

**PROFILE OF CHILDREN AGED 0 TO 18 MONTHS VACCINATED IN A
SPECIALITY CENTER****PERFIL DE CRIANÇAS DE 0 A 18 MESES VACINADAS EM UM CENTRO DE
ESPECIALIDADES****PERFIL DE LOS NIÑOS DE 0 A 18 MESES VACUNADOS EN UN CENTRO DE
ESPECIALIDADES**

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ABSTRACT

Objective: to describe the profile of children aged 0 to 18 month who use a vaccination service. **Method:** this is a descriptive research with a quantitative approach, carried out with 234 parents and guardians of children aged 0 to 18 months who used the vaccination servisse of a Speciality Center, from JIuy to September 2019. The data were analysed in the Stara program version 15.0. **Results:** the forms were mostly answered by the mother and the children's avarage age was 7.0 months. **Conclusion:** despite the fact that most vaccine portfolios are up-to-date according to age, the theme in question, due to its relevance to public health policies, should continue to be monitored, aiming to expand access to vaccines and also the reach of vaccinated children.

Descriptors: Vaccination; Child; Research; Primary Health Care.

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RESUMO

Objetivo: descrever o perfil das crianças de 0 a 18 meses que utilizam um serviço de vacinação. **Método:** Trata-se de uma pesquisa descritiva com abordagem quantitativa, realizada com 234 pais e responsáveis de crianças de 0 a 18 meses que utilizaram o serviço de vacinação de um Centro de Especialidades, no período de julho a setembro de 2019. Os dados foram analisados no programa Stata versão 15.0. **Resultados:** os formulários foram, em sua maioria, respondidos pelas mães e a média de idade das crianças foi 7,9 meses. **Conclusão:** apesar da maior parte das carteiras vacinais estarem atualizadas de acordo com a idade, a temática em questão, pela relevância que possui para as políticas públicas de saúde, deve seguir sendo monitorada, visando ampliar o acesso às vacinas e também a abrangência de crianças vacinadas.

Descritores: Vacinação; Criança; Pesquisa; Atenção Primária à Saúde.

RESUMEN

Objetivo: describir el perfil de los niños que utilizan un servicio de vacunación. **Método:** se trata de una investigación descriptiva con enfoque cuantitativo, realizada con 234 padres y tutores de niños de 0 a 18 meses que utilizaron el servicio de vacunación de un Centro de Especialidades, de julio a septiembre de 2019. Los datos fueron analizados en el Versión 15.0 del programa Stata. **Resultados:** los formularios fueron respondidos mayoritariamente por las madres y la edad promedio de los niños fue de 7,9 meses. **Conclusión:** a pesar de que la mayoría de los portafolios de vacunas de actualizan por edad, el tema en cuestión, por su relevancia para las políticas de salud pública, debe seguir siendo monitoreado, con el objetivo de ampliar el acceso a las vacunas y también el alcance de los niños vacunados.

Descriptores: Vacunación; Niño; Investigación; Atención Primaria de Salud.

INTRODUCTION

The immune system and its response to pathogens is divided into two parts, the innate and the adaptive, each with its own components of distinct immune cells and soluble mediators.¹ In addition to the immunity developed when coming into contact with a pathogen, which activates the production of antibodies through the immune system, this can also be developed through vaccination. Vaccination stimulates an immune response that gives the body the ability to develop a rapid defense against it if encountered again.¹

With a view to preventing the main childhood illnesses such as pneumonia,

diarrhea, meningitis, chickenpox, among others, immunization has achieved satisfactory results in many countries, guaranteeing the promotion and protection of individuals.² In Brazil, the Ministry of Health offers a large amount free of charge of vaccines promoted according to the vaccination calendar or in campaigns, applied and scheduled for a date according to the calendar of the first year of life, in accordance with the rules of the National Immunization Program (PNI), which has been recognized as a of the most important and fundamental actions in Public Health.³

Vaccination is a complex but fundamental action to prevent vaccine-

preventable diseases, such as urban yellow fever, which was eliminated in 1942, smallpox in 1973, and polio in 1989, and since 2009 there have been no cases of rubella.⁴

The International Committee of Experts of the Pan American Health Organization (PAHO) granted Rubella and Measles elimination certificates in 2015 and 2016, respectively. In 2017, neonatal tetanus was eliminated as a public health problem and the number of cases of accidental tetanus decreased.⁵ However, low vaccination coverage in the Brazilian scenario worries health authorities and health professionals about the risk of these cases returning. diseases.⁴

In this context, the challenge is to vaccinate the population, providing information about the advantages of immunization, increasing vaccination coverage in basic health care in municipalities, through adequate guidance. Knowing this, the entire population needs to have their vaccination schedule up to date and, with regard to children, it is essential for parents or guardians to provide information and active participation in this health care action.

Considering these assumptions, the present study aims to describe the profile of children aged 0 to 18 months who use a vaccination service in the city of Pelotas, in RS.

METHODS

This is a descriptive quantitative research, carried out with parents and guardians of children aged 0 to 18 months who used the vaccination service at the Specialties Center in a city in southern Brazil, from July to September 2019. Considering- If around 100 children pass through the service per month, and the estimated time for data collection was three months, the target population was estimated at 300 children. Respecting the descriptive nature of the study and the variations that the proportions of the characteristics studied could suffer for the purposes of calculating sample size, a prevalence of 10 to 50% was used. Using the proportions module of the OpenEpi program (open source epidemiological statistics for Public Health), the largest sample size required was 234 children.

In June 2019, a pilot study was carried out, with 24 children, to test the form and collection logistics. Data were obtained through a structured form containing questions about sociodemographic characteristics, reasons that lead those responsible for vaccinating children, post-vaccination guidelines, and the reasons that lead those responsible for choosing the specialty center to immunize children.

Data collection was carried out by a previously trained nursing student. Upon receiving the family member, responsible

for the child to be vaccinated, at the Specialties Center, they were informed that data was being collected for research into the vaccination profile. Then, individuals expressing interest were directed to a reserved room, and after receiving the necessary guidance, they signed the Free and Informed Consent Form and responded to a form directed by the researcher, through an interview. After completing this, participants were directed to the care they needed at that moment. As this was a study with a convenience sample, upon reaching the necessary size, invitations to participate were closed.

The data were coded, entered into the EpiData version 3.1 program, and analyzes were carried out using the Stata version 15.0 program. To describe the sample, the absolute number and relative frequency were used for categorical variables, and mean and standard deviation for numerical variables.

The study was carried out in accordance with Resolution of the National Health Council (CNS) No. 466, of December 12, 2012, and approved by the Ethics Committee under opinion number 3,273,780.

RESULTS

During the period selected for the study, 234 guardians of children aged 0 to 18 months who used the vaccination service at the aforementioned Specialties Center were interviewed. The majority of participants were characterized as being mothers (88.5%), with two thirds of those responsible having completed high school. In relation to children, the average age was 7.9 months (+4.4).

Table 1 presents the children's health characteristics; the majority of guardians classified the children's health as excellent (47.0%) and very good (42.3%). When asked about the child's hospitalization in the last 12 months, 7.7% responded yes and in relation to consultations due to illness in the last month, 19.4% had a positive answer, with half of these consultations being through the Unified Health System (SUS).

Table 1- Health characteristics of the sample of children aged 0 to 18 months who use the vaccination service at a specialty center in Pelotas/RS, 2019

| Variables | N (%) |
|--|------------|
| Considers the child's health | |
| Great | 110 (47.0) |
| Very good | 99 (42.3) |
| Good | 21 (9.0) |
| Regular | 4 (1.7) |
| Bad | 0 (0.0) |
| Hospitalization in the last 12 months | |
| No | 216 (92.3) |
| Yes | 18 (7.7) |
| Sickness consultation in the last month | |
| No | 188 (80.6) |
| Yes | 45 (19.4) |

*In some variables, the number of observations does not correspond to 234, due to the lack of data.

The reasons for vaccination are for health reasons, 98.7% for care and presented in Table 2, 99.1% of those 68.8% because it was mandatory. responsible said they vaccinated the child

Table 2- Reasons that lead those responsible to vaccinate children aged 0 to 18 months who use the vaccination service at a specialty center in Pelotas/RS, 2019

| Variables | N (%) |
|-------------------|------------|
| Health | |
| No | 2 (0.9) |
| Yes | 231 (99.1) |
| Careful | |
| No | 3 (1.3) |
| Yes | 230 (98.7) |
| Obligation | |
| No | 73 (31.2) |
| Yes | 160 (68.8) |

*In some variables, the number of observations does not correspond to 234, due to the lack of data.

With regard to vaccination, the prevalence of up-to-date immunization according to age was observed; the highest prevalences were for Hepatitis B (99.6%),

followed by BCG, MMR and Influenza (99.1% for both). The lowest prevalence of up-to-date vaccination for age was the Pentavalent vaccine (88.7%) (Table 3).

Table 3- Prevalence of up-to-date vaccinations according to age, in children aged 0 to 18 months who use the vaccination service of a specialty center in Pelotas/RS, 2019

| Vaccine | N (%) |
|---------------------------------------|--------------|
| Pentavalent | |
| No | 26 (11.2) |
| Yes | 207 (88.8) |
| Polio | |
| No | 20 (8.6) |
| Yes | 213 (91.4) |
| BCG (bacillus Calmette-Guérin) | |
| No | 02 (0.9) |
| Yes | 231 (99.1) |
| Hepatitis B | |
| No | 01 (0.4) |
| Yes | 233 (99.6) |
| Triple Viral | |
| No | 02 (0.9) |
| Yes | 231 (99.1) |
| Influenza | |
| No | 02 (0.9) |
| Yes | 231 (99.1) |
| Meningo C | |
| No | 11 (4.7) |
| Yes | 223 (95.3) |
| Rotavirus | |
| No | 08 (3.4) |
| Yes | 226 (96.6) |
| Pneumo 10 | |
| No | 12 (5.1) |

| | |
|---------------------|------------|
| Yes | 222 (94.9) |
| Yellow fever | |
| No | 03 (1.3) |
| Yes | 231 (98.7) |

*In some variables, the number of observations does not correspond to 234, due to the lack of data.

Table 4 presents the distribution of characteristics related to vaccination. The majority of those responsible said that, at least once, they tried to vaccinate their children and failed (39.8%), that the last vaccination, prior to the date of the interview, was at the Specialties Center (61.3%), reported having received guidance on post-vaccination care (95.3%) and that

their children had some post-vaccine reaction (64.8%). Regarding the reasons for taking the child to be vaccinated at the Specialties Center, the majority mentioned the lack of vaccines in Basic Health Units (UBS) (41.0%), followed by the answer quality of service (27.8%).

Table 4- Distribution of characteristics related to vaccination, in children aged 0 to 18 months who use the vaccination service of a specialty center in Pelotas/RS, 2019

| Variables | N (%) |
|---|--------------|
| Tried to get vaccinated and failed | |
| No | 93 (39.9) |
| Yes | 140 (60.1) |
| Location of last vaccination | |
| Maternity | 7 (3.0) |
| Health center close to home | 69 (29.6) |
| Another health post | 2 (1.0) |
| Private clinic | 10 (4.3) |
| Specialty Center | 143 (61.1) |
| Other | 2 (1.0) |
| Guidance on post-vaccination care | |
| Did not receive | 11 (4.7) |
| It received | 223 (95.3) |
| Have you had any post-vaccine reactions? | |
| No | 82 (35.2) |

| | |
|---|------------|
| Yes | 151 (64.8) |
| Reason for preference Specialty Center | |
| Centrality | 39 (16.7) |
| Quality | 65 (27.8) |
| Lack of vaccine at clinics | 96 (41.0) |
| Yellow fever | 34 (14.5) |

*In some variables, the number of observations does not correspond to 234, due to the lack of data.

DISCUSSION

Regarding the profile of children aged 0 to 18 months who used the Specialties Center's vaccination service, the results indicated corroborate a study carried out, in which high vaccination coverage was evidenced. On the other hand, when compared to the findings of studies carried out in different regions of Brazil, there was higher vaccination coverage in the present study.⁶

Regarding the education of the participants, most of them declared having completed high school or higher education, thus allowing better knowledge about the importance of immunization for children. Over time, the number of people who recognize the element of protection against diseases and the importance of vaccines has been growing.⁷ The literature points out that when mothers or guardians have such knowledge about vaccines, this has a significant positive impact on care. to keep the vaccination record updated.⁸ When seeking to understand the reasons that lead

those responsible for children aged 0 to 18 months to vaccinate them, the study participants reported carrying out this act due to issues related to health, care, and also due to obligation.

However, a study provides data that 26% of people interviewed have doubts about vaccination, especially with regard to diseases that are prevented through immunization, the possibility of reactions and consequences of non-vaccination, the vaccination schedule and about the immunological agents that make up each vaccine.⁷ This fact leads to reflection on the importance of intensifying training, expanding vaccination coverage and the population's understanding of the importance of the topic.

It was also found that parents and guardians of children face difficulties in finding immunobiologicals for their children in Basic Health Units (UBS), causing them to have to travel to the Specialty Center. On the other hand, there is a need to improve communication skills between health

professionals and parents/guardians, with a view to meeting the demands for immunobiologicals for children.

Consequently, this becomes one of the main reasons why those responsible chose the aforementioned location for vaccination, as they can see the Specialties Center as an environment that always has a large availability of vaccines. This fact goes against what is recommended by the Ministry of Health that each UBS must be responsible for its target population, therefore the essential quantity of immunological patients must be calculated to provide such coverage.⁸

With the parents' reports, the need to improve the organization and supply of vaccines in Basic Health Units was perceived. Even with all the difficulties encountered in vaccinating children, there is a great concern in updating the vaccination calendar, corresponding to data found in another study, in which family members recognize the importance and purpose of immunization, aiming to prevent communicable diseases.⁸

Regarding post-vaccination adverse reactions, when asked, family members and guardians reported that the children did not present serious adverse events. It is worth noting that post-vaccination guidance is offered through explanations about precautions and possible adverse reactions related to each type of vaccine. Furthermore,

it is noteworthy that any adverse effects are smaller than the individual and collective benefits generated by vaccination. Thus, to minimize false beliefs and rumors about the effectiveness and adverse effects of vaccines, visibility and transparency of surveillance and control systems is necessary, encouraging the notification of any perceived effect.⁹

The literature, especially the manuals from the Ministry of Health, provide some conduct and routines for vaccination rooms, which help health professionals through protocols, such as the epidemiological surveillance manual for post-vaccination adverse events, released in 2020.¹⁰ In a similar study, although there is a consensus that family members and guardians should be guided regarding trust in the immunobiological and its safety, there is a need for protocols on post-immunization care. Therefore, the practice of surveillance conduct is recommended with regard to Post-vaccination Adverse Events, as continuing education is considered extremely important.¹¹

Child vaccination in the first years of life is essential for the prevention of various communicable diseases and is a measure of child health care, which is why it is essential in reducing child mortality rates. The main findings of this study highlight the importance of immunization for promoting and protecting health in childhood. Although

most vaccination records are up to date, there was a need to resolve the difficulties faced by those responsible for vaccinating children, indicating the need to implement a strategy to facilitate access to immunization.

Parents look for the Specialty Center due to its centrality, quality of services and availability of vaccines. It can be considered that immunization achieved a very good vaccination coverage rate in all immunobiologicals. The topic in question has a lot to be analyzed due to its relevance to public health policies, therefore, it is believed that more research on the subject in question is necessary.

This study made it possible to identify the need to improve children's vaccination strategies in basic health units, expanding the distribution of vaccines according to the demands in these units, contributing to identifying the difficulties faced by parents in immunizing their children.

Among the limits of the study is the fact that it was carried out in a specialty center recognized in the municipality as a place for administering vaccines. It is believed that if the collection were carried out in UBSs in the city, the results could be different, especially regarding the adherence of parents/guardians to childhood vaccination.

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