

## Previous Chronic Diseases and their Relationship with COVID-19 Infection

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### Dear editor,

Due to the current global pandemic, the subject addressed is of great relevance. It is known that there is a certain urgency in the production and dissemination of scientific and epidemiological data about the new Coronavirus. Therefore, research that helps profile the population most vulnerable to this disease contributes to preventing an even greater number of deaths and sequelae resulting from COVID-19.

Although the Coronavirus infects people of all ages, complications are prevalent among two groups: the elderly and those with pre-existing comorbidities. Considering this last group, systemic arterial hypertension (SAH) and diabetes mellitus (DM) are two of the main risk factors for mortality from COVID-19.<sup>1</sup> In agreement with this data, a study on the multimorbidity of Brazilians published in *Cadernos de Saúde Pública* (CSP), showed that approximately 72% of patients admitted to the ICU for COVID-19 had previous chronic diseases compared to those who did not need this intensive care (37%).<sup>2</sup>

Consequently, there is a large contingent of people at risk of severe COVID-19 in the country, reinforcing that the profile

of comorbidities in the Brazilian population is a worrying factor that needs to be considered. In this case, the adoption of non-pharmacological interventions becomes fundamental for the prevention of severe cases of infection,<sup>2</sup> since many of the aggravating factors are preventable, and ensuring a healthier lifestyle for the population would reflect positively on the battle against the pandemic.

Therefore, epidemiological studies are important tools for characterizing the typical behavior of the disease and guiding public policy decisions in health and epidemiological surveillance.<sup>3</sup> Thus, the estimate presented is important to plan people's monitoring strategies for chronic morbidities and prevention in the fight against the new Coronavirus.<sup>3</sup>

In this context, the Brazilian Unified Health System (SUS) and primary health care, through the coordination of care by the Family Health Strategy, will continue to have an important role in mitigating social inequities in health through the prevention of virus infection and management of chronic conditions and multimorbidity during and after the pandemic.<sup>2</sup>

### Keywords

Diabetes Mellitus/prevalence; Hypertension/prevalence; COVID-19; Pandemic; Risk Factors; Epidemiologic Studies; Primary Health Care; Unified Health System

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## Reply

The transformation of data into information, from information into knowledge and from knowledge into wisdom, while not an easy task – especially in times of a pandemic – is fundamental for timely intervention. Even more so when these interventions can save the lives of countless people [the term ‘people’ alluded to here has the geometric meaning of being a subject. They are real, concrete beings and owners of life and happiness projects]. Producing science is, therefore, an act of commitment to these subjects. The protected good is life itself – our and ours!

In Brazil, since 2006, the most important research on risk and protection factors for chronic diseases has been published in the capitals of 26 states and the Federal District, totaling 27 cities (Vigitel- Surveillance of risk and protection factors for diseases chronicles by telephone survey).<sup>1</sup> The data collected in 2020, although showing progress, is still worrying:

- i. the frequency of adult ( $\geq 18$  years) smokers in the 27 cities was 9.5%;
- ii. overweight (BMI  $\geq 25$  kg/m<sup>2</sup>) was observed in 57.5% of the population, and obesity (BMI  $\geq 30$  kg/m<sup>2</sup>) was observed in 21.5% of the individuals;
- iii. the practice of physical activity in free time equivalent to 150 minutes of moderate activity per week was reported by just over a third of the population (36.8%);
- iv. the frequency of arterial hypertension reached  $\frac{1}{4}$  of the population (25.2%); and
- v. the frequency of Diabetes Mellitus was 8.2%.<sup>2</sup>

The increase in the prevalence of risk factors and chronic diseases themselves is a worrying reality, not only in Brazil but throughout the world. In 2019 alone, 54.7% of deaths recorded in Brazil were caused by chronic non-communicable diseases.<sup>3</sup> This scenario requires a collective effort – managers, health professionals and civil

society – and intersectoral, involving all levels of care and prevention. Only a broad set of policies can satisfactorily impact this scenario.

Considering this context, in 2021, Brazil launched the “Plan of Strategic Actions to Combat Chronic Diseases and Non-Communicable Diseases in Brazil 2021-2030”<sup>4</sup> with the objective of “strengthening the agenda for combating NCDs, violence and accidents at the federal, state, municipal and Federal District levels, as well as guide health promotion in health actions”.<sup>4</sup> It should be noted that the plan in question is in line with global recommendations and adopts a bold indicator monitoring system.

The launch of the plan dialogues with the need to produce knowledge about the influence of risk factors (obesity, sedentary lifestyle and smoking, for example) and chronic diseases on the clinical outcome of individuals with COVID-19, as well as the impact of the pandemic - and its control measures – on the prevalence of these risk factors and diseases. There is a two-way street with many questions to be answered.

Finally, we were honored to receive the comment regarding our text<sup>4</sup> and thank you for the moment of discussion.

**Carlos Souza**  
**Lucas Santos**  
**Jussara Baggio**  
**Thiago Leal**  
**Francisco Costa**  
**Tânia Fernandes**  
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**Anderson Armstrong**  
**Rodrigo Carmo**

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