

Operationalization of vaccination against covid-19 in the city of Vitória - ES, a successful experience

Operacionalização da vacinação contra a covid-19, no município de Vitória - ES, uma experiência de sucesso

Operacionalización de la vacunación contra covid-19 en la ciudad de Vitória - ES, una experiencia exitosa

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Given the epidemiological scenario resulting from the pandemic caused by SARS-CoV-2, the municipality of Vitória created, in March 2020, the Municipal Contingency Plan for Human Infection by the New Coronavirus (*Plano de Contingência Municipal para Infecção Humana pelo Novo Coronavírus*).¹

The first cases of covid-19 were identified in the city of Wuhan, China, in December 2019, quickly spreading worldwide due to its virus' high transmissibility.^{2,3} In the municipality of Vitória, the first case was reported on March 13, 2020; given the worldwide pandemic, the capital of the state of Espírito Santo declared a state of public health emergency via Decree No. 18,037. The declaration allowed for a set of measures to be adopted, restricting the circulation of people and inducing social isolation as a way to contain the disease's growing rate of cases.^{1,4}

The organization of Vitória's Municipal Operational Plan for the Vaccination Strategy Against covid-19 (*Plano Operacional de Estratégia de Vacinação contra a Covid-19*) began in November 2020, being published (in the municipality's official website) on January 2021, and

constantly updated.⁵ Vitória's municipal immunization program followed the recommendations of the Ministry of Health (MS) and, according to the availability of vaccine doses, optimized the immunization of the population.⁶

The main objective of the Municipal Operational Plan is to organize the actions and strategies for the vaccination against covid-19, addressing the pre-campaign, campaign, and post-campaign phases; in addition to providing for all the storage and distribution logistics of the municipal network to contain the dissemination of SARS-CoV-2, especially in groups eligible for vaccination, reaching high and homogeneous vaccination coverage. Furthermore, the plan also anticipates the promotion of media strategies related to the dissemination of the vaccine, to the fight against fake news, and to the population's acceptance of the vaccination.⁵

Vitória's health network has 100% coverage by Primary Care and 28 vaccination rooms in operation during the opening hours of health units, from 7 AM to 6 PM. Each vaccine room has a higher-level nursing professional, auxiliaries and nursing technicians. The technical team

responsible for the municipal immunization program is composed of nurses, nursing technicians, physicians, pharmacists and administrative assistants, who lead local teams from application, storage, logistics, record information system, and monitoring of post-vaccine adverse events.

In the pre-campaign stages, in addition to adjustments of physical structures and acquisition of equipment and supplies, continuous training and updates were offered on good practices of vaccine application (conservation, dilution and application, consistent records, adverse effects, among others) to the vaccination teams, composed of municipal employees and with partnerships with higher education institutions and the private sector.⁵

In Vitória, the technological capacity available in the vaccine rooms (computerization and connectivity) was essential, since it is the first national campaign with nominal registration in the Information System of the National Immunization Program (SI-PNI), with the purpose of identifying vaccinated people, ensuring the traceability of the immunobiological materials used and monitoring vaccination coverage.⁶ In the first few weeks, it was a challenge to start the campaign; with the national system not yet enabled, data had to be registered after the actual start of the vaccine application.

Since the first priority groups of the national immunization plan are older adults in long-term institutions, people with disabilities living in inclusive homes, and frontline health workers of hospitals and emergency care, and also due to the (un)availability of vaccine for dose escalation, the choice to start vaccination actions outside health units. Vaccination began on January 19, 2021, with rotating teams within institutions and services, taking the appropriate precautionary measures and care with vaccines and other supplies to minimize vaccine losses, since the available immunobiological materials were mainly in multi-dose vials and with bottle opening time ranging from 6 to 8 hours, depending on the laboratory.^{5,7}

Vaccination for the population in the subsequent groups was through online scheduling, available on the municipal city service portal, or through the *Vitória online* app, already used for other vaccines and which, although not new to the population, was fundamental for the current epidemiological moment.

Online scheduling allowed the system to provide doses in vaccination rooms and other environments such as parks, gymnasiums, churches, and schools, promoting an agile vaccination program and providing a greater supply of doses, applied in open and well-ventilated places. Moreover, to ensure the reception of people who did not have access or had difficulties with the technological tool, scheduling in the health units was also available, with the Family Health teams, who assist in scheduling and vaccine application processes in the homes of older adults with mobility restrictions or bedridden.

Vitória was the first capital of the country to reach 50% of its population vaccinated and continues to maintain high rates of immunization.⁸ From January 1st to September 20, 2021, the municipality applied 528,009 doses of covid-19 vaccine, comprising 100% of the

population immunized with the first dose and 78.64 % with the second dose and/or single dose, considering the population over 18 years of age.⁷

In such a current high complexity scenario at global scale, in which vaccinating is the best solution to prevent covid-19, the combination of vaccination with the maintenance of prevention and control measures— such as mask use, hand hygiene, physical distancing, respiratory etiquette, diagnostic tests, contact screening, quarantine, and social isolation—becomes a great challenge when seeking to stop the spread of SARS-CoV-2 and its new variants.^{9,10}

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AUTHORS' CONTRIBUTION

Tatiane Comerio, Priscila Carminati Siqueira e

Ethel Leonor Noia Maciel contributed to the conception, design, analysis, and writing of the article.

Thiago Nascimento do Prado e Carolina Maia Martins Sales contributed to the planning, design, review, and final approval of the article. All authors have approved the final version to be published and are responsible for all the aspects of the work, including ensuring its accuracy and integrity.