includes information on daily routine, family and social support etc. Information from other health professionals such as physiotherapists, nutritionists and psychologists etc. should also be held. Participation of the family, explanation of activities, and epidemiological screenings are other important features of this product. Information on all procedures is fundamental to allow monitoring of the client<sup>4</sup>.

One of main factors for controlling costs of the program is follow up at each level of care. This ensures there are no gaps in patient care when the case is referred to the care network, tertiary care is required or hospital-level treatment<sup>53</sup>. The transition

across care levels is overseen by the management team, which strives to maintain a smooth flow of information, liaising with assisting professionals and seeking to adhere to the principle of management predominantly by the geriatrician-nurse dyad.

The control of hospitalization takes place via a flow to aid the client, ensuring that the health professionals assigned to the case are aware of the patient's clinical and therapeutic history, as well as the understanding that the individual has frequent follow-up and is set to return to their health team when the clinical condition has been controlled<sup>54</sup>.

In the event of hospitalization, patient monitoring is performed daily on 2 fronts. For the first, the nurse keeps in touch with the family to provide support, clarification or to identify needs (pertaining to patient or family). The other front involves the prevention manager who provides liaison between the outpatient clinic and hospital, performing daily follow-up with the attending hospital physician. In hospitals which have internists, this contact is facilitated and direct. In other hospitals, support is provided by medical auditors or by the care team.

Thus, when the older adult needs to be admitted to hospital, this takes place more quickly, avoiding unnecessary procedures or admission to intensive care, ensuring post-discharge transfer<sup>32</sup> to low intensity level care settings, without the need to consult several specialists<sup>55</sup>. This all culminates in higher quality care, with a significant cost saving and positive impact on the medical loss ratio<sup>56</sup>.

### Technology features

A high-quality information system and lightweight technology is essential in helping to win the confidence of clients. Without using technology, this project cannot go forwards and thus competence is needed to use it to the full.

For example: the client, upon reaching the front-door of the health centre, may undergo facial recognition which automatically brings up their medical record at the reception desk. When receiving the client, the receptionist addresses them by name,

enquires after the family and checks the list of medicines they are using.

Another important feature is the availability of a cell phone app containing individualized information and reminders for appointments and prescribed actions. The app can, among other functions, request the client to take a photo of their breakfast and forward this to the nutritionist<sup>40</sup>, who can then check whether the meal is balanced, contains adequate dietary fibre etc.

Although extremely simple, these actions confer great trust, making the client feel protected and valued from day one.

The information system, which commences with registration of the user, is one of the pillars of the program. Via the system, the entire care journey will be monitored at each level, checking the effectiveness of actions and contributing to decision-making and follow-up. This entails a unique electronic record that is longitudinal and multi-professional, and accompanies the client from initial reception, providing an integral assessment of the individual.

The pandemic and associated lockdowns pose a number of challenges to medical practices. In the proposed model, contact with the client can be increased, since, besides face-to-face meetings, consultations via telemedicine are also incorporated<sup>57</sup>. The aim is not to replace encounters in person, but to introduce flexibility and convenience for scheduling times and days for consultations, given that neither the doctor (or nurse) nor the patient need travel to attend the session.

The drive for innovation and use of the latest technology provides closer contact of the health team with the client and family members. With a platform specifically designed for this care, the contact of gerontologists will be increased, enabling numerous individual or group-based actions involving a nutritionist, psychologist or physiotherapist, with counselling and broader contact with clients.

Besides the interdisciplinary team which delivers care directly, the model boasts a team of doctors and nurses working virtually. The GerontoLine relationship channel guarantees the users full-time

coverage 24/7. In passive mode, this receives calls from clients for guidance; in active mode, the team contacts patients on a regular basis keeping them on the care radar. Favouring this interaction, the professionals coordinating care (online) have access to the key information help in each patient's medical history.

GerontoLine differs from call centres, commonplace in traditional health services and which typically operate with poorly-trained staff who have a reputation for overuse of clumsy "gerund phrases"<sup>55</sup> and offer no support if the client's question or query falls outside the script.

With GerontoLine, which is available 24 hours a day, 7 days a week, the call is answered by trained health professionals who have access to the patient's records and, thus, have everything at their disposal to resolve problems<sup>58</sup>. Should an ambulance need calling in the middle of the night, this professional handles the whole referral process. In the event of a call during the early hours, this attendant will send a message out to the doctor, explaining the reason for contacting them. Hence, first thing in the morning, the doctor can take the first measures necessary. In other words, the patient and their family members feel protected, since they know that if needed, there is a qualified telephone service available to them.

In order for the GerontoLine to work smoothly, a comprehensive patient record is required<sup>7</sup>, which documents not only clinical issues, but also behavioural, social and family aspects, where a global view of client needs are necessary for this model. Another benefit is the epidemiological assessment instruments which are applied at the first consultation, and repeated annually thereafter, or sooner if a special need arises.

### Fee for service

The prevailing hegemonic model for payment of health services in many countries, both within public systems and private health plan market, is the fee-for-service (or pay-for-performance) model. This is characterized by stimulation of competition by users and payment for the number of services delivered

(volume). There is no use changing the payment model<sup>59</sup> without also changing the care model and vice-versa, since the two are interdependent.

Some of the flaws in the Brazilian health system (especially supplemental services) which largely affect older users are the result of the decades-old model adopted. In order to cater to the new pressing demand from society, alternative models of pay need to be implemented to break the vicious circle of fragmented consultations out of step with the social and health situation of older adults, as well as the ordering of procedures unrelated to the desired outcome<sup>60</sup>.

Performance-related pay is remuneration based on results attained over a given period. Because technical and behavioural standards required of professionals under this model are high, the payment is intended to compensate for this high level of performance.

Fee-for-service has bonus rates as high as 30% on top of base salary for the quarter. Every 3 months, an appraisal of the professional's performance is carried out based on previously established indicators. Given a total of 4 medical consultations per year should be provided under the program criterion, 1 consultation per quarter for every client in the doctor's portfolio is expected.

Professional diligence and good time-keeping are pre-requisites for awarding bonuses and are fundamental for guaranteeing the number of consultations - a key performance indicator for service operation. Another eligibility criterion for the points program for bonus awards is proper registration of information for each patient, including any hospital admissions. These stays constitute the main cost factor, where strict control by the team is key to the economic-financial success of any initiative or project.

Another basic principle is the geriatric doctor's ability to resolve cases. According to international studies<sup>38</sup>, generalist physicians can resolve 85-95% of their clientele's clinical issues. Referrals to clinical specialties are the exception. If the doctor refers no more than 10% of the clients from their portfolio

within a given quarter, this indicates good case-resolving ability and eligibility for bonus points.

The engagement of users in the program offered by the multidisciplinary team and the institutional Community Centre provides a measure of the bond with the client and of resolute capacity. Hence, an item was included that rates participation of members of each portfolio in consultations with the team gerontologists and in group activities run by the institution's Community Centre contributing further points toward bonus awards.

Medical loss ratio is the main economic-financial indicator for assessing the program, with a commensurately higher weighting attributed to this item, and for which the physician can be awarded up to 2 points on their performance appraisal. The goal is excellence in care provision, so it is only fair to incentivize the professionals as part of the win-win premise..

Other means of rewarding performance include granting time off, book purchases and funding post-graduate courses.

There is no doubt that performance-related pay models will be introduced in Brazil. Professionals in the health sector should start entertaining this notion more as a question of how this will roll out, as opposed to when or whether this will take place<sup>35,61</sup>.

### Therapeutic groups

Therapy groups are a group-based intervention strategy involving patients who have the same condition. Through discussion circles and interactive presentation, participants have the chance to better understand the disease in questions and clear up doubts, representing a self-preventive action.

The duration of these group meetings depends on the subject being addressed. In each shift, 60 minutes are dedicated to this action, convening 5 to 10 participants. Topics discussed are chosen according the actual needs of the portfolio of clients.

## Workshop leaders

Workshop leader is the term typically used to refer to the instructors of activities performed daily within the setting of institutional Community Centre. These professionals are gerontologists specialized in their field of practice.

A schedule of weekly activities is offered to the clients, who can choose those which interest them most. Clients can take part in more than one activity, depending on demand.

## Comprehensive Geriatric Assessment (CGA)

Assessment of activities of daily living (bathing, toileting, transferring, continence and feeding), instrumental ADLs (using the telephone, shopping, preparing meals, handling medications and finances) and mobility (balance, gait speed and limb strength) can contribute to generate important information for decision-taking, mapping individual protection and risk factors<sup>62</sup>.

The medical-health activities of health education can broaden its focus of attention to encompass positive dimensions of health beyond controlling specific diseases<sup>63</sup>.

Screening of hearing/vision, and help in management of the use of multiple medications—“polypharmacy” — precedes the detection of problems, contributing to care. Health habits (protective factors) include balanced diet, regular physical exercise, stimulating social interaction, occupational activity and well-being actions in the field of nutrition (cuisine for diabetes and osteoporosis, for example)<sup>51</sup>.

## Community centres

With the steady growth in the older population, some education programs focused on leisure have been developed. The first Brazilian experience of education for middle-aged and older adults was implemented by the Social Service of Commerce (SESC) in the form of community groups. These

groups emerged in the 1960s running programs centred around leisure activities. These were welfarist in nature in as far as they did not offer the tools needed for subjects to regain the desired autonomy. From the 1980s, universities began to provide educational programs for the older population and for professionals wishing to study aging-related issues, predominantly offering education, health and leisure<sup>64</sup>.

Similar centres had also been set up by health maintenance organizations following the release by the National Agency of Supplemental Health (ANS) of the Care Plan for Older Adults in Supplemental Health. The document sets out incentives to foster a change in the care logic, providing opportunities for health promotion for older adults. A resolution was also published which encourages health plan beneficiaries to take part in active aging programs, in exchange for discounts on their monthly fee<sup>62,65</sup>.

The setting up community centres is in line with the National Health Policy for the Aged (Regulation no. 2528, of 19th October, 2006). The primary goal is to recuperate, maintain or promote autonomy and independence of older individuals, as well as foster active healthy aging, with encouragement to participate and boost social interaction.

The centre offers a range of activities which contribute to healthy aging, development of autonomy and social interaction, strengthening of family ties, community involvement and prevention of situations of social risk for individuals aged  $\geq 60$  years<sup>66</sup>. The programs, besides offering physical exercise, feature cognitive training, nutritional programs<sup>67</sup>, telephone services, computing, home security, fall prevention, urinary/faecal continence, immunizations and financial management. Care with mobility of older adults, fall prevention and balance in workshops for psychomotricity, strength training, advice on choice of footwear and podology service, are all important because they help maintain independence<sup>68</sup>.

Aging requires adaptations. New learnings serve as a resource for maintaining functioning and flexibility of older adults<sup>69</sup>. Art, cultural and recreational activities are traditionally associated with community centres for older adults and represent

important sources of pleasure: general knowledge, languages, information technology, composing texts and reading, patchwork art, ballroom dancing, music, card games, dominoes, chess, meditation and sightseeing trips.

As a tool for planning aging, there is the Time Trade-Off questionnaire, which allows a negotiation between the health professional and older individual, considering risk and pleasure.

Many retirees rejoin the job market on a regular or sporadic basis, whether for pleasure or due to necessity, topping up income and stimulating social contact. In the USA, many dedicate time to voluntary projects.

Community centres can provide legal aid services, a caregiver agency and help for the housebound (support for ADLs, remote assistance and meal deliveries etc.). To this end, investment in courses for training caregivers and in communication in the care network is essential.

Also, regularly frequenting workshops allows the older person to experience a routine, which also benefits the caregiver who is freed up to engage in other activities. An annual or six-month “contract” for older adults to attend workshops, as they see fit and subject to the availability of coordinators, facilitates management.

The centres can also provide a forum for discussion of issues affecting the older individual. Aging and end-of-life warrant focus. A practical, light-hearted guide can be devised addressing frequently asked questions in relation to aging (e.g., “what is happening to me?”).

Philosophy and religion can contribute to reflection on aging and death. According to Plato, in Ancient Greece, to philosophize was akin to learning how to die. An idealist, he believed in life after death, regarding one’s demise as a passage, a liberation of the soul. For materialists, however, such as Epicurus, life was finite, making it even more valuable. One cannot live the same way when believing in such different conceptions of death<sup>70</sup>.

End-of-life, palliative care and the way we culturally cope with this stage of life were examined

in a previous study<sup>34</sup>. Would it be feasible to prepare a practical, yet sensitive, guide presenting some ideas about death? Psychology, based on a discussion about ties, can help toward this task. Letting go of perfect hair colour, eyesight and hearing, letting go of power and memory; allowing decline, accepting the “exoskeleton” (prostheses, hearing aids, glasses, implants.); finding solutions, transforming and refining. Dealing with the fears as a group is fruitful, but older adults are charged with the task of letting go, experiencing loss, saying farewell. Human loneliness is a fact and a necessary one. However, the Community Centre can help to reflect on the meaning of life, every life, by cultivating individual stories in accounts enriched with photos, scenes from films, songs, food recipes, sharing meals etc.

The human journey throughout the life span is a cultural construct that is experienced in a singular fashion. Each phase determines and predicts the possibilities of the next: we age as we live. Flexibility and resilience (ability to cope with events) differs from person to person. The experience of ageing is both heterogeneous and multidimensional, thus calling for singularity also in care plans<sup>71</sup>.

When dealing with minor stressor events in daily life, we draw on personal resources, including social resources. The importance of solidarity and sharing experiences is relevant for older adults and those around them. The quality or functioning of social support is more important for adaptation of older adults than the number of people in the network or the frequency of contact<sup>72</sup>. Indeed, the association between social support and self-care supports this notion<sup>56</sup>.

It is through this goal of valorising and respecting old age, fostering an effective embracing approach that Community Centres have found their place based on the premise that whoever works with the perspective of respecting the needs of aged individuals respects their own future.

### Birthplace of the model

The model presented was developed within the Open University for the Third Age of the University

of the State of Rio de Janeiro (UnATI/UERJ)<sup>24</sup>, a centre for studies, education, debates, research and assistance addressing issues inherent to aging, which has contributed to a change in the mindset of Brazilian society regarding its attitudes to older generations. The institution was set up 30 years ago and has gained international recognition as delivering one of the most important health programs for middle-aged and older adults<sup>68</sup>.

This initiative has also garnered international awards and been endorsed by the World Health Organization.

### The essential core elements – a summary

Devising a care model for the older population should address and implement a set of measures and actions based on the summarized checklist below:

- a. Doctors should be duly qualified in Family Medicine and Public Health and manage a fixed portfolio of clients;
- b. Institutional community centres are an important area within health clinics, playing a key role as a forum for health education, promotion and preventive actions;
- c. Functional assessment provides correct stratification and allocation of older patients into the appropriate line of care (a number of assessment tools for screening risk are available);
- d. The physician performs clinical management and the nurse acts as care manager, monitoring the health status of users and consolidating the role of contact person for support and strengthening ties;
- e. Besides the generalist doctor specialized in geriatrics and the nurse, the team consists of several gerontologists (e.g. physiotherapist, psychologist, social worker, speech-language therapist, and nutritionist) and workshop leaders (professionals engaged in integrative dynamic activities linked to the community centre program);
- f. The activities run at the community centre help nurture a sense of belonging among clients, and also promote an environment conducive for participation and health education;
- g. Only after the generalist physician has exhausted all efforts to resolve the patient's issue will they refer the case to specialists;
- h. A system of second opinion may also be employed, aiding the doctor to resolve some health problems while averting premature referral to a specialist;
- i. The number of annual medical consultations shall be defined according to the risk and specific needs of the client. It is important to reiterate that care delivery, besides the doctor, involves a nurse, who performs follow-up visits, the gerontologists (in the fields psychology, nutrition, physiotherapy, and physical educator), as well as activities at the institutional community centre. The client and their family will have a substantial number of visits during the course of the year;
- j. In the event of hospital admission, doctors and nurses are in charge of contacting the attending physician at the hospital, available to be briefed on the case, make daily visits and, ideally, seeking to ensure best care with shortest hospital stay;
- k. It is important to ensure that, even if seen at another care facility (hospital), the patient always has their registered doctor.
- l. Use of an epidemiological tool to establish the risk identified after assessment, categorized as robust, at risk of frailty, or frail;
- m. Remote care 24/7 is provided by qualified gerontologists who have access to the client's medical records. This service is called GerontoLine, a unique feature of the model;
- n. The single electronic record compiling users' health information enables individual and group strategies for prevention to be devised;
- o. Low-tech solutions must be deployed for monitoring to make the project feasible;

Another important feature is the availability of a cell phone app containing individualized information and reminders for appointments and prescribed actions.

The checklist of items outlined above is a summary of the model, which is not doctor-centred, i.e. goes beyond physician visits, and incorporates consultations defined according to patient needs based on risk determined by epidemiological tools. Allied to medical consultations, there are visits with the nurse, paired with the doctor and who, as a dyad, manage 800 clients, treating only low-complexity problems, but representing the point of contact with client and family. The hospital and specialists should be regarded as an exception not the rule. We have nothing against specialists or the hospital, but feel that the practice of these segments is excessive, an area which does not create client trust, leads to higher costs, and confers little or no benefit to the health of this client group.

In this care journey, besides visits by the doctor-nurse dyad, there are the gerontology professionals on the team who receive the clients following referral by this duo. The client's family members are also contacted to provide further information and demonstrate the care provided is comprehensive and not solely disease-centred, encompassing social and behavioural aspects, given that support and assistance from the family is crucial. All actions are logged in a quality electronic record developed for this modality of treatment. These comprehensive records are critical for the professionals in the team and especially for GerontoLine, which provides a remote service around the clock. The GerontoLine responders are trained qualified health professionals and rely on quality information from the patient record in order to take resolute actions. Upon taking a call or message on the app, these professionals have access to the medical record in question and are able to take the most appropriate action. The team also comprises professionals who run the workshops, where a host of different topics are addressed or light-hearted activities performed. In summary, the client and their family have at their disposal a multidisciplinary team of highly-

trained professionals, where the success of "care coordination" is achieved by regular monitoring plus knowledge of the client and their family through the best action and support for the patient's health.

These are the elements to be developed and that will make a difference. In fact, all the content presented to this point discloses nothing majorly new. A similar care model has been in place in the United Kingdom since 1948, and many managers acknowledge this as more efficient, resolute, and lower cost. In modern practice, the clinical management of the most prevalent diseases affecting the older population pursues a doctor-centred approach. We are in favour of good medicine, but recognize that other areas of knowledge should be included and interact in the process of integral health care.

Thus, the overarching aim of this study is to rally for reflection:

1. Why is it that all are in favour of models focused on health prevention and promotion, yet few transform this discourse into practice?
2. Why does an outdated fragmented more expensive and lower quality model persist, when a decades-old tried and tested alternative is available?
3. And why not information, technology, innovation, care quality, bonus awards, performance-related pay, and graduate-level gerontologist team? These key aspects make the difference and cuts costs!

Let us take these measures to heart.

## DATA AVAILABILITY

The entire dataset supporting the results of this study is available upon request to corresponding author Renato Peixoto Veras.

## CONCLUSION

In recent years, I have been dedicated to researching the integral care of older adults and refinement of care models. In the capacity of Director of the UnATI/UERJ and in my role as

Editor-in-Chief of the *Revista Brasileira de Geriatria e Gerontologia* (RBGG-Brazilian Journal of Geriatrics and Gerontology), beyond mere opinion, I have personally witnessed both the desire and need to consolidate the structuring of the care model for older adults.

I often receive comments of praise, yet, these are invariably tempered by the remark: “what you write is so obvious that maybe this is why it’s so hard to put these ideas into practice”. I tend to agree.

And it is precisely because I realize these reforms are increasingly imperative with each passing year that, that I am again bringing this matter to the attention of academics and opinion leaders in the health sector, because a further dose of medicine is sorely required which, it is hoped, will be able to remedy the present ailing care model.

Population aging is accompanied by new demands, and challenges the traditional care model. Advancements in technology, science and medicine offer those who embrace the modern tools for maintaining health the chance to enjoy life for longer. The social and economic transformations of the last few decades, their consequent shifts in behaviour of contemporary society – changes in eating habits, increased levels of sedentarism and stress – and growing life expectancy of the population, have contributed to higher rates of chronic diseases, posing a major public health problem. The health needs of the older population cannot be satisfactorily met until it is recognized that this stratum of society requires specific care. This makes overhauling the current health model an imperative.

Scrutiny of the national health budget reveals that the vast bulk of funds is dedicated to hospitals and equipment for performing complementary exams. Society and health professionals alike, as a general rule, adhere to a “Hospital-centric” logic, with a mind-set of only treating diseases as opposed to preventing them.

The ideal care model for the older population should be centred on identifying potential risks.

Monitoring health instead of disease will direct investment toward early prevention, resulting in a better chance of rehabilitation and reduced impact on functioning.

As a response to the older population, more actions focused on health promotion and education, the prevention and delaying of disease and frailty, besides maintenance of independence and autonomy, should be implemented.. Lastly, increasing longevity alone does not suffice. It is vital that these additional years can be lived with quality, dignity and wellbeing.

A novel approach to health care that promotes quality of life for users – albeit under the SUS or via the private sector – will entail the use of qualified well-prepared professionals, integrated care, and judicious deployment of information technology. This is the shape that contemporary resolute models advocated by leading national and international health organs should take.

If we age as we live, and where this study foresees the future of the 21<sup>st</sup> century as “grey”, then an innovative quality care system must be built, because the prevailing outdated care model will only exacerbate the current poor service and healthcare crisis – particularly for older adults, the age group placing the greatest demand and cost on the system. The importance of healthcare, promotion and prevention remains clear, as does the need to deploy technology for consultations, monitoring and information, namely, the “coordination of novel care approaches”. This implementation cannot be deferred as, after all, he who respects the needs of the aged, respects their own future!

## AUTHORSHIP

Renato Peixoto Veras – responsible for all aspects of the study, vouching for any issues related to the accuracy or integrity of any part of the study.

Edited by: Luiz Antonio Tarcitano

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