

Interview with Dr. José Eustáquio Diniz Alves

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Dr. José Eustáquio Diniz Alves is a sociologist with a master's degree in economics and a doctorate in demography from the Center for Development and Regional Planning (CEDEPLAR) at the Federal University of Minas Gerais (UFMG), and a post-doctorate from the Center for Population Studies (NEPO/UNICAMP). He was a professor at the Federal University of Ouro Preto from 1987 to 2002. Between 2002 and 2019, he was a full professor at the National School of Statistical Sciences (ENCE) of the Brazilian Institute of Geography and Statistics (IBGE), where he was coordinator of Postgraduate Studies from 2005 to 2009. He was treasurer and vice-president of the Brazilian Association of Population Studies (ABEP) between 2005 and 2008, and finance director of the Latin American Population Association (ALAP) from 2013 to 2014. He has been a retired IBGE researcher since April 2019 and contributes to the websites #Colabora, Ecodebate, and Portal do Envelhecimento. His research topics include demographic dynamics (demographic bonus, etc.), population and development, and population and the environment.

1- Your work, research, and publications point to a focus on demographic dynamics and the aging of the Brazilian population. Could you share with us the main findings that characterize this process in Brazil?

Brazil's demographic dynamics in the 21st century are and will be increasingly different from those of the previous 500 years. This is because Brazil, like most countries in the world, is undergoing a demographic transition—the process of reducing mortality and fertility rates. The demographic transition is the most important mass behavior change phenomenon in human history. Reducing mortality rates and reproductive self-determination are essential for freedom of decision, people's freedom of initiative, and overcoming prejudice, ignorance, and fatalism. The demographic transition is a phenomenon par excellence of modernity and is synchronous with the development process and the increase in urbanization rates.

In the old demographic configuration, the age structure was very young, with a high proportion of children and young people in the population and a low proportion of people of working age. Women had neither autonomy nor great professional prospects because, in addition to high maternal mortality, they had low survival times and spent most of their lives dedicated to motherhood, childcare, and domestic work. The demographic transition is therefore a necessary condition for women's empowerment, and vice versa.

The demographic transition necessarily implies a change in the age structure, with a progressive increase in the proportion of elderly people in the national population as a whole. Population aging should therefore be seen as an intrinsic part of the demographic transition and, as such, a civilizational achievement. It brings many benefits but also many challenges.

Therefore, it should always be remembered that there is no rich country, i.e., a country with a high Human Development Index (HDI),

that has high infant mortality. A drop in mortality rates from the middle of the population pyramid downwards is a prerequisite for social development.

It is also worth remembering that there is no rich country at the top of the HDI ranking with high fertility rates. The high average number of children was only justified when fertility rates were kept high enough to outweigh high mortality rates. By increasing child survival, families were able to switch from investing in the quantity of children to investing in the quality of life of the new generations.

2 - In your articles and other publications, you talk about themes such as demographic transition and window of opportunity. Could you explain a little about these terms and how they relate to the aging of the Brazilian population?

Exactly. The demographic transition generates a window of opportunity that is called the 1st demographic bonus, or age structure bonus, which occurs when the proportion of the working-age population (for

example, 15 to 64 years) increases in relation to the proportion of young people (0-14 years) and the elderly (65 years and over) in a given society.

The 1st demographic bonus is a temporary opportunity (it has a start and end date) and its use depends on how a country manages and capitalizes on this opportunity to promote economic, social, and environmental development. In general, societies grow richer and eliminate poverty and hunger if private initiative and the public sector invest in the education and health of the population and in full employment and decent work for the workforce.

The 1st demographic bonus is fully utilized when the country increases the proportion of the population in employment, with universal citizenship, social justice, and advances in economic infrastructure and science and technology. The 1st demographic bonus ends when the aging population deepens and the working-age population shrinks, as does the proportion of the employed population.

Every rich country in the world achieved a high level of social welfare during the period of the first demographic bonus. There is no rich country with a young age structure. Enrichment and aging are simultaneous phenomena. But a country can only join the club of rich countries if it gets richer before or at the same time as it gets older.

3 - You published a relevant article in Longeviver magazine on aging in Brazil and around the world, as well as other publications in the same vein. Could you share some of the particularities of aging in Brazil in relation to other countries?

Most of the world's countries are undergoing a demographic transition and are therefore also experiencing an aging population. In the world, the number of elderly people aged 60 and over was 202 million in 1950, rose to 1.1 billion in 2020, and is expected to reach 3.1 billion in 2100. The absolute growth was 15.2 times. In relative terms, the elderly population aged 60 and over represented 8% of the total population in 1950, rose to 13.5% in 2020, and is expected to reach 28.2% in 2100.

In Brazil, aging has been deeper and faster. The number of elderly Brazilians aged 60 and over was 2.6 million in 1950, rose to 29.9 million in 2020, and is expected to reach 72.4 million in 2100. The absolute growth is 27.6 times. In relative terms, the elderly population aged 60 and over represented 4.9% of the total population in 1950, rose to 14% in 2020, and is expected to reach an impressive 40% in 2100.

The number of elderly Brazilians aged 65 and over was just 1.6 million in 1950, rose to 9.2 million in 2020, and is expected to reach 61.5 million in 2100. The absolute growth is estimated at 38.3 times. In relative terms, the elderly population aged 65 and over represented 3% of the total population in 1950, rose to 9.6% in 2020, and is expected to reach more than a third (34.6%) in 2100.

The number of elderly Brazilians aged 80 and over was 153,000 in 1950, rose to 4.2 million in 2020, and is expected to reach 28.2 million in 2100. The absolute growth was a spectacular 184.8 times in 150 years. In relative terms, the elderly population aged 80 and over represented only 0.3% of the total

population in 1950, rose to 2% in 2020, and is expected to reach

15.6% in 2100. Therefore, Brazil is not only aging rapidly, but there is also a process of aging within the aging population, meaning the fastest-growing segment is those aged 70 and over, especially those aged 80 and over.

4- Your work reveals a concern with population dynamics and future trends. Could you share what the trends are for the elderly population in Brazil, especially in relation to life expectancy?

Life expectancy at birth is growing worldwide, and even more so in Brazil. In 1900, the world had a life expectancy at birth of 32 years, while Brazil had 29 years. Four decades later, the world reached a life expectancy of 42 years, and Brazil 37 years. But in the 1940s, Brazil made a leap and reached a life expectancy at birth of 50.1 years in 1950, compared to the global average of 45.7 years. For the first time, Brazil had average years of life above the international average. In the year 2000, life expectancy at birth in Brazil reached 70.1 years, while the world average was 66.3 years. The gains were spectacular

in the 20th century and continued into the 21st century.

In 2019, life expectancy at birth in Brazil reached 75.3 years and worldwide 72.8 years. However, COVID-19 caused a setback and the average life expectancy decreased in the first two years of the pandemic, reaching 72.8 years in Brazil and 71 years worldwide. However, UN projections indicate that the resumption of the increase in life expectancy has already begun in 2022 and the numbers for 2024 will already be higher than those of 2019. The outlook is promising for the coming decades. For 2100 – if there are no new pandemics, new wars, and catastrophic climate events – estimates are that life expectancy at birth will be 82.1 years worldwide and 88.2 years in Brazil.

5 - From your privileged perspective of the elderly Brazilian population, what is the biggest challenge facing the aging process in Brazil?

As the aging process advances, the 1st demographic bonus comes to an end. In other words, the window of opportunity that increased the proportion of the employed

population closes. The working-age population decreases, and the proportion of the dependent elderly population increases. With a lower proportion of active workers, the production of goods and services only increases if there are gains in the productivity of production factors. The greater productivity of capital, infrastructure, and the workforce with higher levels of education is what is called the 2nd demographic bonus. Every country with a high HDI level has experienced and benefited from the 1st and 2nd demographic bonuses. However, there is also the 3rd demographic bonus (longevity bonus), which is the possibility of creating alternatives for the productive insertion of the elderly population. Thus, Brazil's challenge is to take adequate advantage of these 3 demographic bonuses.

6 - Again, from your perspective and privileged knowledge, could you talk a little about the main successes and failures in public policies for social protection for Brazilians in general and, in particular, for elderly Brazilians?

Brazil was a poor, rural, agrarian, slave-owning country with major social problems at the time of its Independence in 1822. Over the following decades, the population and economy grew, and in the second half of the 20th century, Brazil became an urban, industrial, service-oriented, middle-income country. The challenge of the 21st century would be to solve social problems and join the club of the world's rich countries, as I showed in the book "Demografia e Economia nos 200 anos da Independência do Brasil e palcos para o século XXI" (Alves, 2022).

However, the Brazilian economy fell into the trap of low economic growth from the 1980s onwards, and since then, Brazilian per capita income has been growing below the global per capita income. In this situation, social problems have been accumulating. There is a shortage of daycare centers for children. The number of elementary school places has increased, but the quality of education has fallen far short of what is desired, and Brazil has been at the bottom of international rankings for the quality of education. Around 9 million

Brazilians aged 18 to 29 have not completed high school, and the percentage of students in Brazilian universities is well below the average for middle-income countries. Brazil has around 10 million young people aged 15 to 29 who neither study nor work (the neither-nor generation). Open unemployment currently affects around 8 million people, and the underemployed population reaches 20 million people. Of the working population as a whole, around 40% are in the informal sector. Young people are the main victims of violence and homicide rates. Young people without prospects will become elderly people without hope.

Given the deficiencies in the Brazilian social protection system, it would not be unexpected to encounter major difficulties for the elderly population. However, the majority of the elderly population in Brazil has access to the social security system, whether through the General Regime, the Social Security Regimes, the Continuous Benefit Payment (BPC), or the Rural Pension. In terms of health, there is the Unified Health System (SUS), with universal care and

numerous programs, such as the Popular Pharmacy, the National Immunization Program (PNI), the Family Health Program (PSF), etc. Clearly, there are deficiencies in the social security system and the health system, and there are difficulties in the fiscal sustainability of these programs. However, a better quality of life for the Brazilian population – for all ages – will only be achieved when Brazil manages to overcome its historical limitations, advance in the HDI ranking, and minimize its enormous social inequalities.

7 - Speaking about the central theme of our interview, which is “population aging and the health of the elderly,” what are the main demands in relation to health that you identified in your research for this age group?

In general, population aging brings with it a series of specific challenges and demands regarding the health of the elderly. Some of the main demands include:

- **Chronic Diseases:** As we age, the prevalence of chronic diseases such as diabetes, hypertension, heart disease,

osteoarthritis, osteoporosis, among others, increases. Managing these conditions requires ongoing and often complex care.

- **Cognitive Decline and Dementia:** Aging is often associated with cognitive changes, including mild cognitive decline and dementia (such as Alzheimer's disease). These conditions require specialized care and support for both the elderly and their caregivers.
- **Mental Health:** The mental health of the elderly is a major concern, as many face loneliness, depression, anxiety, and other psychological disorders. Access to mental health services and emotional support is essential.
- **Polypharmacy and Medication Management:** Many older adults have multiple medical conditions and therefore take multiple prescription medications. Proper management of polypharmacy, including the prevention of drug interactions and side effects, is crucial to the health of older adults.
- **Fall and Injury Prevention:** Falls and injuries are a significant concern among older adults and can have serious consequences, such as fractures and functional impairment. Fall prevention programs and environmental adaptations can help reduce this risk.
- **Long-Term Care:** As older adults face physical and cognitive limitations, many may require long-term care, whether at home, in a nursing home, or in a specialized facility. Ensuring access to quality, appropriate care is critical.
- **Health Promotion and Active Lifestyle:** Health promotion and an active lifestyle are critical to the well-being of older adults. This includes encouraging physical activity, a healthy diet, weight management, socialization, and participation in activities that

promote cognitive engagement.

- Access to Adequate Health Services: Access to appropriate health services, including primary, specialty, and emergency care, is crucial to ensuring that older adults receive the treatment and follow-up care they need to maintain their health and quality of life.

These are just some of the main demands regarding the health of the elderly in a context of population aging. It is essential to address these needs in a comprehensive and integrated manner to ensure the well-being and dignity of the elderly in our society.

8 - Also based on your academic experience and the data you have collected throughout your career, what would you suggest to the Brazilian Federal Government in an objective way to improve the care for the demands of the elderly population? Please elaborate on the same in relation to the Municipal Government of a city like the municipality of Formiga/MG, with almost 70,000 inhabitants.

Not only the Federal Government, but all entities of the Federation, the private sector, civil society, families, and individuals need to act together to take advantage of the remaining time of the 1st demographic bonus (age structure bonus), the 2nd bonus (productivity bonus), and the 3rd demographic bonus (longevity bonus). Brazil needs to have a growing per capita income, increasing domestic and international competitiveness, and, at the same time, take care of the environment and build a healthy and sustainable economy.

Everyone counts. There is no such thing as the best age or the best gender. All ages matter. No one should be privileged, and no one should be left behind. Rights are equal for everyone. Specific policies are valid, but they cannot run counter to the general and collective interest. Traditionally, populations are divided into three age groups: young people (the main focus of educational policies), adults (the main focus of employment policies), and the elderly (the main focus of social security and health policies). However, these groups are not opposed, stagnant, static, and

inflexible, and coexistence and public policies must consider intergenerational dynamics. There must be collaboration, sharing, and complementarity.

For example, healthy aging begins in early childhood and continues into working age and the achievements of other generations. Although chronological age is deterministic (birth certificates do not change), multigenerational relationships are transversal and occur from the bottom up and top down. Minority and maturity are not defined by date of birth, but by autonomy and the capacity for learning and understanding. All ages count, and every contribution is important because the pyramid needs integration and not segregation. Therefore, intergenerationality opposes ageism, that is, prejudice and discrimination based on age.

Population aging is inevitable. However, it is essential to create and establish synergy between genders and generations, without discrimination, aiming at the intrinsic rights of all citizens and the well-being of all people, with respect for the fundamental principles of tolerance, harmony,

kindness, justice, sustainability, peace, prosperity, and the pursuit of happiness. This applies to Brazil, Minas Gerais, Formiga, and the approximately 5,580 Brazilian cities in the 27 states of the Federation.

9 - Changing the subject again, you have had a prolific career, with many publications, teamwork, and diverse projects. Could you give our young readers some tips on how to build such a successful career? Also, as a master's and doctoral advisor, what are the characteristics you look for in your advisees?

An academic career is a lot of work and a lot of rush. I had a very interdisciplinary career. I started out studying economics at UFMG, but for a reason that was beyond my control, I switched to studying social sciences. When I finished, I decided to do a master's degree in economics and chose to focus on demography. I didn't really know what demography was, but after I learned about it, I liked it and dedicated myself to population studies. I went to work at the Minas Gerais Department of Labor, and some time later, I pursued a doctorate in Demography at

Cedeplar. I took a competitive exam to become a professor at UFOP. Some time later, I did a postdoctoral program at Unicamp. Then I took a competitive exam to be a researcher at IBGE in Rio de Janeiro and to be a professor of the master's degree in Population Studies at the National School of Statistical Sciences (ENCE), where I was the coordinator of the postgraduate program and helped found the doctoral program. My path was not linear, and I had to work hard to overcome obstacles and find different lines of research to practice my interdisciplinarity. In the end, I think I was able to give back to society what the State invested in my education. Even today, being retired, I continue to work and contribute to society in many ways.

I chose some of my master's and doctoral students, and others chose me. In general, each student is different and has certain characteristics. It is not possible to classify students according to a

common characteristic, as there is great diversity. The important thing is to have synergy between the advisor and the student and to work with seriousness, dedication, and a sense of academic and social responsibility.

10 - Finally, could you share your impressions about the value of university extension? What is your opinion about the importance of an extension project addressing population aging and the health of the elderly?

Article 207 of the 1988 Federal Constitution establishes the so-called inseparability between teaching, research, and extension. The articulation between teaching, research, and extension is very important. Since population aging will be the main characteristic of demographic dynamics throughout the 21st century, the role of universities is important in dealing with aging in the three spheres: teaching, research, and extension.

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