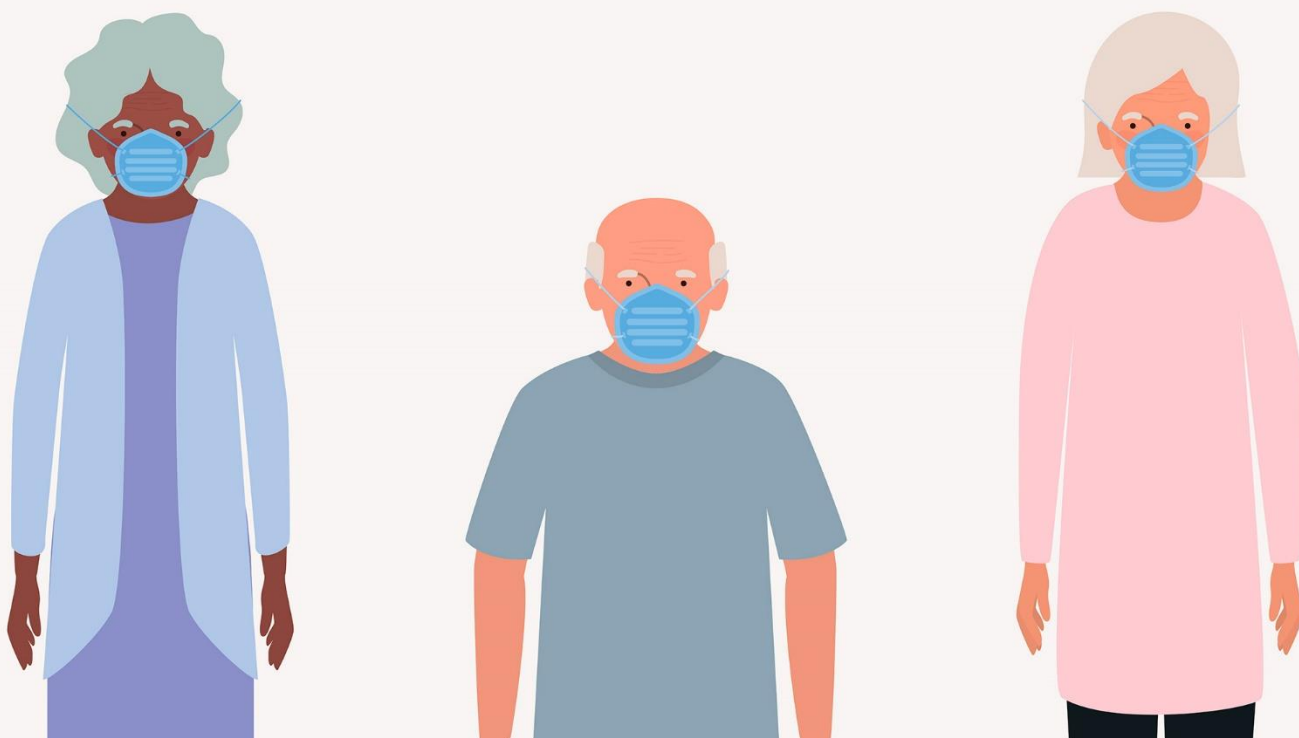


WHERE ARE THE ELDERLY? KNOWLEDGE AGAINST COVID-19

Coord: Marcelo Neri



Where are the elderly?

Knowledge against Covid-19¹

Executive-Summary

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“A man does not see the universe from the universe.

A man sees the universe from a place”

Milton Santos, Geographer

Given the worldwide dimension of the new coronavirus (Covid-19) crisis and its diverse social, economic and geographic impacts, the challenge is to think globally in order to act locally. Brazil is a country of continental dimensions and its diversity and inequality levels make the country a representative sample of the world. The lessons taken here will be useful for both rich and poor countries, the latter still at the beginning of the contagion.

According to the World Health Organisation (WHO), it is still soon to estimate the permanent effects of the Covid-19. However, evidence shows that elderly people and individuals with previous medical conditions are more prone to develop severe clinical conditions related to this sickness. Consequently, both groups are exposed to a higher lethality rate. In particular, the lethality rate for those aged 80 or more are 13 times higher than for people between 50 and 55 years old, in addition of being 75 times higher than for people between 10 and 19 years old. Therefore, to understand where the elderly are located (in space, in the income distribution and so forth), is of fundamental importance.

The main goal of this research project is to provide detailed information for policy-makers regarding the elderly in Brazil, since it is the most vulnerable group to the virus' effects. We are all policy-makers because our daily actions or inactions may mean life or death for our beloved ancients.

This text should be seen as a practical guide. It also provides a wide and friendly data set with interactive maps, rankings, tables and simulators based on statistical models at the following website: <https://cps.fgv.br/en/covidage>. Our motto is to transform public data into useful knowledge, so to allow anyone to recognize his/her own local reality through the data made available. In the end, this research project will enable any interested individual to answer the following questions: (i) Who are the elderly in Brazil? (ii) How do they live and sustain their living standards? (iii) Where do they live? The answers for these questions will hopefully help policy-makers and members of the generally public to design and embrace new actions envisaging to mitigate the most severe effects related to Covid-19 pandemic.

Who are the elderly in Brazil? – According to our estimates using the microdata from the last annual National Continuous Household Sample Survey (PNADC), in 2018 Brazil had 10.53% of its

¹ Site in English - www.fgv.br/fgvsocial/covidageEn / Site in Portuguese - www.fgv.br/fgvsocial/covidage / Research in Spanish - <https://www.cps.fgv.br/cps/bd/docs/Covidage-FGV-Social-ESP.pdf>

population aged 65 or above, an increase of approximately 20% in relation to the rate observed in 2012. The elderly are more present among the women and people of yellow and white colour, in function of the higher life expectancy and lower fertility rate for these two groups.

The elderly represents 19.3% of the heads of the household, a rate above the national average (10.53%), ratifying the hypothesis of the elderly as the main provider of the household. In addition of being heads of the household, the elderly also represents 11.5% of a group known as 'another relative in the household'. Regarding their respective position within the household, they represents almost all the grandparents of the head of the family (91.5%), in addition of representing a major share of all fathers-in-law or mothers-in-law (69%), and all mothers and fathers (61.2%). Therefore, the elderly comprises the lion's share of the vulnerable groups to the Covid-19 pandemic within the household, suggesting that social isolation policies are going to face difficulties in order to successfully control the virus also within the family. On the other hand, household with elderly people have 25.6% less people than the national average. The next step of this research, to be published soon, is going to study the individuals who live with old people in the house.

How much do the elderly earn? – Regarding the position of the elderly in the income distribution: they represent 17.44% of the top 5% richest Brazilians and 1,67% of the poorest 5%. Thus, the elderly are located at the richest economic classes: 15.54% at Class AB and 13.07% at Class C are elderly, while only 1.4% at Class E represents people aged 65 or above.

According to the Gini Index, there is 10% less income inequality among the elderly. This group is also less exposed to poverty: 2.37%, against 11.5% for the national average, or 20.29% for children between 0 and 4 years of age (using the FGV Social poverty line of R\$ 246 at today's prices adjusted by inflation). One of the problems related to this unexpected crisis is that it hurts the already fragile social fabric in Brazil after four or five years of successive increases in extreme poverty and income inequality.

The data set allow us to follow people's trajectory throughout the years. Consequently, we are able to estimate the movements around the poverty line. The elderly who were above the poverty line had a probability of 1.58% to become poor in the following year, while the average Brazilian had a probability of 5.06% to cross the same line. Moreover, 70.51% of the elderly* who were poor actually crossed the line in the other direction (becoming non-poor), while only 28.77% of Brazilian followed the same trajectory.

These expressive numbers are explained by the extensive social protection net offered to the elderly in Brazil. They represent a significant share of all Social Security pensions beneficiaries (59.64%) and BPC's (40.78% - this is a non-contributory poverty relief cash transfer program focused on the elderly and disabled poor), while almost do not receive income from the *Bolsa Família* (0.89% - the Family Grant is a Conditional Cash Transfer focused on extreme poor families with children that pays a benefit with a fifth of the value offered by the BPC). The higher homogeneity and stability among the elderly, in addition to the existence of this comprehensive safety net, simplifies the design of new actions focused on reducing the damage of the Covid-19 upon this vulnerable group.

* In this case we are considering elderly the individuals aged or above. The interactive data set we provide in our website comprises different categories of elderly, for example, individuals aged 80 or above; 85 years old or above and intermediary groups.

Regarding education, the rate of elderly people tends to be higher among individuals with less education. The elderly represents almost a third of all illiterates in Brazil (30%). Moreover, they have 3.3 less completed years of schooling than the average Brazilian. With respect to tangible assets, the rate of elderly people is higher among those live in their own house and land (13.17%), with low access to the internet (22.47% of Brazilian without access to the internet live with an old age individual), but with access to TV (12% of Brazilians with TV had 65 years of age or above, while 10.22% of Brazilian with cable TV were in this same age group).

Where do the elderly live? – The Unit of the Federation (UF) or State with the highest rate of elderly individuals among its population is Rio de Janeiro (13.06%), a kind of ‘Brazilian Florida’, followed by Rio Grande do Sul (12.95%), São Paulo (11.27%) and Minas Gerais (11.19%). Thereby, the elderly in Brazil are located in the Southeast region of the country. By contrast, States located at the North Region present the lowest rates. Roraima (5.26%), Amapá (5.75%), Amazonas (6.7%), Acre (6.9%) and Pará (7.07%) are in the bottom of the ranking in 2018.

The city of Rio de Janeiro (also the capital of the State of Rio de Janeiro) presents the highest rate of elderly people in comparison to all other Brazilian States’ capitals (14.5%). Looking at the neighbourhood level of the city using data from the last Census, Copacabana, Flamengo, Ipanema and Leblon lead the ranking of the Rio’s city neighbourhoods with the highest share of elderly people in the 2020 demographic projections. The Administrative Region of the city with the highest rate of elderly people projected in 2020 is Copacabana (27.48%). This rate would put Copacabana in second place in the ranking comprising all countries in the world. Therefore, the old Guanabara is not inhabited by tanned skin youngsters, but by tanned skin elderly individuals.

Furthermore, the metropolitan periphery of Greater Rio is also leading the ranking among all other metropolitan peripheries of the country regarding the presence of elderly in the population (11.9%). Consequently, it is expected that the municipal and state governments in Rio de Janeiro will lead the social isolation policy in relation to other regions of the country.

Porto Alegre (the capital of the State of Rio Grande do Sul) and its metropolitan periphery also present high rate of elderly people (14.05% and 10.67%), thus revealing the need of social isolation policies to be also implemented in this region of the country.³

World – The country leading the aging process in the world is Japan, with 28.4% of its population aged 65 or above. Meanwhile, the African continent and the Middle-East present the lowest rates. The United Arab Emirates (1.26%), Qatar (1.69%) and Uganda (1.99%) are in the bottom of the ranking. Our estimates show that the rate of elderly people follows the income distribution between countries. Thus, the richest territories tend to present a higher share of elderly individuals. Brazil is placed in the middle of the distribution. However, this position changes according to the income criterion we pick. In a group of 98 countries, Brazil is located at the 80th place among the bottom 20% poorest countries and 31th place among the top 20% richest countries.

The current pandemic has spread globally through networks of international travels, initially between rich people in rich places. New York, Milan and São Paulo present the highest contagion levels in their respective countries. In this regard, the modest 6.4 million international tourists who annually come to Brazil (against 50 million in Italy, 70 million in Spain, 78 million in the US and 85 million in France) become an advantage. Looking at the same problem from a different angle, during the contagion ‘boom’ only 2.5% of the Brazilians went to another country, thus

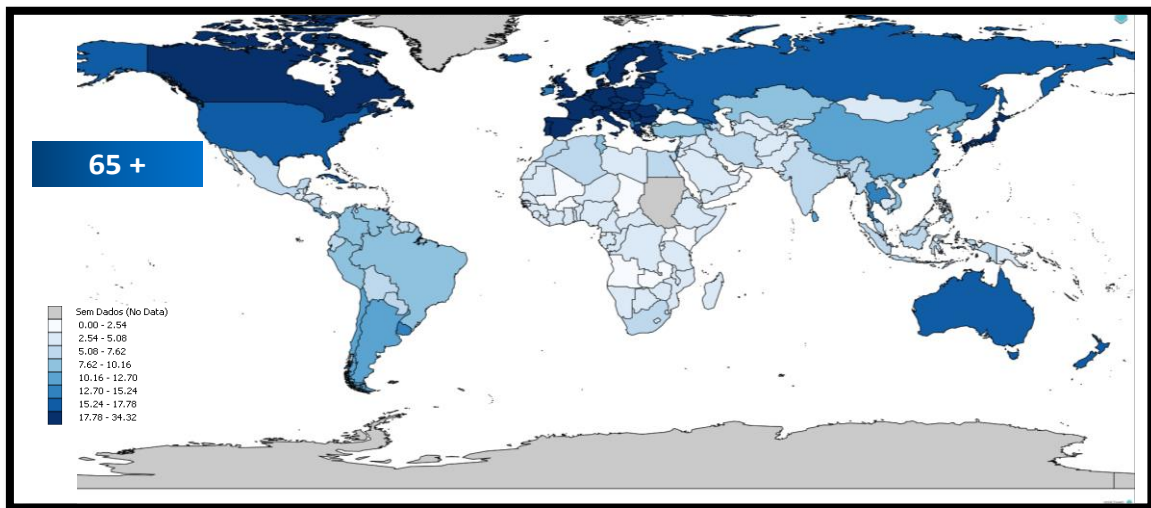
³ In Census’ data there is an inversion in the positions of Porto Alegre and Rio de Janeiro.

reducing the risk of contagion within our borders. Touristic places are specially visited by elderly individuals, and this should sound like a first alert. A mitigating factor is that the number of doctors per citizen increases with the rate of elderly individuals in the population, probably due to how both variables interact with income or human development indicators. By supporting elderly people from all income ranges, the access to the Unified Health System (SUS) is paramount in defending the population from the effects of the pandemic.

To sum up, the elderly in Brazil are located at smaller households and possess relatively higher income than average Brazilians, also with more stability and homogeneity in its distribution. These factors help us in the design and implementation of social isolation actions and protective policies to mitigate the Covid-19 pandemic effects upon this vulnerable group. The biggest challenges are found in the low educational level of the elderly in Brazil and in the low digital connectivity of this group. Simple and direct messages through analogical means appear to be the easiest manner to promote and integrate actions focused on the protection of old people in Brazil.

Maps - % of Elderly people aged 65 or above in the (a) World, (b) Brazilian States, (c) Brazilian Municipalities and (d) Administrative Regions of the Rio de Janeiro Municipality

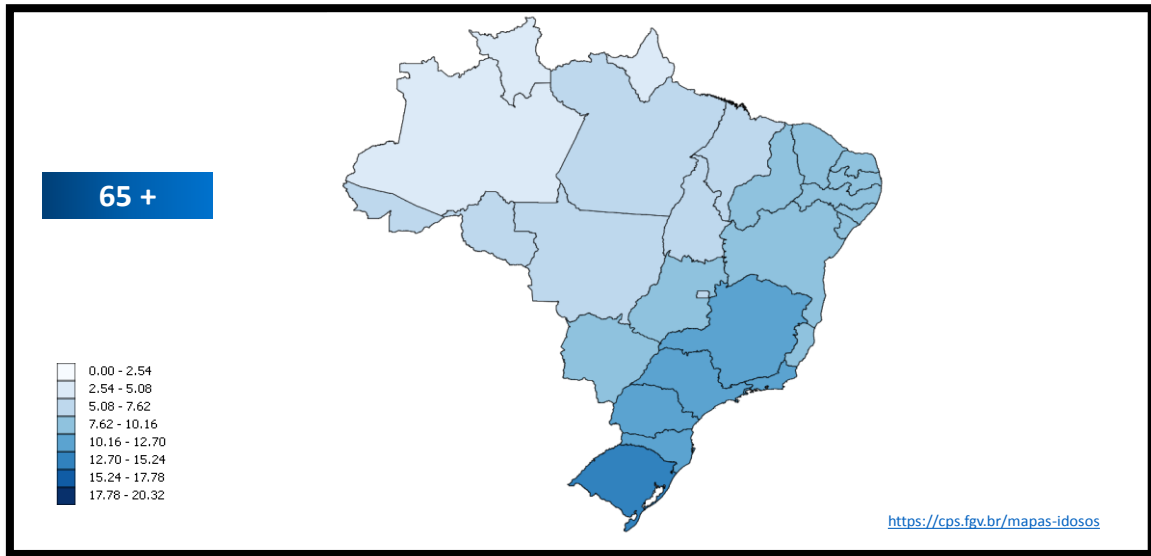
(a) 2020



Source: FGV Social using UN data

(b)

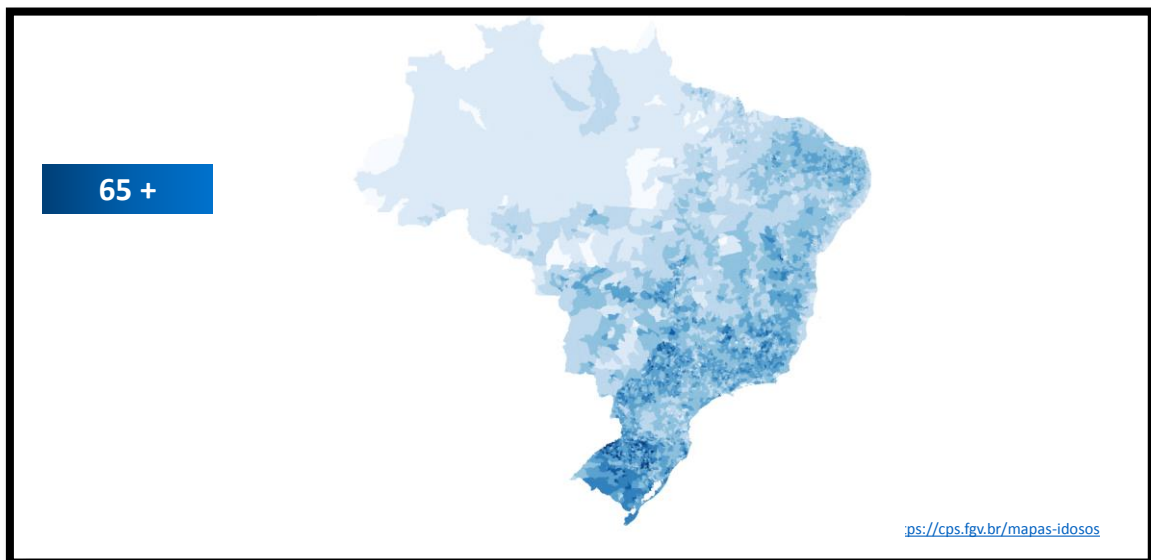
2020



Source: FGV social using IBGE data

(c)

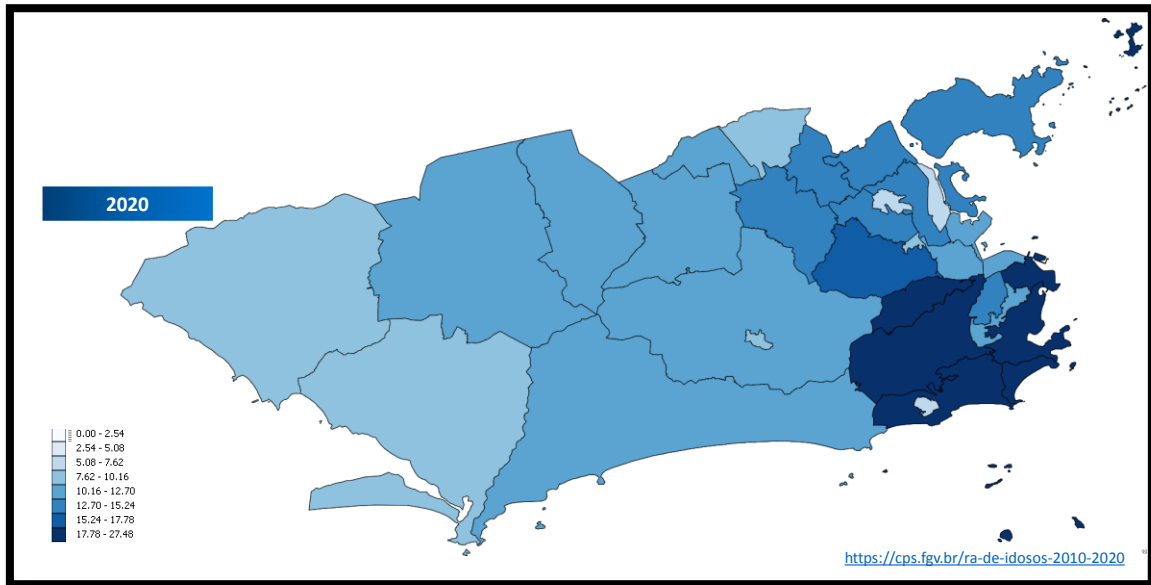
2015



Source: FGV social using DataSUS data

(d)

2020



Source: FGV Social using Beltrão and Sugahara data