

**LOW VACCINATION
COVERAGE OF
CHILDREN IN OSVALDO
CRUZ: A VIEW FROM
THE PERSPECTIVE
OF CLINICAL
MANAGEMENT**

Zilda Lopes Mio

Fabiana Moreira Ferreira Bechara

Juna Flávia Scramim

Marisa Aparecida Brigo Ortiz

Marisa Ramos Rodrigues da Siva

Maria Rita Evangelista Vicente

Giovana Brito Bertolini Firmino

<http://lattes.cnpq.br/8491323926343261>

Meiriele Mazzo

Ivonete Fernandes Francisco

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INTRODUCTION

The work consists of not producing a reflection, from the perspective of the Management of Clinic of low vaccine coverage in children under two years of age in the municipality of Osvaldo Cruz/SP.

This article analyzes the local and regional health service, in addition to presenting the lines of caution of SUS (Hypertension, Diabetes, Pregnant, childbirth, puerperium and child) and define which will be prioritized; in addition to listing the problem, it proposes an intervention, monitoring and evaluation plan for intervention.

The content is covered by the following instruments: SWOT Matrix

SWOT Analysis or SWOT Analysis (Strengths, Opportunities, Weaknesses and Threats in Portuguese) is a strategic planning technique used to help people or organizations to identify strengths, weaknesses, opportunities, and threats related to competition in business or planning in projects. is intended to specify the objectives of scratches of business or project, and identify you factors internal and external factors that are favorable and unfavorable to achieving these objectives. (...) The SWOT analysis is a tool used to perform analysis of scenarios (or environments), as a basis for management and strategic planning of a corporation or company

5W2H method

The 5W2H is basically a checklist of certain activities that need to be developed with as much clarity as possible by the company's employees. It functions as a mapping of these activities, where it will be established and what will be done, who will make O what, in which period of time, in which area of the company and all the reasons why this activity must be done

and Dashboard

(...) It is an important tool for the formation of an organizational culture that plans,

executes, monitors, evaluates and, if necessary, proposes actions for correction or improvement in a timely manner. Your assessment matrix or your dashboard on-board must be prepared considering the objective, the target, the indicator, the source of verification. (CANABRAVA; Claudia Marques. and OLIVEIRA, Danilo Carvalho, p. 14)

ATTENTION NETWORK HEALTH STRUCTURE OF PUBLIC HEALTH IN OSVALDO CRUZ/SP

The municipality of Osvaldo Cruz, with a population estimated by the IBGE /2019 of 32,879 inhabitants, is part of the DRS IX – Marília (RRAS 10), forming part of the CIR Adamantina.

All the units below are linked to the Municipal Health Department and provide exclusive health services through the SUS (Unified Health System):

- Municipal Secretary of Health of Osvaldo Cruz (with Sanitary Surveillance and Surveillance Epidemiological);
- Central Regulation/Scheduling;
- 1 Osvaldo Cruz Health Center I
- 1 Basic Unit of Health;
- 6 Family Health Units, totaling 7 Family Health Strategy Teams;
- 1 Pediatrics and Vaccination Center, with a Human Milk Collection Station “Simone Turra”;
- 1 Specialized Dentistry Center (CEO type I);
- 1 CAPS;
- 1 therapy residence.

HEALTH REGION OF CIR ADAMANTINA

Health center I provides primary care and medical specialties (Ophthalmology, Gynecology, Cardiology, Surgery Vascular, Orthopedics) in addition in services in the field of Physiotherapy (Centro Municipal de Fisioterapia), Nutrition, Speech Therapy, Psychology, Dentistry and Pharmacy (Pharmacy Municipal).

Family health units and basic health units provide basic medical/nursing care. The Pediatrics Center/Vaccination Center provides assistance in the Pediatrics area, and a Human Milk Collection Station that advises patients on breastfeeding and collects human milk. In this Unit there is also the Municipal Vaccination Center, which coordinates, stores and carries out immunizations.

The Dental Specialized Center (CEO) performs basic and specialized procedures in addition to molding and delivering dental prostheses.

The municipality has a CAPS unit, not authorized by the Ministry of health, which performs calls in patients affected per disorders mental referred from Primary Care, in addition to patients admitted to the Therapeutic Residence.

The Residence Therapy it has 10 patients internal, what are attended for the team CAPS and the Basic Health Unit in the region that belong. Patients enter the SUS through Primary Care units and/or the Emergency Room Help of the Santa Casa place; and when necessary are forwarded to the specialized services in the municipality or in the reference.

The municipality of Osvaldo Cruz has 01 hospital (Irrmandade da Santa Casa de Misericórdia) that provides outpatient care, emergency care and hospitalization to the SUS and private / health insurance. The SUS resource is transferred through the Agreement.

The region in adamantine, it is formed per 10 counties, being what two counties (Osvaldo Cruz and Admantina) are larger (about 30 – 35 thousand inhabitants) and the rest (Inúbia Paulista, Sagres, Salmon, Lucélia, square, Mariapolis, Pacaembu and Florida Paulista) has a population with a smaller number of populations.

The region account with 5 Santa Casa (1 in Osvaldo Cruz and 1 in adamantine, 1 in Lucélia, 1 Pacaembu and 1 Florida Paulista, the last two small), the other municipalities only Basic Unit of Health.

Santa Casa de Osvaldo Cruz provides emergency care, outpatient care and hospitalizations in the 4 clinics for the municipalities of Osvaldo Cruz, Sagres and Salmourão.

Santa Casa de Lucélia, Pacaembu and Florida Paulista provide emergency care for their own citizens.

Santa Casa de Adamantina provides emergency care, outpatient care and hospitalizations at the 4 clinics for Inubia Paulista, Lucélia, Mariópolis, Pracinha, Florida Paulista, Pacaembu and Adamantina, in addition to having ICU beds and chairs for hemodialysis.

The reference in the region (medium and high complexity) is mainly AME – Tupã and HC Marília (still by having some specialties answered at Santa Casa in Tupã, Santa Casa de Marília, Universidade “Hospital de Marília” and others).

The lack of structure in the hospitals, the lack of resolution of the services provided, the large number of referrals for treatment and surgeries of medium complexity to the reference of high complexity, are the problems of the hospitals in the Adamantina region. All SUS health establishments in the region have an open door to any type of user,

PROBLEM (RELATION OF AS CARE LINES)	MAGNITUDE	TRANSCENDENCE	VULNERABILITY	COST	TOTAL L
<i>Problems in the Care Line Child</i>	2	3	1	3	9

Table 1- Prioritization of Problems.

and these units are considered gateways to the SUS (Unified Health System).

LINES OF CAUTION

4 lines of care were analyzed:

1 - Hypertension;

Arterial hypertension or high blood pressure is a chronic disease characterized by high levels of blood pressure in the arteries. It happens when the maximum and minimum pressure values are equal to or exceed 140/90 mmHg (or 14 by 9). High blood pressure causes the heart to have to exert greater effort than normal to make the blood be distributed correctly in the body. High blood pressure is one of the main risk factors for the occurrence of stroke, heart attack, arterial aneurysm and kidney and heart failure. (Ministry of Health)

2 - Diabetes Mellitus;

Diabetes is a disease caused by insufficient production or poor absorption of insulin, a hormone that regulates blood glucose and provides energy for the body.

Diabetes can cause increased blood glucose and high rates can lead to complications in the heart, arteries, eyes, us kidneys and us nerves. In cases most serious, O diabetes can lead to death. (Ministry of Health).

3 - Pregnant women, childbirth and postpartum women; and

It is a model of care that guarantees women and children a humanized and quality assistance, by expanding access and improving the quality of prenatal care, linking the pregnant woman to the

reference unit and safe transportation, the implementation of good practices in labor and birth care, including the right for the woman to choose a companion during childbirth, health care for children aged 0 to 24 months. (Maternal and Child Care Line - SC).

4 - Child

Promote and protect the health of the child and breastfeeding, through comprehensive and integrated care and care, from pregnancy to nine years of life, with special attention to early childhood and the most vulnerable populations, aiming at reducing morbidity and mortality and a facilitating environment to life with conditions worthy of existence and full development. (Pnaisc).

LINE OF CARE CHOSEN: CHILD

Justification

After analyzing the four lines of care already mentioned, it was defined which would be prioritized; the choice was based on the analysis of the criteria of magnitude, transcendence, vulnerability and feasibility.

Table 1.

Score used: 1 to 3.

1: low 2: medium 3: high

Magnitude: 2

- *How big is the problem?* Low.
- *Does it reach many people?* According to the SEADE¹ website, the projection of children aged 0 to 10 years in Osvaldo Cruz in 2020 is 3,319, which means approximately 10.60% of the population of County.

1. State Data Analysis System Foundation < <https://www.seade.gov.br/> >

- *Does it involve many people in law Suit?* Great: all at actions in health what involves the attendance of children.
- *Which urgency in to intervene in that problem?* Great urgency, if no there is intervention in the problems of the child's care line, the future health of the municipality may be jeopardized.
- How often does it happen: occasionally or often?
- Occasionally: when there are health problems with children.
- *Are the consequences of this problem: catastrophic, critical, moderate, mild, minimal?* Catastrophic: probability of children getting sick and/or dying, compromising the future of County.

Transcendence: 3

- What is the political, cultural and technical importance of problem?

Policy: Large (if the Child care line is not prioritized, illnesses and/or deaths may occur in children);

Cultural: Large (child health problems);

Technical: Large (increase in illnesses and/or child deaths compromises the future of the city)

- *Is it a problem of relevance to the population?* Yes, it is.

Vulnerability: 1

- There is knowledge, resources materials or financial for resolution of problem? Some yes, others not.
- *Is this a feasible intervention problem?* Some of them, we can say so and others not.

Cost: 3

- *How much costs to intervene at the problem?* Medium (problems in Warning basic cost little, medium and high complexity problems).
- *How much does it cost not to intervene in the problem?* A lot.

SWOT MATRIX OF THE LIFE CARE LINE CHILD

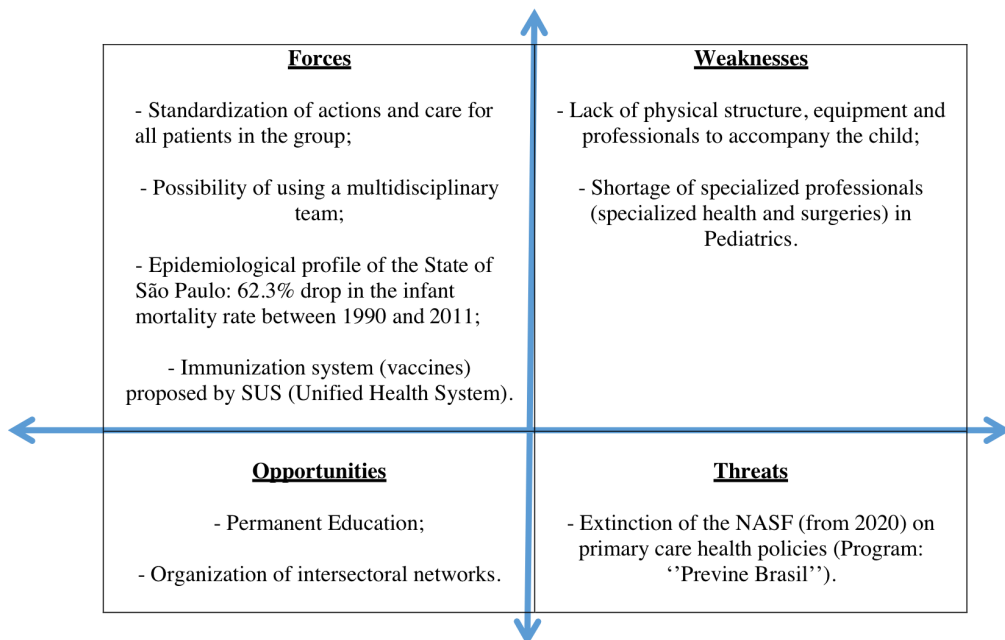


Table 2: SWOT Matrix.

When analyzing through the SWOT the line of care for the Child, the following situation is faced:

Forces:

When working with care protocols, the municipal secretariat now has equal care for all patients in the group. The purpose of implementing the Child Care Line is to strengthen care actions for child health, with increased monitoring of child development, improvement of cognitive and affective development and the application of prevention and intervention strategies in children whose families have a higher risk and vulnerability profile.

Another strength is the possibility of using a very important multidisciplinary team for the treatment and monitoring of the child, such teams must have a multidisciplinary and interdisciplinary character, and contain health professionals who work in an integrated manner with the Primary Care teams.

The state of São Paulo has shown a significant reduction in the infant mortality rate: “in 1990 it had 30.8 deaths/thousand live births, and in 2011 this rate increased to 11.6 deaths/thousand live births.

The Brazilian public immunization system used by SUS is considered one of the best in the world. The proposed vaccination schedule for Brazilian children is fully suited to the needs of this public. In 1994, Brazil received the certificate of elimination of Poliomyelitis.

Weaknesses

The lack of physical structure and professionals specialized in pediatric care lead to damage in the treatment of the child.

Opportunities

Holding continuing education meetings to discuss cases and train the team are actions

that can optimize the work process and care for children.²

Threats

The extinction of the NASF program and financial transfer may harm the actions of municipalities at the attendance of children. NASF is formed per team multidisciplinary and the extinction and no transfer financial (The new policy in transfer no contemplate this program, but the municipal management may choose to maintain a multidisciplinary team, since other transfers are linked to good results in the team's performance, which can be achieved with the help of these professionals) can lead to the suspension of this team's support to the Basic Health Units and make it difficult to care for and monitor the child.

PRIORITIZED PROBLEM - LOGIC MODEL

Low vaccination coverage for children under two years of age in the city of Osvaldo Cruz/SP

TO CHOOSE THE PROBLEM

The selected vaccines are aimed at controlling diseases of significant importance, and it is essential to maintain high and homogeneous vaccine coverage as a strategy to maintain and/or advance in relation to the current situation:

- The Pentavalent vaccine, which prevents diphtheria, tetanus, pertussis, and Haemophilus influenza type B infections and hepatitis B;
- The 10-valent Pneumococcal vaccine, which prevents infections caused by pneumococcus, responsible for diseases with high burdens of mortality and morbidity in the population childish;
- The Poliomyelitis vaccine, for the prevention of the disease of the same

2. SILVA, Prof. Dr Anderson Soares da., p. 5. Child Care Line.

Year	Number of_vaccines_with_cob. achieved	Number of_vaccines_selected	%_Vaccine_achieved
2012	1	4	25
2013	4	4	100
2014	4	4	100
2015	0	4	0
2016	1	4	25
2017	0	4	0
2018	1	4	25
2019	1	4	25

Source: SESSP/CCD/CVE/ Div.Imunization/National Immunization Program Information System/SI-PNI ⁴

name, in the global eradication phase; and,

- The Triple Viral vaccine, for the prevention of measles and rubella, diseases with commitment to elimination in the region of the Americas.³

It is important to emphasize that adequate coverage is 95% for the 4 vaccines indicated.

Above is the result of this indicator for the municipality of Osvaldo Cruz in the period 2012 - 2019.

TREE OF PROBLEMS

Central Problem: Low vaccination coverage for children under two years of age in the city of Osvaldo Cruz/SP

Causes:

- Overestimated population used by information systems officers;
- Increased notoriety of the movement antivaccine;
- Lack of time in most families;⁴
- Current parents/families have not witnessed major epidemics that were

caused before the emergence of vaccines, so they do not give due importance to vaccines and disease. (Polio was one of the most feared childhood illnesses of the 20th century until the emergence of vaccine at decade in 1950⁵ measles was the main responsible along with smallpox, chickenpox and other diseases, it killed over 90% of the continent's population, defeating and destroying the Aztec and Inca civilizations.⁶ The measles vaccine was developed in 1963)

Consequences:

- Loss of measles-free country certificate given by PAHO (Pan American Organization of Health).
- Return of the measles and polio epidemics in Brazil;
- low coverage of SISPACTO indicator 4 (25% in Osvaldo Cruz/SP); Below is drawn the problem tree proposal:

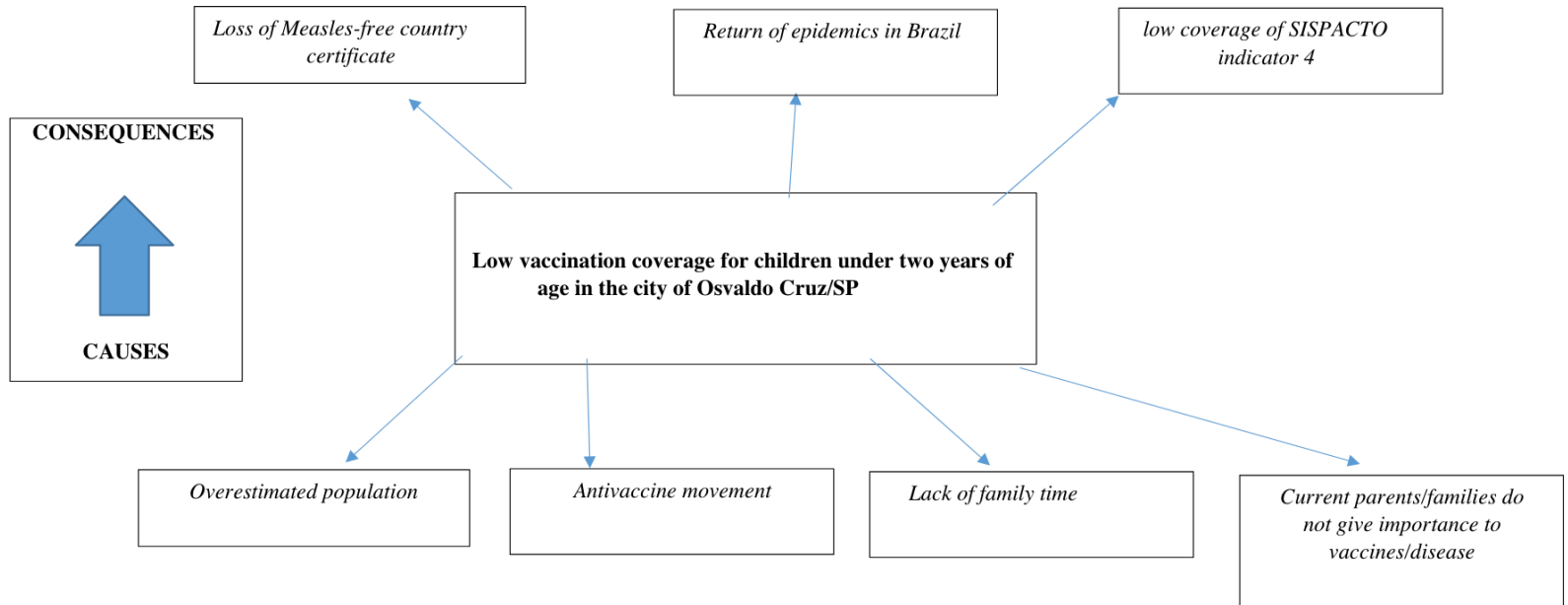
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4. <http://tabnet.saude.sp.gov.br/tabcgi.exe?tabnet/ind4_pacto17.def> accessed on 04/10/2020

5. <<https://pt.wikipedia.org/wiki/Poliomyelitis>> accessed on 04/10/2020.

6. <<https://pt.wikipedia.org/wiki/Sarampo>> accessed on 04/10/2020

PROBLEM TREE



ACTION PLAN - MODEL 5W2H

Objective 1	Achieve 95% of the adequate vaccination coverage (CV) of the Basic Child Vaccination Calendar					
Indicator	Proportion of selected CNV vaccines for children < 2 years - pentavalent (3rd dose), 10-valent pneumococcal (2nd dose), poliomyelitis (3rd) and triple viral (1st) - with recommended vaccination coverage.					
1. What	2. Why	3. Who	4. When	5. Where	1. How	2. How much?
<p>Carry out an Active Search, through the PSE and the ACS in children with late vaccines; Set up a follow-up group with children aged up to 2 years, promoting child care; Carry out an active search of children in private schools in order to read portfolios twice a day year; 4- Establish the obligation to present the children's vaccine card for scheduling, consultation and carrying out procedures in health.</p>	<p>The planned actions aim to the decrease in the percentage of children from 0 to 2 years of age without the recommended vaccines.</p>	<p>Primary Care Team (nurses, community health agents and doctors) and the Vaccination Center and Multiprofessional team.</p>	<p>Action 1 – Throughout the year; Action 2 - Throughout the year; Action 3 – every six months; Action 4 - Throughout the year;</p>	<p>Family Health Unit and Municipal Vaccination Center _</p>	<p>List of children overdue with vaccines by the Municipal Vaccination Center team, active search for children carried out by the ESF? EAP teams. Vaccination by the entire Care team Basic (trained professionals)</p>	<p>Resource proposed in the municipal budget</p>

Objective 2	Identify the reasons that lead to the delay in basic vaccinations					
Indicator	Comparison between the number of children without vaccines before the proposed actions and after carrying out the actions					
1. What	2. Why	3. Who	4. When	5. Where	1. How	2. How much?
1 – Active search by the professionals of the multidisciplinary team with those responsible for the children, to find out why the children were not vaccinated; 2- Group awareness of the importance of vaccines	The planned actions aim to identifying the reasons why children are not vaccinated.	Nursing professionals and multidisciplinary team	Action 1 – throughout the year; Action 2: create small groups and perform from 1 to a maximum of 3 dates. Evaluate the results and assemble a new group.	Health Unit of family	Active search by nursing, psychology and/or other professionals from the multidisciplinary team to identify the causes of non-vaccination. Creating awareness groups importance of vaccines. In the groups, the importance of vaccines will be addressed, and the diseases that may arise due to the absence of immunization. In addition to presenting the obligations of parents / guardians and possible punishments. Demystify fake news about vaccines, always based on scientific studies.	Resource proposed in the municipal budget

MONITORING MATRIX / DASHBOARD MAPLE

Objective	Goal	Indicator	Verification parameter of goal	Verification source	Evaluated Period	Analysis	Corrective Media	Responsible
Achieve 95% of the adequate vaccination coverage (CV) of the Basic Child Vaccination Calendar	95% vaccine coverage (CV)	Proportion of selected CNV vaccines for children < 2 years old, with recommended vaccination coverage.	<p>If $\geq 95\%$ coverage in the 4 vaccines: RESULT ACHIEVED.</p> <p>If < 95% coverage in the 4 vaccines: RESULT NOT ACHIEVED.</p>	SPNI System (National Immunization Program Information System)	1 year (with monitoring and evaluation over time)	<p>Depending on the result. If result achieved: maintain the proposed actions.</p> <p>If result not achieved: identify why children are not encouraged to receive the vaccine (Objective 2).</p>	Change the proposed actions if the result is not being achieved during the realization period.	Municipal health manager and nurse responsible for the Municipal Vaccination Center

FINAL CONSIDERATIONS

The project presented consists of an analysis, through the perspective of Clinic Management, of how a “problem” can be solved. It is noticeable that health indicators must be analyzed from a global perspective, where it is possible to see “why it happens”, “how it happens”, and “what can be done” to obtain better results.

Health management is not just a sector/department that “solves public health problems”, but must be seen as a strategic department of any municipal management. It is of essential importance what you managers know in instruments in management and planning to identify, solve

and monitor the actions of a Municipal/State Health Department. Only acting from the perspective of Clinic Management, health actions will have the desired successes to achieve the proposed result.

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