

## Law for the prevention of overweigh, obesity and eating disorder from a multidisciplinary perspective

### Ley de prevención de Sobrepeso, obesidad y Trastornos de conducta alimentaria desde una mirada multidisciplinar.

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#### Abstract

Consider the potential of education with a multidisciplinary management as a promoter of healthy citizens

Objective: To show that the approach and management that has been given in the case of Obesity, overweight and eating disorders (TCA), where the physical aspect has been taken into account mainly, has marked a diminished and impoverished management of the illness.

Methodology: For this research, a review of the laws based on the prevention of overweight, obesity and eating disorders in Mexico was carried out. According to statistical data from the 2018 National Health and Nutrition Survey (ENSANUT).

Contribution: The result of the analysis of the review shows that there are legal gaps in the law, which do not meet criteria that generally address the issue of overweight, obesity and eating disorders. In a timely manner, the law of the state of Nayarit was reviewed and compared, and a prevention proposal was made that includes comprehensive care for these diseases.

**Laws, Obesity, Eating disorders**

#### Resumen

Considerar el potencial de la educación con un manejo multidisciplinar como impulsor de ciudadanos sanos

Objetivo: Mostrar que el enfoque y manejo que se ha dado en el caso de la Obesidad, el sobrepeso y los trastornos de conducta alimentaria (TCA), donde se ha tomado en cuenta principalmente el aspecto físico, ha marcado un manejo disminuido y empobrecido de la enfermedad.

Metodología: Para esta investigación, se llevó a cabo una revisión de las leyes en función de la prevención de Sobrepeso, obesidad y trastornos de conducta alimentaria de México. Según datos estadísticos de la encuesta nacional de salud y nutrición (ENSANUT) 2018.

Contribución: El resultado del análisis de la revisión demuestra que hay vacíos legales en la ley, que no cumplen con criterios que aborden de forma general el tema de sobrepeso, obesidad y trastornos de conducta alimentaria. De forma puntual se revisó y comparo la ley del estado de Nayarit y se realizó una propuesta de prevención que incluye atención integral de estas enfermedades.

**Leyes, Obesidad, Trastornos de la conducta alimentaria**

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## Introduction

The World Health Organization establishes the definition of Health as "a complete state of physical, mental and social well-being" and not only the absence of disease. Based on this premise, it is important to consider that, although in Mexico health care is a fundamental and indispensable right for human beings, it is observed that in some diseases such as obesity, overweight and eating disorders (ED), the approach and management has been given taking into account mainly the physical aspect, marking a diminished and impoverished management of the disease.

This is the reason for the interest of this research that aims at a multidisciplinary review of this problem, for this purpose, a review of the laws for the prevention of overweight, obesity and eating disorders in Mexico was carried out. According to statistical data from the National Health and Nutrition Survey (Shamah et al., 2018), in the last 30 years, the prevalence of overweight and obesity in Mexico has tripled, and currently just over 70% of the Mexican adult population has a weight above the recommended, which has led our country to currently occupy the second place in obesity in adults and the first in the child population. The promotion of obesogenic environments and the lack of detection of eating disorders in schools, as well as the lack of adequate services to promote the health of children, adolescents and young people, to prevent this type of diseases and to treat them in a timely manner, leads to serious health problems and psychosocial risk conditions for the school population, which cannot be addressed in a timely and efficient manner due to the demand for services required, mainly by health institutions. In our country, the public school concentrates in the basic and high school level a little more than 23 million students (86.5% of school enrollment) (SEP, 2017), a condition that makes it a social space with enormous potential that counteracts the health crisis that currently puts children and young people at risk, through real actions.

From the result of the analysis of the review, it shows that there are legal gaps that do not meet criteria that generally address the issue of overweight, obesity and eating disorders, have focused on general aspects neglected others no less important, as is the case of overweight and obesity without taking into account eating disorders, In some cases, this has resulted in approaches that instead of benefiting the population have been overloaded with information gaps that are incongruent with the policies that have been tried to be applied, without having results that reflect that the path that has been followed has been the most optimal to achieve a positive and tangible change in terms of this type of diseases that undoubtedly has repercussions in poor health, nutrition and poor quality of life.

Under this framework and after carrying out a review of the laws that support public policies regarding food health in Mexico and the legislation of each state of our country, it was possible to compare that of the state of Nayarit and proceed to make a proposal for a law that includes comprehensive care and a proposal for the prevention of these diseases.

Obesity and overweight have become a worldwide public health problem. Governmental actions to address this problem include a wide spectrum of instruments ranging from information campaigns to the design of specific legal regulations (Castellano, A., Temporelli, K., and Chaz, S, M. 2017). According to the World Health Organization, obesity is a chronic disease, characterized by increased body fat, associated with increased health risk. In adults, obesity is classified by considering the Body Mass Index (BMI), due to the correlation that this indicator presents with body fat and health risk at the population level. The classification of obesity according to WHO, considers overweight a BMI of 25 - 29.9, Obesity grade one 30-34.9, severe obesity 35-39.9 and 40 or more indicates a very severe increase (Moreno, 2012).

Psychological disorders that involve severe abnormalities in eating behavior are referred to as "eating disorders" (Raich, 2011). Eating disorders (EDs) are characterized by presenting abnormal eating behaviors as a response to their dissatisfaction with their body image. They are heterogeneous and complex diseases and different factors may be involved in their etiopathogenesis: genetic, biological, psychological, individual, familial and sociocultural (Sánchez and Prats, 1998). It includes two specific disorders: anorexia nervosa (AN) and bulimia nervosa (BN); in addition, six eating disorders not otherwise specified (EDNOS) have also been defined, according to the Diagnostic and Statistical Manual of Mental Disorders, revised and published by the American Psychiatric Association, DSM-IV-TR (APA, 2000).

It is emphasized that the problem of obesity is not new, society and different health institutions have identified it; however, it has not been addressed in a multidisciplinary manner and therefore the many failed attempts to combat this problem. In other words, obesity is a complex medical problem that according to the World Health Organization (WHO) has become a worldwide epidemic. This condition, which is caused by the decrease in energy expenditure or increase in the caloric intake of individuals, generates not only physical but also psychological problems that trigger a series of diseases that reduce the quantity and quality of life, increasing the demand for health care (Temporelli and Mussini, 2012).

It is perceived as a worldwide phenomenon and assumes a complexity that impacts the health of the child population due to the important physical consequences, such as cardiovascular diseases, diabetes, increased risk of cancer; others are mental, such as low self-esteem, depression or anxiety; in addition to the social ones, such as stigma, discrimination or difficulties in relating; and all of them imply a lower quality of life, according to the High Commissioner for Child Poverty (2022) despite this, the results indicate that the efforts made have been partial, inadequate and insufficient.

Latin American countries in general are facing changes in the health conditions of their inhabitants. There is a sustained increase in the prevalence of chronic diseases and a decrease in infectious diseases (Bernabeu and Robles, 2000; Robles, Bernabeu and Benavides, 1996). These changes have generated a "health change" term that recognizes the importance of social and behavioral factors in the health status of populations (Viego & Temporelli, 2015; Robles, Bernabeu, & Benavides, 1996)

Health risks associated with the processes of industrialization and urbanization originate in individual choices that lead to the adoption of new lifestyles that are not always healthy. On the one hand, there is an increase in the consumption of foods with low nutritional content and high caloric intake, while on the other hand, sedentary activities increase both in the work and recreational environments (Santos-Preciado, 2003; Robles, Bernabeu and Benavides, 1996).

Obesity and overweight stand out among the emerging health problems in this new paradigm of the rest, due to the sustained increase in their prevalence and because they constitute a risk factor for other non-communicable diseases such as arterial hypertension, diabetes mellitus type I and II, cardiovascular diseases, hypoventilation and obstructive sleep apnea syndromes, liver disease due to fatty infiltration of the liver, cholelithiasis, osteoarthritis, epiphysiolysis, dyslipidemia and some types of cancer (Flegal, Graubard and Williamson, 2005; Sturm, 2002).

These are pointed out as relevant and determinants of the increase in obesity:

- The increase in the price of fruits and vegetables and the decrease in the price of industrialized foods (with higher caloric intake).
- The increase in food consumption outside the home, sometimes due to the insertion of women in the labor market, which reduces the time devoted to food preparation.
- Sedentary activities such as playing video games, watching television, using cell phones, computers, and other electronic devices,

- The number of fast food restaurants has increased and the size of the portions offered has increased.
- Advertising tending to increase the consumption of foods rich in sugar and fat, aimed mainly at children.
- In urban environments, there has been an increase in insecurity, which reduces the possibility of engaging in physical or recreational activities in open-air spaces.
- The growth of cities has increased and so has the need to use transportation, which limits the possibility of walking.

Globally, in 2014, more than 1.9 billion adults aged 18 years and older were overweight, of which more than 600 million were obese. That is, about 13% of the world's adult population was obese, with differences between men (11%) and women (15%). On the other hand, 39% of the adult population was overweight. Beyond the number of individuals suffering from these pathologies, the WHO report states that between 1980 and 2014 the global prevalence of obesity has doubled and this trend does not seem to be reversed (WHO, 2016).

In today's Mexico we face undeniable effects of modern life and transculturation (Rebato, 2009), vertiginous changes have been adopted by the population. There has been an increase in the consumption of fats, flours and various foods that are not part of the national culture, leaving aside the consumption of corn and beans, just to name a few. On the other hand, the mass media and advertising of large food companies incite excessive consumption and at the same time the prototype of beauty requires us to be thin, this restriction confronts us with another paradox. For this reason, abnormal behaviors of food intake are adopted, leading to disorders such as anorexia and bulimia (Torrero and Urbiola, 2010).

In addition, they "sell" and claim that said a prototype of beauty towards extreme thinness that does not fit with most of the population and that mainly influences young people, who internalize that being extremely thin is synonymous with beauty, success and popularity, leading them to carry out unhealthy eating habits (Pérez and Romero, 2008; Pérez-Gil and Romero, 2010; Pérez, Vega and Romero, 2007). Therefore, it is a problem where social influence predominates.

In the specific case of Mexico, the food and nutritional panorama is complicated; on the one hand there are problems of malnutrition and nutritional deficiencies and on the other hand there is obesity and chronic degenerative diseases, in many cases as a result of customs and habits alien to the food culture in this country (Torrero and Urbiola, 2010).

The proposal is based on the diagnostic criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association (APA), which contains a classification of mental disorders and provides clear descriptions of the diagnostic categories, so that clinicians and health science researchers can diagnose, study, exchange information and treat the different mental disorders.

### **Methodology:**

The laws involving the topic of health were identified and reviewed to establish the relationship with the topics of obesity, overweight and ACTs in Mexico, there is a General Health Law that serves as a frame of reference for state legislatures. The following emanates from it:

To comply with the provisions of Article 4 of the Political Constitution of the United Mexican States, the General Health Law (1984) is created in which, in Article 1, establishes the bases and modalities for access to health services and the concurrence of the Federation and the federative entities in matters of general health. It also mentions that it is applicable throughout the Republic and its provisions are of public order and social interest. Likewise, article 2 mentions the following aspects:

- I. The physical and mental well-being of man in order to contribute to the full exercise of his capabilities;
- II. The prolongation and improvement of the quality of human life;
- III. The protection and enhancement of values that contribute to the creation, preservation and enjoyment of health conditions that contribute to social development; etc.

Although there is a general health law at the national level, it only briefly addresses the issues of obesity, overweight and eating disorders. The 32 state congresses have issued their respective laws addressing the issues in question, although not all of them address them with the same denomination.

#### **Analysis and proposed amendments to the law for the prevention of obesity, overweight and eating disorders in the state of Nayarit**

The present law was registered as Second Class Article on December 1, 1921, a modification is located in September 2015 proposed by the then Governor of the State of Nayarit LIC. NEY GONZÁLEZ SÁNCHEZ.

#### **Law for the prevention of obesity, overweight and eating disorders in the state of Nayarit (september 2015)**

A second modification is made with the Governor of the State of Nayarit ROBERTO SANDOVAL CASTAÑEDA, in which Section 111 of Article 7, Sections and VI of numeral 16, as well as diverse 17 are reformed; Article 13 BIS. Section VII of numeral 16 and diverse 19 BIS are added, all of the Law for the Prevention of Obesity, Overweight and Eating Disorders in the State of Nayarit. (The date of modification is not mentioned).

A careful analysis of the present law was carried out by a multidisciplinary team, with the participation of knowledgeable people with experience in the subject, seen from different disciplines such as medicine, psychology, nutrition, pharmacobiological chemist, dentistry, education sciences, physical culture and law.

#### **Results**

As a result of the analysis of the LAW FOR THE PREVENTION OF OBESITY, OVERWEIGHT AND EATING DISORDERS IN THE STATE OF NAYARIT the report was submitted to the president of the congress of the XXXII Legislature to the Honorable Congress of the State of Nayarit, the initiative aims to reform and add various provisions of the Law for the Prevention of Obesity, Overweight and Eating Disorders in the State of Nayarit. which has the purpose of reforming and adding diverse provisions to the present law.

The changes made included in the exposition of motives the legal loopholes that were not contemplated in the law.

The following are some of the main arguments that gave way to the proposed law:

- a) The World Health Organization that establishes the definition of Health as "a complete state of physical, mental and social well-being" and not only the absence of disease, it is established as a right the attention of human beings in an integral manner, with this premise it is important to point out that in the management of obesity overweight and eating behavior disorders, the approach and management has been given taking into account mainly the physical aspect, marking with it a diminished and impoverished management.
- b) In Mexico; on the one hand, there are problems of malnutrition and nutritional deficiencies and on the other hand, there is also obesity and chronic degenerative diseases, as a result in many cases of customs and habits foreign to the food culture in this country. There are problems related to food intake and at the same time problems related to food restriction.

- c) According to statistical data from the National Health and Nutrition Survey (ENSANUT) 2018. In the last 30 years, the prevalence of overweight and obesity in Mexico has tripled, and currently just over 70% of the Mexican adult population has a weight above the recommended, which has led our country to currently occupy the second place in obesity in adults and the first in the child population.
- d) Overweight and obesity are conditions that are related to genetic susceptibility, psychological, social and metabolic disorders; which increase the risk of developing comorbidities such as: arterial hypertension, type 2 diabetes mellitus, cardiovascular and cerebrovascular diseases.
- e) Eating disorders (ED) are characterized by abnormal eating behaviors in response to dissatisfaction with body image. They are heterogeneous and complex diseases and their etiopathogenesis may involve different factors: genetic, biological, psychological, individual, familial and sociocultural. Most of the time their diagnosis is made in advanced stages of the disease when the disorder is already installed and the outlook is not very encouraging.
- f) In the State of Nayarit we have a prevalence of Eating Disorders of 14.29%. Eating disorders are found in urban areas, although they are also found in rural areas, only with a lower percentage. It is worth noting that 31.54% of adolescents are overweight or obese, as well as Eating Disorders at the same time. When we talk about Eating Disorders, Overweight and Obesity we realize that they not only have personal implications that affect the biological, psychological and social aspects, but also involve the family area and society in general, due to the consequences derived from the diseases themselves (Negrete, Pénelo, Guzmán and Raich, 2019).

After the review, the proposed amendments to the present law were made and are presented below:

DRAFT DECREE

ONLY. - The name of the Law "LAW FOR THE PREVENTION OF OBESITY, OVERWEIGHT AND EATING BEHAVIOR DISORDERS IN THE STATE OF NAYARIT" is amended; fractions I, II, III and IV of article 2; article 3; article 4; fractions I, II, III, IV and V of article 5; the name of chapter II "Of the Council for the Prevention and Integral Attention of Obesity and Eating Behavior Disorders"; article 6; Article 7; Article 9; Sections II and III of Article 10; Article 11; Article 12; second paragraph of Article 13; Article 13 BIS; Article 14; first paragraph of Article 15; Article 16; Article 17; Article 18; Article 19; Article 19 BIS; the denomination of Chapter IV "On the Evaluation of Actions for the Prevention and Care of Obesity and Eating Disorders"; Article 21. A second paragraph is added to Section III of Article 15, all of the Law for the Prevention of Obesity, Overweight and Eating Disorders in the State of Nayarit, to read as follows:

LAW FOR THE PREVENTION OF OBESITY, OVERWEIGHT AND EATING DISORDERS IN THE STATE OF NAYARIT	PROPOSED CHANGES TO THE LAW
LAW FOR THE PREVENTION OF OBESITY, OVERWEIGHT AND EATING DISORDERS IN THE STATE OF NAYARIT (SEPTEMBER 2015).	LAW FOR THE PREVENTION OF OBESITY, OVERWEIGHT AND EATING DISORDERS IN THE STATE OF NAYARIT (2021).
Article 2. 1. To establish the legal framework in order to create the necessary instruments for the integral prevention of obesity, overweight and eating disorders in the State of Nayarit, as well as the development of eating and nutritional habits that allow the inhibition of their incidence.	Article 2. To establish the legal framework in order to create the necessary instruments that contribute to establish conditions for the integral prevention of obesity, overweight and eating disorders in the State of Nayarit.
III. To establish as an obligation of the authorities of the State of Nayarit, in accordance with their area of competence, the comprehensive prevention of obesity, overweight and eating disorders, and	III. To establish as an obligation of the authorities of the State of Nayarit, in accordance with the general norms established in a comprehensive manner, a mechanism for the attention, control and prevention of obesity, overweight and eating disorders.
IV. To formulate the general administrative dispositions regarding the prevention and integral attention of obesity, overweight and eating disorders, as well as the promotion of appropriate nutritional habits in the inhabitants of the State of Nayarit.	IV. To formulate the general administrative provisions that establish the guidelines related to the prevention and integral attention of obesity, overweight and eating disorders in the State of Nayarit.
Article 3.- The State Government, through the Nayarit Health System, shall promote the coordinated participation of the social and private sectors in the conformation, implementation and evaluation of the State Program for the Prevention and Fight against Obesity, Overweight and Eating Disorders.	Article 3.- The State Government, through the Nayarit Health System, shall promote the coordinated participation of the public, social and private sectors in the conformation, implementation and evaluation of the State Program for the Prevention and Fight against Obesity, Overweight and Eating Behavior Disorders.

Article 4.- The State Program for the Prevention and Fight against Obesity, Overweight and Eating Disorders is the guiding instrument of the governmental action in the matter of the present Law.	Article 4.- The State Program for the Prevention and Combat of Obesity, Overweight and Eating Behavior Disorders is the guiding instrument of the governmental action in the matter of the present Law.
Article 5. I. To issue, with the participation of the organized social and private sectors, the State Program for the Prevention and Fight against Obesity, Overweight and Eating Disorders in Nayarit;	Article 5. I. To issue, with the participation of the diverse public and private sectors, social and governmental, as well as non-governmental, the State Program for the Prevention and Combat of Obesity, Overweight and Eating Behavior Disorders in Nayarit.
II. Through the Ministry of Health, to permanently provide the inhabitants of Nayarit with information on the prevention of obesity, overweight and eating disorders;	II. Through the Ministry of Health, to permanently provide the inhabitants of Nayarit with information on the prevention of obesity, overweight and eating disorders;
III. In coordination with the educational authorities and their trade organizations, promote the adoption by society and particularly in schools, of nutritional habits that inhibit the incidence of obesity, overweight and eating disorders;	III. In coordination with the educational authorities and their trade organizations, promote the adoption by society and particularly in schools, of psycho-educational strategies for the prevention and treatment of obesity, overweight and eating disorders, in order to establish strategies for protective factors. For this purpose, a subject may be included at the secondary level that will be developed by experts who have previous research in the disciplines of nutrition, psychology and physical activity, ensuring that the student knows about healthy eating habits, physical activities necessary for a good development and the psychological aspects that influence the development of obesity, overweight and eating disorders;
IV. To organize the participation of the social and private sectors in relation to the prevention and fight against obesity, overweight and eating disorders;	IV. To organize the participation of the public, social and private sectors in relation to the prevention and fight against obesity, overweight and eating disorders;
V. To carry out the necessary research on obesity, overweight and eating disorders, making the results obtained public knowledge, and	V. To carry out the necessary research on obesity, overweight and eating disorders, making the results obtained public knowledge, and
Chapter II The Council for the Prevention and Integral Care of Obesity and Eating Disorders	The title of Chapter II "The Council for the Prevention and Comprehensive Care of Obesity and Eating Disorders" is changed to "The Council for the Prevention and Comprehensive Care of Obesity and Eating Disorders".
Article 6.- The State Council for the Prevention and Integral Attention of Obesity, Overweight and Eating Disorders, is the collegiate instance, of permanent character, of structure, content, consultation and evaluation of the Program for the Prevention and Integral Attention of Obesity, Overweight and Eating Disorders in Nayarit.	The State Council for the Prevention and Integral Attention of Obesity, Overweight and Eating Behavior Disorders is the collegiate instance, of permanent character, of structure, content, consultation and evaluation of the Program for the Prevention and Integral Attention of Obesity, Overweight and Eating Behavior Disorders in Nayarit. of the Program for the Prevention and Integral Attention of Obesity, Overweight and Eating Behavior Disorders in Nayarit.

Article 7.- The State Council for the Prevention and Integral Attention to Obesity, Overweight and Eating Disorders shall be integrated by:	Article 7.- The State Council for the Prevention and Integral Care of Obesity, Overweight and Eating Behavior Disorders shall be integrated by:
V. Two representatives of the Sindicato Nacional de Trabajadores de la Educación (National Union of Education Workers), one from Section 20 and the other from Section 49 of Nayarit;	V. Two representatives of the National Union of Education Workers, one corresponding to section 20 and the other to section 49 of Nayarit; which must comply with the regulations of knowledge in the matter of this law to enforce the guidelines of this legal order;
VI. At the proposal of the Head of the Executive Branch, two representatives of educational institutions in the health area, as well as two representatives of civil society, and	VI. At the proposal of the head of the Executive Branch, two representatives of educational institutions in the area of health, as well as two representatives of the civil society, who must comply with the regulations of knowledge in the matter of this law in order to enforce the guidelines of this legal order, and
VII. A Technical Secretary with recognized knowledge in the subject matter, who shall be appointed and revoked if necessary by the Chairman of the Board.	VII. A Technical Secretary who shall comply with the following requirements: I. Be a Mexican citizen, in the exercise of his rights; II. Be at least 35 years of age on the day of appointment; III. Hold a professional degree, with a master's degree and/or doctorate and with a minimum seniority of 10 years; IV. To have broad experience and public recognition in the area of obesity, overweight and eating disorders; and V. Ethical aptitude and committed to the management and promotion of pertinent actions for the solution of these problems. The attributions of the Technical Secretary are I. To execute the agreements of the Council and its President; II. To grant certification and keep a registry of public, social and private sector organizations. II. To grant certification and keep a registry of the public, social and private sector organizations that operate rehabilitation centers in the area of obesity, overweight and eating disorders; III. To distribute the allocation of subsidies to the non-governmental organizations that meet the III. To distribute the allocation of subsidies to the non-governmental organizations that comply with the provisions of this law, in the terms agreed upon by the Council; IV. To cancel the registration, prior hearing, of the non-governmental organizations that operate rehabilitation centers, when they do not comply with the provisions of this law; V. Oversee that the actions of the Council are adjusted in the relative to the Mexican Official Standards, for the prevention, treatment, research and control of obesity, overweight and eating disorders, and VI. The others that this law, other dispositions, the Council or its president confer to it within the framework of its competencies.

Article 9.- The representatives of the civil society before the Council shall have knowledge on the subject.	Article 9.- The representatives of the civil society before the council shall have knowledge in the subject matter of this law.
Article 10.- The following are functions of the Council:  I. To elaborate and evaluate the state program for the prevention and integral attention of obesity, overweight and eating disorders, as well as to verify the content of the information directed to society on the subject; II. To issue the opinions related to the strategies to be implemented, in order to prevent obesity, overweight and eating disorders, as well as to promote and social adoption of habits that inhibit their incidence; III. To promote the linkage between the public organisms and the society, in the matter of the present ordinance; IV. To formalize the subscription of collaboration agreements and other legal instruments that may be required, with institutions and organizations of the public, social and private sectors and of the teachers' unions, as well as with other entities of the Federation or international organizations, in order to comply with the objectives of the present ordinance; V. To approve its internal regulations and other provisions required for the best performance of its functions; and VI. The others contained in the present ordinance and other applicable laws.	Article 10. The following are functions of the Council:  II. To issue opinions regarding the psychoeducational strategies to be implemented, in order to control and prevent obesity, overweight and eating disorders, as well as the promotion of habits that inhibit their incidence; III. To promote the linkage between public and private organizations and the society in the matter of the present ordinance;
Article 11.- Since it constitutes a public health issue, the prevention and attention of obesity, overweight and eating disorders is considered a priority.  The State Public Administration, other government and autonomous bodies, in accordance with their respective spheres of competence, shall develop and implement actions to comply with the objectives of this ordinance.	Article 11.- Since it is a matter of public health, the control, prevention and attention of obesity, overweight and eating disorders is considered as a priority.  The State Public Administration, other organs of government, autonomous and linked to the general or special regimes in accordance with their respective areas of competence, shall develop and implement actions to comply with the objectives of the present ordinance.
Article 12.- The agencies of the state public administration and other obligated subjects, indicated in the previous article, without prejudice to their legal attributions and independently of those imposed by the present ordinance, shall develop the actions of prevention and integral attention, related to overweight, obesity and eating disorders, established in the State Program.	Article 12.- The agencies of the state public administration and other obligated subjects, indicated in the previous article, without prejudice to their legal attributions and independently of those imposed by the present ordinance, shall develop the actions of control, prevention and integral attention, related to overweight, obesity and eating disorders, established in the State Program.
Article 13.- In order to modify sedentary work habits and promote the health of workers, the agencies of the state public administration shall encourage the development of physical activities within their facilities. Likewise, they shall carry out sporting and recreational activities outside their facilities for their personnel, implementing incentives in favor of their participation in these activities.	Article 13. In the development of the aforementioned actions, due coordination shall be established with the Secretary of Health in Nayarit, the Secretary of Education and the Technical Secretary.

Article 13 Bis.- In coordination with the Secretary of Health of the entity, the educational institutions and the agencies of the state public administration, within the scope of their respective competencies, shall promote campaigns against obesity, overweight and eating disorders, through the realization of sports days, conferences on healthy nutrition and constant health monitoring, and shall at all times ensure the practice of exercise, as well as a healthy and balanced diet.	Article 13 BIS. - In coordination between the technical secretary and the Secretariat of Health of the entity, the educational institutions and the dependencies of the state public administration, in the areas of their respective competences, shall promote campaigns against obesity, overweight and eating disorders, through the realization of sports days, lectures on healthy nutrition and constant monitoring of health, having at all times to procure the practice of exercise, as well as a healthy diet.  exercise, as well as healthy and balanced nutrition, based on the following:
	I. Attending to the principle of proportional universality, inclusive, adapted and safe possibilities must be offered that allow participation in physical education with the premise of maintaining the full development of the worker's physical, psychological and social capabilities; II. They must have the possibility to participate and reach a level of achievement corresponding to their abilities, possibilities and interests either in some physical activity and/or in sports in order to achieve an adequate state of mental and physical health; III. Provide active breaks to increase physical activity to the general population during the workday to contribute to increased productivity, reduction of injuries and absenteeism, and IV. To integrate personnel duly trained in sports science, management of obesity and eating disorders, so that the various sectors of the population take into account the possibilities for workers to access spaces and time according to their interests in this area.  Interests in this area.
Article 14.- In accordance with their budgetary exercise, the agencies of the state and municipal governments, as well as the autonomous agencies, may foresee within their budgetary projections, the necessary resources to carry out the actions referred to in this chapter.	Attending to their budgetary exercise, the dependencies of the state and municipal governments, as well as the autonomous organisms, must foresee within their budgetary projections, the necessary resources to carry out the actions and the generation of research centers, control, prevention and attention of overweight, obesity and the disorders of the eating behavior referred to in this law.  The research centers must have adequate infrastructure to carry out the actions of control, prevention and attention of overweight, obesity and eating behavior disorders, to count with trained human resources regarding the guidelines of this legal order for a good operation and to comply with the regulations of this law.
Article 15.- The following are attributions of the Secretariat of Health:	Article 15.- The following are attributions of the Technical Secretary, the Secretary of Health and the Secretary of Education:



<p>IV. Any others conferred by this ordinance.</p> <p>For the development of the actions included in sections I and II of this article, educational institutions, as well as civil society organizations on the subject, shall be called upon to collaborate.</p>	<p>IV. ...</p> <p>For the development of the actions included in sections I and II of this article, civil society organizations with knowledge in the matter shall be called upon to collaborate.</p>		<p>Focused on the reduction of sedentary lifestyles, as a cause of overweight, obesity and eating disorders, for this purpose:</p>
<p>Article 16.- It is incumbent upon the Secretary of Education of the State:</p> <p>I. Promote within the educational centers, the consumption of healthy food, as well as establish the prohibition to distribute, commercialize or promote the consumption of food and beverages with low nutritional value or containing ingredients that favor obesity, overweight or eating disorders, as well as to manage the appropriate before the federal authorities so that they apply similar measures in the educational centers of their jurisdiction in the state;</p> <p>II. To implement information campaigns in the educational centers in the state, regarding the need to modify the eating habits of the students of all educational levels, particularly regarding the prevention of obesity, overweight and eating disorders;</p> <p>III. Promote the use, by children and adolescents, of public spaces for the practice of sports and recreational activities;</p> <p>IV. To cooperate with the municipal governments in the adoption of the measures indicated in the previous section;</p>	<p>Article 16.</p> <p>I. Promote within the educational centers, the consumption of food with the necessary nutritional requirements for a healthy development, for which shall be established according to the manual made by nutrition specialists with qualified knowledge in obesity, overweight and eating disorders.</p> <p>Two ways of providing food are considered according to the disposition and need of the campus.</p> <p>a) Snacks only, according to the morning or afternoon schedule.</p> <p>a) Snacks only, which shall be provided in accordance with the manual provided by specialists in nutrition, overweight, obesity and eating disorders.</p> <p>b) Breakfasts, lunches or dinners, depending on the needs of the campus, which shall follow the menus established in the manual provided by specialists in nutrition, overweight, obesity and eating disorders.</p> <p>provided by specialists in nutrition, overweight, obesity, overweight, obesity and eating disorders, obesity and eating disorders.</p> <p>II. Trained personnel in the area of nutrition, expert in the area of overweight, obesity and eating behavior disorders will be in charge of following up with the personnel in charge of food handling, as well as its preparation and distribution within the school centers that will make sure to provide the size of the portions according to the requirements of the students;</p> <p>III. Involve and train teachers, parents or guardians, through workshops for healthy eating;</p>		<p>I. Programs and opportunities that contribute to exercise the right to physical activity in the different stages of life, different levels of activity and different capacities, in company and alone, should be strengthened, in order to reduce the disparity in physical activity, by age, gender, disability, pregnancy, economic and geographic situation, integrating vulnerable groups, such as ethnic groups and/or people with chronic diseases, that is to say, the population in general;</p> <p>II. To strengthen the formation of expert professionals dedicated to the service of control, prevention and treatment of programs directed towards the fulfillment of the law for the prevention of obesity, overweight and eating disorders in the state of Nayarit. Including, but not limited to, the health sector, transportation, urban planning, education, tourism and recreation, sports and fitness, community groups, community organizations, and other organizations.</p> <p>and fitness, community groups, civil organizations, in order to maintain policy coherence between sectors, increase knowledge, skills concerning their role and contribution to create inclusive and equitable opportunities;</p> <p>III. The provision of physical activity services for the prevention of obesity, overweight, and eating disorders shall be of quality and provide positive experiences for active recreation, sports and games for girls and boys, with an inclusive approach at different educational levels so that they receive instruction in physical activity throughout their lives according to their abilities and aptitudes, and</p> <p>IV. Integrate policy monitoring and evaluation systems, improving and integrating efficient data systems, including new digital technologies that allow the monitoring of socio-cultural and environmental factors of physical activity and sports with respect to the reduction of obesity, overweight and eating disorders.</p>
<p>Article 17.- The Ministry of Health, in coordination with the State Ministry of Education, as well as the National Union of Education Workers, shall implement intensive information campaigns to prevent and eradicate any type of discrimination towards persons suffering from overweight, obesity or eating disorders, especially aimed at the child and adolescent population.</p>	<p>Article 17.- The Technical Secretary, the Secretary of Health, in coordination with the Secretary of Education of the State, as well as the National Union of Education Workers, shall implement intensive information campaigns to control and prevent any type of discrimination towards people who suffer from overweight, obesity or eating disorders, especially aimed at the child and adolescent population.</p>	<p>Article 19.- Within the scope of their competence, the Municipal Governments shall carry out free and open access activities in sports, recreational and cultural facilities under their responsibility, likewise, they shall promote actions aimed at the prevention and attention of overweight, obesity and eating disorders, with special attention to children and adolescents.</p>	<p>Within the scope of their competence, the Municipal Governments shall carry out activities of free and open access in sports, recreational and cultural facilities under their charge, and shall also promote actions oriented to the prevention and attention of overweight, obesity and eating disorders, with special attention to children and adolescents, in actions such as attention to overweight, obesity and eating disorders, with special attention to children and adolescents, in actions such as:</p>
<p>Article 18.- The Nayarit Institute of Physical Culture and Sports shall promote the realization of sports and cultural events, mainly oriented to the child and adolescent population in order to promote the development of physical activities and inhibit the incidence of sedentary lifestyles, as a cause of overweight, obesity and eating disorders.</p>	<p>Article 18.- The Nayarit Institute of Physical Culture and Sports shall promote the realization of sports and cultural events, mainly oriented to the child and adolescent population in order to promote the development of physical activities focused on the reduction of sedentary lifestyles, as a cause of overweight, obesity and eating disorders.</p>		

	<p>I. Apply road safety regulations to people who perform physical activities in different areas and adapt according to the needs required;</p> <p>II. Provide educational centers with safe, inclusive and accessible spaces in their exterior and interior, so that children remain physically active and reduce sedentary habits;</p> <p>III. Create learning environments suitable for physical activity that contributes to the prevention of obesity, overweight and eating disorders;</p> <p>IV. Provide opportunities to participate in programs and services that promote physical and recreational activities as users, service providers and professional training in the field of prevention of obesity, overweight and eating disorders;</p> <p>V. Strengthen systems of evaluation and specialized counseling for patients diagnosed with obesity, overweight and eating behavior disorders, through health, community and social care services with personnel duly trained in physical activity physical activity and sports, and</p> <p>VI. Urban planning should observe the principles of mixed land use, allowing neighborhoods to be connected with networks that allow access on foot, by bicycle and other wheeled means, such as wheelchairs, skates, skateboards, designs that allow inhabitants and visitors with different abilities to be physically active in buildings and their environment in order to contribute to the reduction of sedentarism and with this to the obesity, overweight and eating disorders.</p>
<p>(ADDED, P.O. SEPTEMBER 5, 2015)                  Article 19 Bis.- Within the scope of their competence, the municipal governments, the educational authorities and other corresponding instances shall promote actions aimed at regulating street commerce near schools, watching over, where appropriate, that during school hours, as well as in the hours close to the entrance and exit of educational institutions, the sale of foods low in nutritional content that favor obesity, overweight or eating disorders is avoided.</p>	<p>Article 19 BIS.- Within the scope of their competence, the municipal governments, the educational authorities and other corresponding instances shall promote actions aimed at regulating street commerce near schools, watching that during school hours, as well as in the hours close to the entrance and exit of educational institutions, the sale of foods with low nutritional content that promote obesity, overweight or eating disorders is avoided.</p>

Among the main contributions to the proposal are the following:

The name of the law is amended to read "Law for the prevention of obesity, overweight and eating disorders". It is also proposed to establish as an obligation the prevention and integral attention of the problem.

It includes the participation of the private, social, governmental and non-governmental sectors. The institutions responsible for its application are the Ministry of Health and the Ministry of Public Education.

It is considered to include psycho-educational strategies, in order to establish protective factors, for this purpose it is proposed to include a subject at secondary school level developed by experts in these issues from different disciplines such as nutritionists, psychologists, physicians, physical culture.

In order to enforce the regulations, a technical secretary with extensive experience and a minimum of a master's degree is proposed, among other requirements. It is the responsibility of the technical secretary to respect the agreements, grant certifications, distribute the allocation of subsidies.

It is proposed that eating disorders be included in a real way and not only mention them as most of the laws of the country do, with the intention of carrying out prevention and timely care.

Provide active breaks during the workday for physical activation in order to contribute to increased productivity, reduction of injuries and absenteeism.

It is proposed to the institutions to grant mandatory budget for prevention, combat, as well as the creation of infrastructure for attention and research centers with trained human resources.

Article 16 proposes the consumption of food in educational centers with the necessary nutritional requirements for a healthy development, for which manuals made by specialists in clinical nutrition are proposed.

Research centers are proposed that have adequate infrastructure to carry out actions for the control, prevention and care of overweight, obesity and eating disorders.

Strengthen programs that contribute to exercising the right to physical activity in the different stages of life.

Municipal governments will provide safe spaces for physical activity.

### **Conclusions and recommendations**

After the analysis we can conclude that economic theory has used several approaches to review the phenomenon of obesity. One of them, the most developed, aims to apply the traditional theoretical analysis in which individuals freely choose what to eat and the time they devote to exercise (Temporelli and Monterubbianesi, 2016; Lakdawalla and Philipson, 2002). Likewise, evidence has shown that food choices are generally habitual and occur without conscious effort on the part of the subject (Neal and Wood, 2007; Neal, Wood, and Quinn, 2006).

From an economic perspective, the presence of market failures linked to this issue should be noticed (Mussini and Temporelli, 2013; Temporelli and Mussini, 2012). Inefficient situations have been identified both due to the existence of information problems and the presence of externalities. The existence of market failures (supply/demand), and the inefficient allocations they generate from a social perspective, justify the need for some kind of intervention or regulation of the functioning of markets linked to such problems (Sunstein, 2013).

In reference to information and communication problems, they manifest themselves in different ways. On the one hand, in the difficulty for people to know the characteristics of the good being consumed, with the consequent bias towards the choice of lower quality products. Therefore, the need to present a clear, precise and unambiguous plan of action can have a positive effect by generating incentives to move from the initial situation and have conscious choice options.

It is evident that the problem to be solved is extremely complex. If it is recognized that agents face bounded rationality, relevant questions arise as to which instruments are the most appropriate. Finally, attention should be paid to cognitive failures and the appropriateness of designing other instruments should be considered (Castellano, A., Temporelli, K., and Chaz, S. M. 2017).

Although classical approaches relating lifestyles and the development of childhood obesity have focused on the importance of physical activity and diet, international scientific evidence increasingly clearly shows the importance of sleep, as well as emotional well-being, considering results that indicate the association of overweight and obesity with the risk of depression, anxiety, low self-esteem and body dissatisfaction in children and adolescents in maintaining a healthy weight, both directly and through their influence on physical activity and eating (Moradi, Mozaffari, Askari, & Azadbakht, 2021; Sutaria, et al. , 2019).

Recent research results affirm that treatments aimed at weight loss based on restrictive diets are not effective in the long term and may even compromise the patient's health and well-being. According to the results obtained it is intended to be oriented in this direction, some researchers have considered changing the focus of obesity treatment to a paradigm focused on health and not on weight loss, associated with parameters of physical and psychological well-being, that is to focus primarily on health at any size (HAES) (Cadena-Schlam, L., and López-Guimerà, G. 2015).

To conclude and coinciding with the results of the data obtained, in a Harvard University research, it was concluded that obesity is a "contagious disease" that is transmitted not only by pathogenic elements, but through the links that are established in social, family, friendship or company environments of the sufferer. This study indicates that when a person gains considerable weight, the possibility that his or her partner, family members or friends will also gain weight increases. Plan of action for the prevention of obesity in childhood and adolescence, PAHO, (2014). Washington, D.C., USA

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