

Tarumã case study: Telemedicine and artificial intelligence applied for reducing Cardiovascular Diseases mortality and Health cost optimization

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Abstract

Telemedicine supported by Artificial Intelligence has been an ally in the fight against cardiovascular disease. Tarumã has been using these techniques as part of a project to decrease mortality from chronic non-communicable diseases (CNCD). This study aimed to analyze the results after one year of implementation of this project. Public and private databases of health data were used, in addition to population demographic indices. It was observed a decrease of 21% in premature deaths from cardiovascular diseases and of 25% in premature deaths from circulatory diseases. In addition, between January and August 2020, the number of deaths from CNCD dropped by 45% when compared to the same period in 2019. By relating the previous years, the ANOVA analysis showed a significance $F(4,113)=14,30$ ($p = 0.001$), and the greatest difference was regarding the circulatory system diseases. Besides, the average cost per consultation decreased 60% and the reduction in the number of trips per patient represented a saving of R\$5,300.00 in fuel expenses. It can be concluded that in addition to enhancing the patient care by health services, telemedicine reduced the revenue related to health expenses and optimized the use of resources by the municipality.

Received: May 5, 2022; **Accepted:** May 17, 2022; **Published:** May 27, 2022

Biography

Alexandre is leading the internationalization of Portal Telemedicina, a Brazilian scale-up. Before that, Alexandre, after a first experience in China, worked for 10 years in Brazil for consulting on innovation finance and for the French Government: First for BPIFrance, the public investment bank, and then for Business France,

the government's internationalization agency, leading the investments from Latin America to France. During these years, with his team, he accompanied dozens of Latin companies to invest and grow in France. Alexandre is Graduated in Business Administration in France.