

**Helena Pinheiro Benevides**<sup>1</sup>

 0009-0009-4267-5667

**Bruna Batista Schmid  
Gonçalves**<sup>1</sup>

 0009-0003-5230-1059

**Isabela Melo Pontes**<sup>1</sup>

 0009-0003-2452-8555

**Luana Maria Pinto Arcanjo**<sup>1</sup>

 0009-0006-5720-345X

**Pedro Célio de Meneses**<sup>1</sup>

 0009-0004-4155-8112

**Cristiano José da Silva**<sup>1</sup>

 0000-0003-4980-642X

<sup>1</sup> Universidade Christus. Fortaleza,  
Ceará, Brasil.

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# Health promotion and immunization in primary health care: an experience report

*Promoção da saúde e imunização na atenção primária: relato de experiência*

*Promoción de la salud e inmunización en la atención primaria: relato de experiencia*

## ABSTRACT

**Objective:** To describe and analyze the experience of the project “Viva Melhor: Immunizing Is Caring”. **Methods:** It is a descriptive study in the form of an experience report, referring to activities carried out by third-semester medical students. The educational interventions addressed vaccination against respiratory tract infections, infections and cancers related to the Human Papillomavirus, and human rabies. **Results:** It was observed that vaccination goes beyond the mere provision of immunobiologicals, requiring integrated strategies of education, dialogue, and the strengthening of bonds. **Final Considerations:** The project showed that these interventions increase vaccination uptake and strengthen more participatory, community-integrated care, being essential to address vaccine hesitancy, clarify myths, and consolidate collective co-responsibility for immunizations.

**Keywords:** *Primary health care; Health education; Immunization; Immunization programs.*

## RESUMO

**Objetivo:** Descrever e analisar a experiência do projeto “Viva Melhor: imunizar é cuidar”. **Métodos:** Trata-se de um estudo descritivo, do tipo relato de experiência, referente às atividades realizadas por estudantes do terceiro semestre de Medicina. As intervenções educativas abordaram a vacinação contra as infecções das vias aéreas, as infecções e os cânceres relacionados ao Papilomavírus Humano e à raiva humana. **Resultados:** Observou-se que a vacinação vai além da simples oferta de imunizantes, demandando estratégias integradas de educação, diálogo e fortalecimento de vínculos. **Considerações Finais:** O projeto revelou que as intervenções proporcionam o aumento da adesão vacinal e fortalecem o cuidado mais participativo e integrado à

comunidade, sendo essenciais para enfrentar a hesitação vacinal, esclarecer mitos e consolidar a corresponsabilidade coletiva em relação às imunizações.

**Descritores:** *Atenção primária à saúde; Educação em saúde; Imunização; Calendário de imunização.*

## RESUMEN

**Objetivo:** Describir y analizar la experiencia del proyecto “Viva Melhor: Imunizar es Cuidar”. **Métodos:** Se trata de un estudio descriptivo, del tipo relato de experiencia, referido a las actividades realizadas por estudiantes del tercer semestre de Medicina. Las intervenciones educativas abordaron la vacunación contra las infecciones de las vías respiratorias, las infecciones y los cánceres relacionados con el Virus del Papiloma Humano y la rabia humana. **Resultados:** Se observó que la vacunación va más allá de la simple oferta de inmunobiológicos, requiriendo estrategias integradas de educación, diálogo y fortalecimiento de vínculos. **Consideraciones finales:** El proyecto reveló que las intervenciones proporcionan un aumento de la adherencia vacunal y fortalecen un cuidado más participativo e integrado a la comunidad, siendo esenciales para enfrentar la reticencia vacunal, aclarar mitos y consolidar la corresponsabilidad colectiva en relación con las inmunizaciones.

**Descriptores:** *Atención primaria de salud; Educación en salud; Inmunización; Programas de inmunización.*

## INTRODUCTION

According to the Ministry of Health, immunization is one of the most effective public health methods for promoting community health by preventing infectious diseases and reducing disease-related morbidity and mortality. In addition, it provides indirect protection to people who cannot be vaccinated<sup>1</sup>.

In Brazil, the National Immunization Program (PNI) is responsible for vaccination policy. It provides vaccines, serums, and immunoglobulins free of charge through the Unified Health System (SUS) and coordinates annual campaigns to ensure high vaccination coverage and individual and collective protection, guaranteeing equitable access throughout the country<sup>2</sup>.

Although there is evidence that community engagement interventions can increase vaccination rates, the literature still has significant limitations in assessing the effectiveness of these interventions in different social and territorial contexts. This gap highlights the scarcity of research that analyzes, from a practical perspective, how educational and outreach initiatives operate in vulnerable areas, reinforcing the relevance of studies that explore these experiences in specific contexts<sup>3</sup>.

The study is justified by the need to analyze extension practices for promoting vaccination in vulnerable contexts, where health indicators remain unfavorable and equitable access to preventive measures remains a challenge. This scenario highlights the relevance of the work for both public health and medical education, by underscoring the potential of university extension as a tool for strengthening immunization, promoting health equity, and training future professionals committed to humanized, ethical practices aligned with the principles of the Unified Health System (SUS). In light of this, the present study aims to describe and analyze the experience of developing the project “Live Better: Immunizing Is Caring”.

## METHODS

This is a descriptive study, in the form of an experience report, regarding the activities carried out by third-semester medical students as part of the Curricular Extension/Family and Community Medicine course in the second semester of 2025.

The activities began with a meeting at the university between the six students, the academic monitor, and the supervising professor. At that time, the advisor presented the study area and the possible themes for initiatives aligned with the area's needs. Among these, the students chose the theme of immunization, a decision based on the curiosity sparked by the subject and their assessment of its importance for health promotion.

The “Live Better Project: Vaccination Is Care” was organized, and a schedule of biweekly activities for the semester was developed, covering initiatives from August through November: The first intervention was a “myths and truths” activity at a Primary Health Care (PHC) facility, focusing on

vaccination against respiratory tract infections (influenza, COVID-19, *Bacillus Calmette-Guérin* [BCG], and pneumococcal). The second activity, held at the Social Assistance Reference Center (CRAS), consisted of checking the vaccination records of the center's users and staff and administering active immunization against influenza. The third session took place at an elementary and secondary school (EEFM) and consisted of an interactive presentation on infections and cancers associated with Human Papillomavirus (HPV). The fourth and fifth interventions maintained the focus on HPV immunization, with the first held at the CRAS and the second at the PHC unit. Finally, the last activity consisted of a "myths and truths" exercise on the prevention of human rabies. The choice of vaccines was based on their epidemiological impact in Brazil, their inclusion in the National Immunization Program (PNI) schedule, their potential to prevent severe forms of the disease and deaths, and their representation of different immunization strategies, covering acute, chronic, and highly lethal diseases; this set allows for addressing health promotion across different age groups and risk contexts and, furthermore, enhances student learning by expanding their exposure to diverse epidemiological scenarios. After each activity, an oral debriefing technique was used to conclude the experience. The resources used to carry out the activities were essentially non-material, relying on verbal communication.

The study addresses the experience of conducting educational interventions for SUS users and staff in a region characterized by high social, environmental, and health vulnerability, recognized as a Special Zone of Social Interest (ZEIS), within Regional Executive Secretariat 2 (SER 2) of Fortaleza, Ceará.

Participants were selected through non-probabilistic convenience sampling. Initially, users and employees were invited to participate in the initiative, and once they accepted, the activities began. The following were considered exclusion criteria: refusal to participate, inability to understand the proposed guidelines, and failure to remain present during the activities.

Data collection was conducted through participant observation<sup>4</sup> of the health promotion activities, with systematic records of interactions with the community, including questions, challenges, and lessons learned by the students. No specific standardized instruments were used; the process was conducted flexibly and adapted to the context of each activity.

Records of participants' questions and notes were compiled in a Microsoft Excel spreadsheet, with quantification of the frequency of occurrence during discussions. In all activities, one student was responsible for taking these notes.

The study was conducted in accordance with fundamental ethical principles. Confidentiality was ensured by keeping the identities of those involved anonymous. Informed consent was obtained when necessary. In addition, measures were taken to ensure accuracy and transparency in the description of the experiment, with records kept during each activity.

## RESULTS

The intervention regarding vaccines against respiratory tract infections took place on August 26, 2025, with ten participants (nine women and one man), all adults. Doubts and concerns were recorded, primarily related to fear of adverse reactions to COVID-19 and influenza vaccines, expressed by eight of the participants, as well as the false perception that, after contracting these diseases, vaccination would no longer be necessary, expressed by two of them. Nine of the participants reported interruption of vaccination schedules or were unaware of the need for boosters.

The main challenge of the intervention was the spread of misinformation about vaccines, particularly the belief that immunization could cause serious illness and even death, leading to fear, insecurity, and resistance to vaccination adherence, as reported by nine of the participants.

At the end of the activity, two participants spontaneously went to the vaccination room to obtain additional information and update their vaccination cards. However, one user remained resistant to updating their vaccination schedule, persisting in the belief that vaccination could cause illness.

The second intervention took place on September 11 at the CRAS, featuring a waiting room activity focused on verifying and updating the vaccination cards of staff and users, revealing delays, particularly for Hepatitis B and Influenza. To increase adherence to the adult vaccination schedule, doses of the Influenza vaccine were made available and administered to seven participants (three men and four women). Two participants questioned the possibility of developing flu-like symptoms after vaccination, and initial resistance was observed, particularly due to fear of adverse reactions, such as the manifestation of symptoms similar to those of the disease targeted by the immunization. However, skilled listening and dialogue encouraged adherence to vaccination and strengthened the coordination between CRAS, the health unit, and the community.

The three subsequent activities, on September 24, October 15, and October 29, addressed infections and cancers associated with Human Papillomavirus (HPV) and were conducted in three distinct settings: an elementary and high school, the CRAS, and the PHC unit. The activity conducted in the school setting included an educational slide presentation for thirty adolescents and the provision of a space for anonymous questions. The interventions carried out in the other settings consisted of interactive discussions in waiting rooms, involving a total of thirty-one participants, including adults and the elderly, most of whom were female.

During the activities, several misconceptions were identified among the participants, such as the perception that HPV affects only individuals with multiple sexual partners, expressed by 3 of those present; that the absence of symptoms rules out the possibility of infection, by 5; and that vaccination could replace condom use, by 10. The most frequent misconception was the erroneous association between HPV vaccination and early sexual debut, a concern among

mothers of children and adolescents, which was expressed 7 times during the sessions. These misconceptions were duly clarified throughout the interventions through explanations based on scientific evidence, contributing to the expansion of knowledge, the reduction of vulnerability, and the promotion of safer sexual practices.

Furthermore, doubts were observed regarding available contraceptive methods (5 questions) and the effectiveness of condoms in preventing sexually transmitted infections and unplanned pregnancies (7 questions), which prompted guided discussions on the correct use of these methods.

Although the initial focus of the interventions was on immunization, questions emerged that went beyond this scope and fell within the broader field of sex education, particularly regarding the Human Immunodeficiency Virus (HIV). Narratives based on misinformation were identified, such as the belief that HIV could be transmitted through the sharing of personal items or through simple physical contact. Such fake news was clarified through guidance grounded in scientific evidence, enabling the correction of misconceptions, the reduction of stigma, and the strengthening of participants' knowledge regarding the actual modes of transmission and prevention of the infection.

During the initiative, it was observed that most female patients did not undergo regular preventive gynecological exams, and that some of them were reluctant to undergo both the exam and vaccination due to misinformation. As a result, the activity also highlighted the challenges faced by healthcare professionals regarding low uptake of preventive services and the spread of false information about vaccines.

At the conclusion of the activities on this topic, female and male condoms, HIV self-tests, and informational brochures were distributed as a strategy to reinforce the guidance provided and encourage preventive practices.

The final activity took place at the primary healthcare unit on November 12, 2025, and focused on the prevention of human rabies. The activity began with training for Community Health Agents (CHAs), including a "myths and truths" exercise, which identified gaps in knowledge regarding modes of transmission and beliefs about animal vectors, with difficulty distinguishing between minor and serious incidents and misconceptions about transmission by rodents. Next, sessions were held in the waiting room with patients, during which a lack of knowledge regarding post-bite procedures and similar concerns was also observed. The students provided guidance on immediate care and the need for antiserum and/or vaccine in cases of accidents. In the end, a similar level of knowledge was observed among CHWs and patients, considered low, and greater community awareness was noted, highlighting the importance of seeking care in high-risk situations.

## DISCUSSION

In the context of public health, immunization constitutes one of the most cost-effective strategies for the prevention of infectious diseases and the reduction of morbidity and mortality, serving as a central pillar of contemporary health policies. However, despite historical advances, challenges persist that compromise the maintenance of high vaccination coverage, especially in areas of greater vulnerability<sup>5</sup>. This reality was evident in the region where the activities took place, characterized by significant social vulnerability and the presence of vaccine hesitancy. The actions carried out helped strengthen ties with the community and address questions related to immunization, resulting in greater willingness among users to update their vaccination schedules. These findings corroborate those of Xie et al.<sup>3</sup>, who point to an increase in demand for vaccines as a result of interventions focused on community engagement, reinforcing the relevance of health education initiatives among the population.

The findings of the initiative on immunization against respiratory tract infections are consistent with the literature, highlighting that vaccine hesitancy remains a significant factor in low vaccination adherence. The influence of misinformation and fear of adverse events on the continuity of vaccination schedules, observed among participants, has already been widely described in national studies, linking various factors contributing to vaccine hesitancy, such as missed doses, fear of adverse effects, misinformation, and lack of knowledge about vaccines<sup>6</sup>.

Regarding preventive immunization against HPV, Santos et al.<sup>7</sup> highlight that the vaccine made available by the Unified Health System, through the National Immunization Program (PNI), targets four types of HPV primarily associated with cervical cancer and genital warts. However, vaccination coverage remains below the recommended target of 80%. This scenario is consistent with the results observed in initiatives addressing the topic of HPV, even when conducted in different contexts. The authors also report findings from a study conducted in Ohio, which highlighted resistance to vaccination among parents and guardians—a situation similar to that identified in this study. In the observed study, approximately 80% of guardians assume that adolescents are not sexually active. This perception, combined with misinformation, contributes to vaccine hesitancy and negatively impacts immunization uptake.

In initiatives aimed at preventing human rabies, significant gaps persisted in the community's knowledge regarding the main animal vectors, immediate actions following exposure, and the importance of annual vaccination of dogs and cats. These findings are consistent with the literature, which identifies misinformation and lack of knowledge about prophylactic measures as key factors contributing to delays in seeking care and failures in human rabies prevention, as the disease's fatality rate is strongly linked to improper immediate post-exposure management<sup>8</sup>. Raising awareness regarding recommended

actions in cases of bites involving potentially rabid animals is also considered of great importance<sup>9</sup>.

The findings of the study by Lima et al<sup>10</sup> are consistent with the results observed in the health promotion initiatives of this study, as they highlight the persistence of gaps in the vaccination schedule even among young populations linked to structured environments, such as sports and educational institutions. Similarly, health promotion initiatives helped identify incomplete vaccination schedules, particularly for vaccines associated with greater hesitancy, such as HPV and COVID-19, while also facilitating the updating of vaccination records through educational interventions based on accessible language, active listening, and building rapport with participants. These findings corroborate the relevance of integrated health education strategies and facilitating access to services as central tools for expanding vaccination coverage, combating misinformation, and strengthening immunization as a practice of self-care and collective protection, contributing to the prevention of preventable diseases and the strengthening of PHC actions.

## FINAL CONSIDERATIONS

Among the study's limitations are its case report design, convenience sampling, the absence of standardized assessment tools, and the limited time available for implementation, which restricted the generalizability of the findings and the ability to conduct longitudinal follow-up of participants.

The development of educational activities within the PHC context demonstrated that vaccination promotion goes beyond simply providing vaccines, requiring integrated strategies for education, dialogue, and strengthening ties between the community, students, and health professionals.

The project revealed that well-planned educational interventions, grounded in scientific evidence and sensitive to the population's perceptions and barriers, not only promote increased vaccination uptake but also strengthen care that is closer, more participatory, and integrated into the community, being essential for addressing vaccine hesitancy, clarifying myths, and consolidating collective shared responsibility regarding immunizations.

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To the Christus University.

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**Corresponding Author**

Helena Pinheiro Benevides  
[helenapbenevides@gmail.com](mailto:helenapbenevides@gmail.com)

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**Associate Editors**

Bruno Neves da Silva, Genilton da Silva Faheina Junior e Sofia de Moraes Arnaldo

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