# International Journal of Health Science

MORBIDITY RATE IN
INDIVIDUALS IN THE
AGE GROUPS FROM 30
TO 69 YEARS, AFFECTED
BY CNCD DUE TO
OBESITY: A VIEW FROM
THE PERSPECTIVE
OF CLINICAL
MANAGEMENT

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#### INTRODUCTION

The work consists of producing a reflection, from the perspective of Clinical Management, reducing the morbidity rate in individuals aged between 30 and 69 years, affected by CNCD due to obesity in the city of Osvaldo Cruz/SP.

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

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 identify strengths, weaknesses, opportunities, and threats related to competition in business or project planning. It is intended to specify the risk objectives of the business or project, and to identify the internal and external factors that are favorable and unfavorable to achieving these objectives. (...) The SWOT analysis is a tool used to carry out analysis of scenarios (or environments), as a basis for management and strategic planning of a corporation or company (...)

#### 5W2H method

O 5W2H, basically, it is a checklist of certain activities that need to be developed with as much clarity as possible by the company's employees. It works as a mapping of these activities, where it will be established what will be done, who will do what, in what period, in which area of the company and all the reasons why this activity should 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 must be prepared considering the objective, the goal, the indicator, the source of verification. (CANABRAVA; Claudia Marques. and OLIVEIRA, Danilo Carvalho, p. 14)

#### **HEALTH CARE NETWORK**

# PUBLIC HEALTH STRUCTURE OF 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 Health Department of Osvaldo Cruz (with Sanitary Surveillance and Epidemiological Surveillance services);
- Regulation/Scheduling Center;
- 1 Osvaldo Cruz I Health Center
- 1 Basic Health Unit:
- 6 Family Health Units, totaling 7 Family Health Strategy Teams;
- 1 Pediatrics and Vaccination Center, with a "Simone Turra" Human Milk Collection Station;
- 1 Specialized Dentistry Center (CEO type I);
- 1 CAPS;
- 1 Therapeutic Residence.

Health Center I provides basic care and medical specialties (Ophthalmology, Gynecology, Cardiology, Vascular Surgery, Orthopedics) in addition to services in the area 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 provides care to patients suffering from mental disorders referred from Primary Care, in addition to inpatients at the Therapeutic Residence.

The Therapeutic Residence has 10 inpatients, who are assisted by the CAPS team and the Basic Health Unit in the region they belong to.

Patients enter the SUS through Primary Care units and/or the local Santa Casa Emergency Room; and when necessary, they are referred to specialized services in the municipality or in the reference.

The municipality of Osvaldo Cruz has 01 hospital (Irmandade 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.

## HEALTH REGION OF CIR ADAMANTINA

The Adamantina region is made up of 10 municipalities, with 2 municipalities (Osvaldo Cruz and Admantina ) being larger (about

30 – 35 thousand inhabitants) and the rest (Inúbia Paulista, Sagres, Salmourão, Lucélia, Pracinha, Mariápolis, Pacaembu and Florida Paulista) has a population with a smaller number of inhabitants.

The region has 5 Santa Casas (1 in Osvaldo Cruz and 1 in Adamantina, 1 in Lucélia, 1 Pacaembu and 1 Florida Paulista, the last two small), the other municipalities only Basic Health Unit.

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, on the other hand, provides emergency care, outpatient care and hospitalizations at the 4 clinics in Inúbia Paulista, Lucélia, Mariapolis, 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 (with some specialties attended at Santa Casa de Tupã, Santa Casa de Marília, University Hospital of Marília, among 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, and these units are considered gateways to the SUS.

#### **LINES OF CARE**

4 lines of care were analyzed:

1 - Hypertension;

PROBLEM (RELATED TO LINES OF CARE)	MAGNITUDE	TRANSCENDENCE	VULNERABILITY	COST	TOTAL
Problems in the Obesity Care Line	2	3	1	3	9

Table 1- Prioritization of Problems.

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, kidneys and nerves. In more severe cases, 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: NCDS - OBESITY

#### **Iustification**

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 affect many people? According to the SEADE website, <sup>1</sup>the projection of individuals at risk of obesity in Osvaldo Cruz in 2020 is 7,195, which means approximately 22% of the population of the municipality.
- Does it involve many processes? Large: all health actions involving individual care in general.
- How urgent is it to intervene in this problem? There is great urgency, if there is

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

no intervention in the problems of the line of care for CNCD - obesity, the future health of the municipality may be jeopardized.

- How often does it happen: occasionally or frequently? Occasionally: when there are health problems correlated with individuals affected by obesity.
- Are the consequences of this problem: catastrophic, critical, moderate, slight minimal? Catastrophic: probability of people getting sick and/or dying, compromising the future of the municipality.

#### Transcendence: 3

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

<u>Policy:</u> Large (if the CNCD care line is not prioritized, illnesses and/or deaths may occur in an ascending proportion);

<u>Cultural:</u> Large (problems in public health); <u>Technique:</u> Large (increase in adult morbidity /mortality in general, which affects the economy and the future of the city)

- Is it a problem of relevance to the population? Great

#### **Vulnerability: 1**

- Is there knowledge, material or financial resources to solve the problem? Some yes, some no.
- *Is this a feasible intervention problem?* Some yes, others not.

#### Cost: 3

- How much does it cost to intervene in the problem? Medium (primary care problems cost little, medium and high complexity problems cost medium to a lot).
- How much does it cost not to intervene in the problem? Much.

# SWOT MATRIX OF THE CHILD CARE LINE

#### **Forces**

- Standardization of actions and care for all patients in the group;
  - Possibility of using a multidisciplinary team; obesity control program

#### weaknesses

- Lack of physical structure, equipment and professionals to monitor people affected by obesity;
- Shortage of specialized professionals (specialized health and surgeries) in adult health with an emphasis on prevention.

#### **Opportunities**

- Permanent Education;
  - Health Academy;
- Organization of intersectoral networks.

#### **Threats**

- Extinction of the NASF (from 2020) on primary care health policies (Programa Previne Brasil).

Table 2: SWOT Matrix.

When analyzing through the SWOT the line of care in Obesity, 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 Implementation of the Obesity Care Line aims to strengthen health care actions, with increased monitoring of individual and collective health, improvement of cognitive and affective development and the application of prevention and intervention strategies whose families have higher risk and vulnerability profile.

Another strength is the possibility of using a multidisciplinary team, which is very important for the treatment and follow-up of patients. Such teams must have a multidisciplinary and interdisciplinary character, and contain health professionals who work in an integrated manner with the Primary Care teams.

Obesity is currently one of the most serious public health problems and its prevalence has grown sharply in recent decades "in 1990 it presented 30.8 deaths/thousand, and in 2010 this rate increased to 40.6 deaths/thousand

The overweight/obesity control program used by SUS is considered one of the best. The program's proposal is to reduce the number of bariatric surgeries and consequently future problems of other comorbidities. Brazil is considered as a model in the process and program of outdoor health gyms.

#### - Weaknesses

The lack of physical structure and specialized and sensitive professionals for patients affected by obesity cause psychological damage to the individual.

### - Opportunities

Holding continuing education meetings to discuss cases and train the team are actions that can optimize the work process and customer service in a humanized way.

Comprehensive health care for adults with CNCDs-obesity cannot be achieved without structuring intersectoral actions between the health sector and other services (Education, Social Assistance, Justice, as well as organized civil society).

#### - Threats

The extinction of the NASF program and financial transfer may harm the actions of municipalities in serving selected groups. The NASF is made up of a multidisciplinary team and its extinction and no financial transfer (the new transfer policy no longer includes this program, but the municipal management can choose to maintain a multiprofessional team since other transfers are linked to good results in team 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 people who are already included in specific groups for obesity control.

# PRIORITIZED PROBLEM – LOGIC MODEL

Morbidity Rate in Individuals Affected by NCDs Due to Obesity

in the city of Osvaldo Cruz/SP

#### WHY CHOOSE THE PROBLEM

Recent studies show an eminently high rate of obesity in two age groups: from 25 to 34 years and from 35 to 44. In these groups, the indicator rose, respectively, 84.2% and 81.1% (compared to a 67.8% increase in the general population). We can analyze below the main comorbidities when there is no

practice of healthy living.

## The problems resulting from obesity are:

- Intensification of symptoms of hypertension with hemodynamic worsening;
- Social isolation due to low self-esteem and *bullying*;
  - Risk of stroke;
  - Renal insufficiency;
  - Risk of Diabetes;
  - Development of heart disease;
  - Increased Cholesterol;

#### PROBLEM TREE

Central Problem: high rate of obesity in the range between 30 and 69 years old in the city of Osvaldo Cruz/SP

#### Causes:

- Careless, idle population harmed by technology;

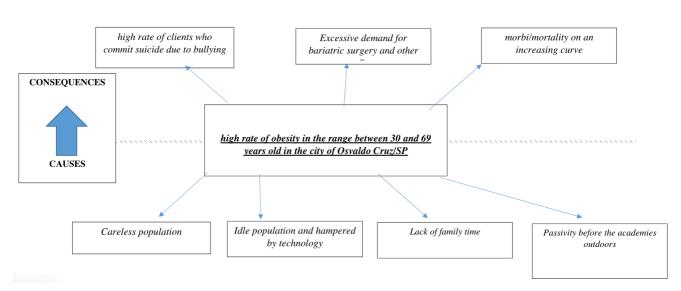
- Increased notoriety of the passivity movement;
  - Lack of time in most families;
- Population witness major epidemics caused by the idleness of the general population affected by fast technologies that force us to eat wrong and always be tired of work, with a high level of stress

#### **Consequences:**

- High rate of clients who commit suicide due to *bullying*
- Excessive demand for bariatric surgery and the like:
  - Morbi / mortality in increasing curve.

The proposed problem tree is drawn below:

#### **PROBLEM TREE**



## **ACTION PLAN - MODEL 5W2H**

ACTION PLAN - 5W2H								
Objective 1  Indicator	Reduce and monitor the number of obesity cases by proposing support groups to prevent risks and harm to the health of the population, considering social determinants, through surveillance, promotion and protection actions, with a focus on the prevention of chronic non-communicable diseases.  Morbidity rate in individuals aged 30 to 69 years, affected by CNCD due to obesity.							
1. What to do? (Actions)	2. Why? (Reason)	3. Who Who will do? (Responsible)	4. When When to do? (Deadline)	4. When When to do?  5. Where Where? (Place)		2. How much? How much? (Cost)		
1 - Implementation of the Hypertension, Diabetes and Chronic Diseases group in the Family Health Units, through the multidisciplinary team; 2- Implement the physical activity groups in the Family Health Units, considering the health academy; 3- Provide access to the group in question at the UBS/ESF, opening them once a week at extended hours; 4- Request support from professionals from the primary care team, NASF and social segments with the aim of guiding and preventing chronic diseases, through lectures and continuing education;	The programmed actions aim to develop events that promote weight loss and monitor signs and symptoms of worsening CNCDs. Remove these patients from the queue for bariatric surgeries.	These actions will be carried out by the professionals that make up the ESF/ UBS: nurses, doctors, psychologists, CHA, physical educator, physiotherapist, nursing assistants, nutritionist.	The actions are carried out fortnightly, the groups have a duration proposal of 2 years, or until the ideal weight is reached.	The proposed physical activities for the group in question take place in the ESF and sometimes the clients are referred to the health gym in the municipality.	Select patients according to the degree of obesity and prepare specific actions for the group and, if necessary, create individual activities. They occur during the year every day that the ESF/UBS are in attendance and all periods. The meeting to discuss cases takes place every 15 days in the afternoon with all of the team.	The cost for the development of the care group refers to the professionals of the FHS team and funding passed on by the federal entity.		

Objective 2	Reorganize the ESF/USB, using a protocol to serve the population in all life cycles, developing promotion, prevention and health care actions with adequate care, in the time, place and quality required for each situation.							
Indicator	Percentage of Health	ercentage of Health Centers with reorganized work process - Creation of work in specific groups using protocol.						
1. What to do? (Actions)	2. Why? (Reason)	3. Who Who will do? (Responsible)	4. When When to do? (Deadline)	5. Where Where? (Place)	1. How to do? (Phases)	2. How much? How much? (Cost)		
1- Carry out educational lectures in schools in order to raise awareness about healthy living habits in the prevention of mortality from CNCD; 2- Analyze the situational data of families of each ESF and propose improvement actions in CNCD using existing resources in <i>locus</i> ; 4- Encourage educational campaigns in the industry and commerce workplaces related to eating habits and sports activities.	services with a focus on coping with obesity, with a view to promoting and preventing	be carried out by the professionals that make up the ESF/ UBS: nurses, doctors, ACS, nursing		be held at the ESF itself or at the Health	Reorganizing the services should take place after monthly meetings between the team, as they will adapt the provision of services according to the collective needs of the assigned population meeting with the AB manager and coordinator at least once every 6 months to align the assistance.	There will be no upfront cost		

## MONITORING MATRIX/ONBOARD PANEL

Objective	Goal	Indicator	Goal check parameter	Verification source	Evaluated Period	Analysis	Corrective Average	Responsible
Guide municipal teams to carry out the organization of the work process in this line of care: diagnosis, through risk stratification and implement technical protocols for AB and medium complexity, organize internal care flows.	Reach 50% of the overweight/obese population	Proportion of patients with BMI ≥ selected in SILVAN.	If 50% decrease in BMI RESULT ACHIEVED  If < 50% decrease in BMI RESULT NOT ACHIEVED.	SISVAN- Food and Nutrition Surveillance System - SISVAN	1 year (with monitoring and evaluation over time)	Depending on the result.  If result achieved: maintain the proposed actions.  If result not achieved: identify why customers are not attending the groups.	Change the proposed actions if the result is not being achieved during the realization period.	Municipal health manager + nurse responsible for the ESF/ EAP.

#### **FINAL CONSIDERATIONS**

The presented project consists of an analysis, through the perspective of the 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 should be seen as a strategic department of any municipal management.

It is of essential importance that managers know about management and planning instruments 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 results.

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