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Obesogenic Cities: Urban Health and Social Inequalities Among Women in United States, France and Mexico

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Abstract

During the last three decades the number of obese has doubled in most of the western countries. Approaches from a political-economical perspective have derived in a radical war on obesity which focalizes in regulations of the food production system. On the other side, most of public health initiatives assume obesity as a result of toxic environments and the lack of discipline on human behavior and living styles. As a result, the consideration of obesity as a disease has derived in a major problem stigmatizing the bodies which do not correspond to the standards of the Body Mass Index (BMI), accepted as the universal model to measure a healthy body. By contrast, when paying attention to cultural context, and taking into consideration both the social construction of the BMI and the figure of the healthy body, we can better appreciate how the war on obesity in western societies is gendered, racialized and urbanized. An interdisciplinary reading of obesity, and a constructivist dialogue between political anthropology, urban health and gender studies, allows to a better understanding of social stigmatization when attacking obesity in the surface of the body figure. In synthesis, war on obesity creates a great opportunity to analyze contemporary urbanism and the intertwined profiles of healthy, urban and human embodiment. This paper explores the official statistics of obesity in the United States, France and Mexico, and criticizes the construction of a War on Obesity who minimizes the urban dimension which reveals social, economical and gender variables to understand how obese people vary from rich, poor, men and women. The aim is to introduce the notion of “obesogenic city”, crossing both social inequalities and obesogenic environments from an urban approach.

Keywords: *obesity, social inequalities, inequalities of health, urban health, obesogenic cities*

1. INTRODUCTION

There is no doubt that obesity has become one of the most important issues of contemporary society. Medical and economical approaches have produced a vast bibliography on the causes and consequences of fat and its connection to food dynamics, global processes and health institutions. However, the individual and behavioral approaches, privileged in public health studies, are limited in explaining how obesity was constructed as a disease, and how the politics of the body became a privileged instrument to organize the 21st century's demographics and territories. Global health, as a political field, is often simplified to epidemiological interventions. Human bodies become a source of information and the object of any possible intervention. Fat bodies, as a consequence, are simplified as the evidence of a disease, identified and labeled as "obesity", and being fat is easily explained as a consequence of wrong decisions made by individuals who live in a toxic environment. Obesogenic urbanism, as a complex approach from both health and urban dynamics, offers a different approach to think obesity from its biocultural dynamics and political mechanisms, surrounded by environmental and social factors. The hypothesis of a social and political project of "healthy-slim-body", supported on the ideas and representations of health and beauty, introduces both geographical limits and biocultural regulations. Obesity, however, is not just a diet and sport issue, but a social anthropological construction implying urban, medical and biopolitical processes and mechanisms of a health governance legitimized when justifying "life protection".

Before suggesting quick explanations or looking for the causes of the worldwide obesity rates increase in the last decades, it is necessary to contextualize in detail how obesity became a problem and how food availability and the perception of physical health in the different geographic areas evolved. In this chapter the issues are introduced from an institutional context and on an international scale, in a critical exercise of the approach and positioning of public health on obesity and the transformations experienced by the population regarding the ways they eat, exercise, and live. A second section will allow for the introduction of the notion of an obesogenic city from the emergence of the conjunction between obesity and city, mixed with issues like healthy eating, gender, socioeconomic status, and the urban context. Finally, in the third section of the chapter the issues of urban obesity and female vulnerability are outlined from a general comparison and based on statistics of the United States, France, and Mexico. The main objective of this first chapter is, on one hand, to introduce the complexity of obesity and its social and urban dimension, to later justify the relevance of an urban analysis as an exceptional approach of the issues of obesogenic cities in Western contemporaneity.

War on Obesity: The Socio-spatial Creation of an Epidemic

The role of public health in social and economic dynamics has gained importance, especially since World War II when there was an emphasis made on the reduction of youth and elderly, increasing the longevity of the population in the countries with greater economic growth. Microeconomist Angus Deaton, with an interest in consumer behavior and health economics, states that the mortality causes in the contemporary world isn't tuberculosis, or diarrhea, or

respiratory infections, but health problems such as cardiovascular diseases, strokes, high blood pressure, and certain cancers. The author considers that the advances regarding to life expectancy aren't due to the vaccination systems and hygiene programs, but to the advances in the field of medicine and human behavior (Deaton, 2013: 249). There is an emphasis on health as something exclusive of medicine, combined with the contemporary trust that places on the economists the certainty about the ways to repair and rebuild the political and social systems. Consequently, the problems as well as the solutions to health issues are usually conceptualized based on the powerful voices of medical scientists and finance experts that should solve the crisis and secure human life.

The contemporary "War on obesity" must be positioned beyond the epistemological framework of biomedicine and behavioral economics. War on obesity is also about a "body-project" in which the well-intentioned attack against fatness is diluted, and it is directed to its most evident way: the attack against the increase in the number of obese people. Therefore, the preference for quantitative studies focused on human behavior that accept in an implicit manner that obese people are the actual problem should not come as a surprise. Others like Marion Nestle in his polemical book *Food Politics* (2013[2002]), have insisted that the obesity problem should be delimited within the weakening of food systems due to production and consumption policies. In any case, the truth is that the war on obesity has placed fatness as a main focus of public health debates in different disciplines. Its consideration by the World Health Organization (WHO) as an epidemic, however, must be carefully looked at from the basis of certain "pathology" that would open the doors to new way of biopolitical governance from economic liberalism.

One of the main dangers of the different approaches that address obesity as a disease is precisely the dissociation between the modeling systems of experimental sciences and the humanistic analyses of social scientists. A matter that seems to be left in the hands of nutrition experts and food policies and that, until now, hasn't been able to establish a dialog with other views of obesity where academics, scientist, politicians, activist, and men and women can interconnect common knowledge with mathematical and philosophical analyses in today's world. Furthermore, it has to be recognized that the diet has an important territorial dimension and that the dynamics of health care surpass the medical field and go through constructions of meaning distinctive of other disciplines like history, anthropology, political science, and environmental studies. It is here where urban policies and the ways of living show up as a possibility for the understanding of obesity, and to clarify the main dimensions of the problems when it is analyzed from the most vulnerable human groups.

Obesity should then be understood as a notion historically and socially created, and placed in the context of economic liberalism in its production and consumption dynamics. Also, it must be specified that the War on obesity hides a strategic project of biopower based on size regulation, and the construction processes of contemporary embodiment where the patterns of Western diets and physical activity patterns play a fundamental role. For a greater study precision, the emphasis on female vulnerability before social and spatial construction of obesity, reveals the limitation of political mechanisms as much in body construction and the configuration of cities,

as in the links between body and city based on size, race, gender, socioeconomic status, and place of residency.

The Construction of the Obese body as a Problem

The notion of human corpulence and its variations have a long history in the Western world. In *Les métamorphoses du gras. Une histoire de l'obésité* (2010), Georges Vigarello details how during Greece and Rome's classical era corpulence was already criticized for its link to clumsiness, especially when it came to warriors. During the Middle Ages contradictions are seen between corpulence as a sign of opulence and at the same time as a sin, a reflection of evil in the constituent humors of the body. It is barely at the beginning of the modernity that fatness was considered a natural and social condition. In one of Shakespeare's fragments, the positive affirmation of a fat body can be appreciated:

CAESAR (aside to ANTONY): *Let me have men about me that are fat,
Sleek-headed men and such as sleep a-nights.
Yond Cassius has a lean and hungry look.
He thinks too much. Such men are dangerous!*
(Shakespeare, Julius Caesar, 1.2.192-196)

In the 17th century the term "obesity" is used by English physician Tobias Venner in his title *Via Recta ad Vitam Longam* (Haslam, 2007) to substitute "corpulence," a condition related to the lack of physical activity; in this way, the connotation of obesity as an ailment appeared, and it was positioned as a condition of interest for the medical field. But it is not until the 20th century that obesity would become one of the main challenges of medicine and body regulation. In the 1980s, food anthropologist Claude Fischler considered that modern societies had become "lipophobic" and that the desire to be thin and the obsession to be "in shape" had led to diverse eating disorders such as bulimia and anorexia (1987: 255). This doesn't mean, as commonly interpreted in simplistic arguments, that in previous ages obesity was considered something acceptable and valuable. However, the acceptable measurements of fatness have changed in the last decades until arriving at their greatest ideal of thin bodies.

Since 1980, the United States has the highest numbers of obesity over any other country due to the relationship between "ailment" and the number of inhabitants. By 1995, the official data from the Institute of Medicine showed that about 300,000 Americans died each year due to health problems linked to obesity, and that the health national expenditure by this group surpassed US\$70 billion, an amount equivalent to the entire GDP of countries like Norway or Czech Republic (Pool, 2001, p.7). Nevertheless, the obesity problem had been directed to a combination of explanations focused on individual responsibility, which prevails until today. As evidence, this perspective can be confirmed in a recent study about the opinion of Americans on obesity. As it happens in 2016, although the majority of researches in the field of medicine agree that the contemporary problem of obesity is due to a combination of interactions between the environment and human genetics, the recent survey of the American Society for

Metabolic and Bariatric Surgery (ASMBS), and the National Opinion Research Center (NORC) of the University of Chicago, reveals that 2 out of 3 Americans believes that obesity is due to the lack of individual willpower when it comes to food and physical activity (NORC, 2016). Therefore, we are facing two problems when approaching the phenomenon: on one hand, quantitative studies favor calculations of mortality rates and economic impact, and on the other hand, the medical discourse and the media systems have opted for individualistic explanations that blame obese people for the condition of their bodies.

According to Fischler, food socioanthropologist, two problems appear from the start when facing the obesity phenomenon, which are historical and anthropological. Historical because first it would have to be verified that the reprobation of obesity is something new, modern, and western; and anthropological because if obesity doesn't have a natural foundation, but a cultural one, the patterns of representation of a fat body would have to be clarified (1987: 258). Emily Massara, for example, in her study of obese body image among Puerto Ricans with a precarious socioeconomic status, notices important divergences between the medical and cultural definitions of being overweight, because for this community the medical standards are much more limited than the cultural evaluation (1980: 291).

Accepting that obesity has direct health consequences, and therefore it has become one of the main concerns of public health in the national and international agendas of Western countries, corpulence and fatness as physical evidence of obesity have a very peculiar approach in the medical and cultural field. Consequently, elements linked to physical appearance and health care are intertwined in the phenomenon of obesity; and, diet as well as physical activity play a fundamental role in the delimitation and approach to health and body shape. A detailed study of both aspects can clarify the historical and anthropological creation of obesity as a problem.

2. METHODOLOGY

A Comparative Exercise as an Alternative for Understanding the Obesogenic Urban Environment

Comparison as a methodological exercise, and from local and international orders, allows for the creation of information not only with reference to a universal or local average and in a given context, but also from the constant opposition of the variables in contexts and situations where there are similar socio-spatial structures, but that work and are determined in a different manner. In addition, the territorial reduction of urban forms where obesity intertwines in a set of social problems of a collective and individual nature, and with activation and deactivation mechanisms of different social practices, favors the creation in a systematic manner for a framework analysis that has the capability to differentiate and respect the individual profiles of the inhabitants including the time and place in which they live.

The selection of the United States, France and Mexico is based on the evidence of urban inequalities in developed countries and supported by the reports from official organizations like the WHO and the OCDE about the prevalence of obesity and the importance of socioeconomic and geographical factors related to health. Although, in rural areas the prevalence of obesity is also significant, the multi-localized comparison exercise is more explanatory when it is about urban spaces because it reveals the current globalization processes in a direct manner. Additionally, the questioning of abundance by urban societies that continue to be imposed as a model in every country, is, at the same time, an interpretation of rurality and displacement of populations. France, United States and Mexico, in this sense, make up a triad that share the prevalence of obesity, urban inequalities, problems of socio-spatial exclusion, and territorial stigmatization. At the same time, the paradox of urban spaces that are part of the model cities of contemporary urbanism like the cosmopolitanism of New York, the urban policies of Paris, and the socioeconomic competitiveness of Guadalajara, contrast the socio-spatial dynamics seen from outside and allow for the emergence of an updated and systematic analysis about the current urbanization processes from a concrete problem of public health.

To establish a general comparison of obesity in three countries as different as the United States, France, and Mexico, national surveys data regarding obesity and nutrition are compared. The National Health and Nutrition Examination Survey (NHANES) in the United States, the *la Enquête nationale sur l'obésité et le surpoids* (Ob-Épi) in France, and the *Encuesta Nacional de Salud y Nutrición* (ENSANUT) in Mexico. The three surveys possess national representativeness and a data update up to 2012. Additionally, in the measurement of obesity, all three use the BMI reference from 2004 suggested by the WHO¹. In spite of the regularity being different (biannual for NHANES, triennial for Ob-Épi and every six years for ENSANUT), the three surveys allow for the reconstruction of data of the last decades.

In the specific case of this investigation, only tri-national references are shown regarding obesity and its link to poverty. The selection of data referring to the adult population is based on the greatest vulnerability that is reported in the three countries in relation to the women in these age ranges. To strengthen the data, it was necessary to contrast the surveys about obesity and nutrition with some censuses², and with some economic and gender surveys³.

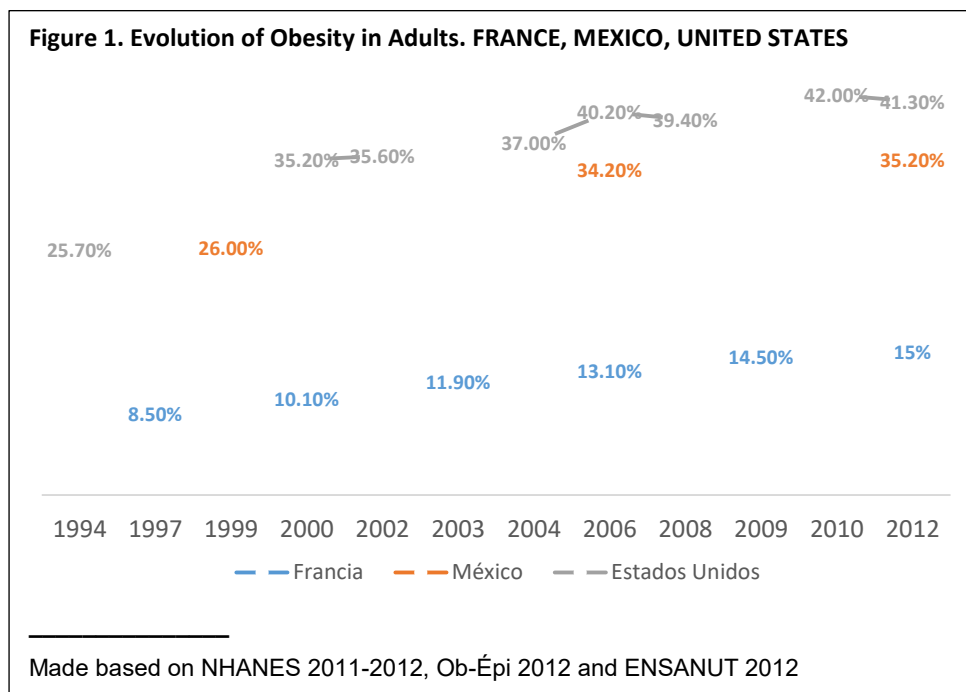
¹ The NHANES 2011-2012, Ob-Epi-Roche 2012, and ENSANUT 2012 surveys evaluate the Body Mass Index (BMI) based on the standards of the WHO in 2004. A BMI between 25kg/m² and 30kg/m² is considered overweight, while a BMI greater than 30kg/m² is considered obesity. In this one there is no distinction made of obesity class I (30-34.99 kg/m²), class II (35-39.99kg/m²) and class III (≥40kg/m²).

² US Census Bureau in the United States, INSEE in France, INEGI in Mexico.

³ There are some data that have been obtained from a mixture of economic surveys and analysis like the ones from ENIGH and CONEVAL in Mexico, just as the New York City PLanning reports in the United States and the *Enquête Nationale sur les Violences Envers les Femmes* in France (ENVEFF).

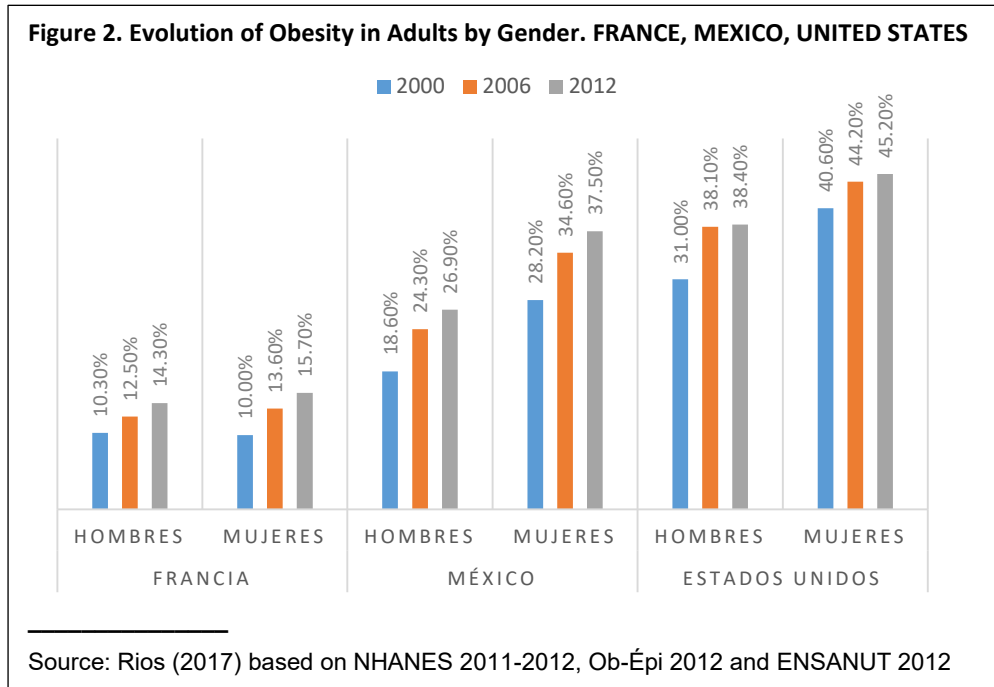
3. RESULTS

It is important to emphasize the general deceleration of obesity that took place in the period of 2006-2012 in relation to the most significant and constant evolution that took occurred in the three countries in the period of 2000-2006. On the other hand, the investment reported by NHANES in the United States during the period from 2011-2012 implies important success of the actions carried out at a national level, but it should be compared to a more specific population analysis of the age ranges and the gender of the individuals. In the French case, for its part, although it keeps a relatively low rate, it has almost doubled in less than two decades, and the Ob-Épi reports that in 2012, out of the 32.3% of French adults⁴ who are overweight, 15% has an obesity problem [Figure 1].

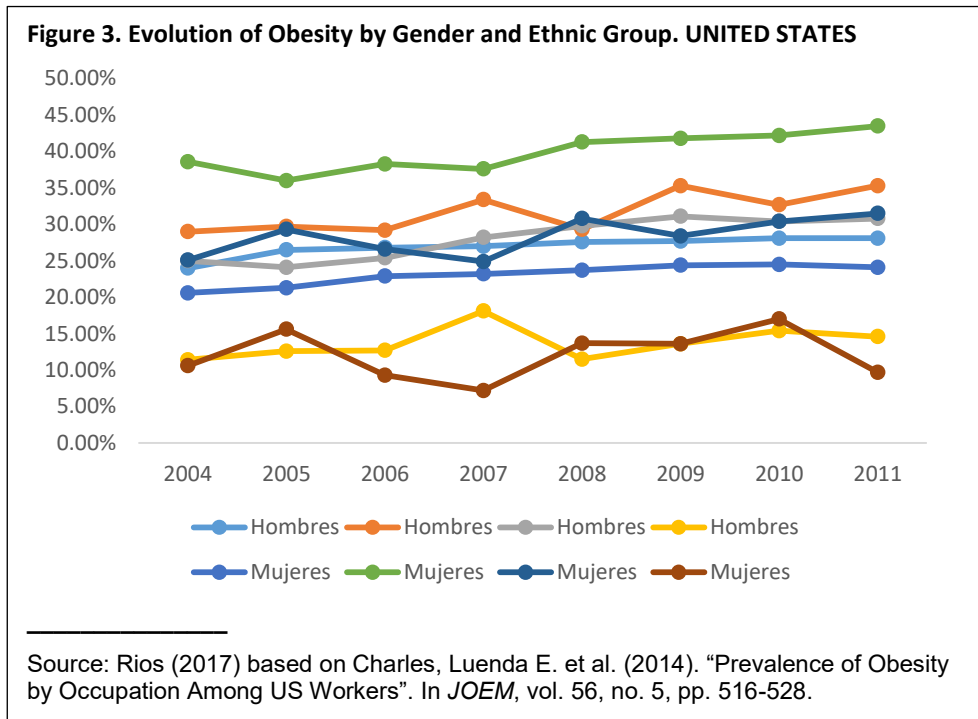


When comparing the rates based on gender, in the three countries, obesity in women is reported in a higher percentage than obesity in men and with a constant evolution in relation to age. In Mexico, for instance, during the 24-year period studied, between 1988 and 2012, the combined prevalence of overweight and obesity had a sustained growth in adult women. This number doubled from 34.5 to 70.8%, which meant a 4.4% increase per year [Figure 2].

⁴ The age in which someone is considered an adult in the statistics is not the same in the three countries. While in France people are considered adults from the age of 18 in all its statistics, in the NHANES and ENSANUT surveys of the United States and Mexico adult age starts at 20 years of age.



The importance of taking into account the relationship between the evolution of obesity rates according to gender mostly resides in the different implications that corpulence has for men and women. The corpulence differences are strengthened with differences of a social nature and the inequalities are greater for women. Thibaut de Saint Pol, in his comparative analysis of obesity in the European continent, shows that the higher the education level of women, the lower the obesity rate (2010: 132). In the same way, regarding household tasks, the rates increase when dealing with housewives, and also in relation to the amount of domestic work, that is to say, that greater hours of domestic activities correspond to an increase in obesity rates (id: 133).

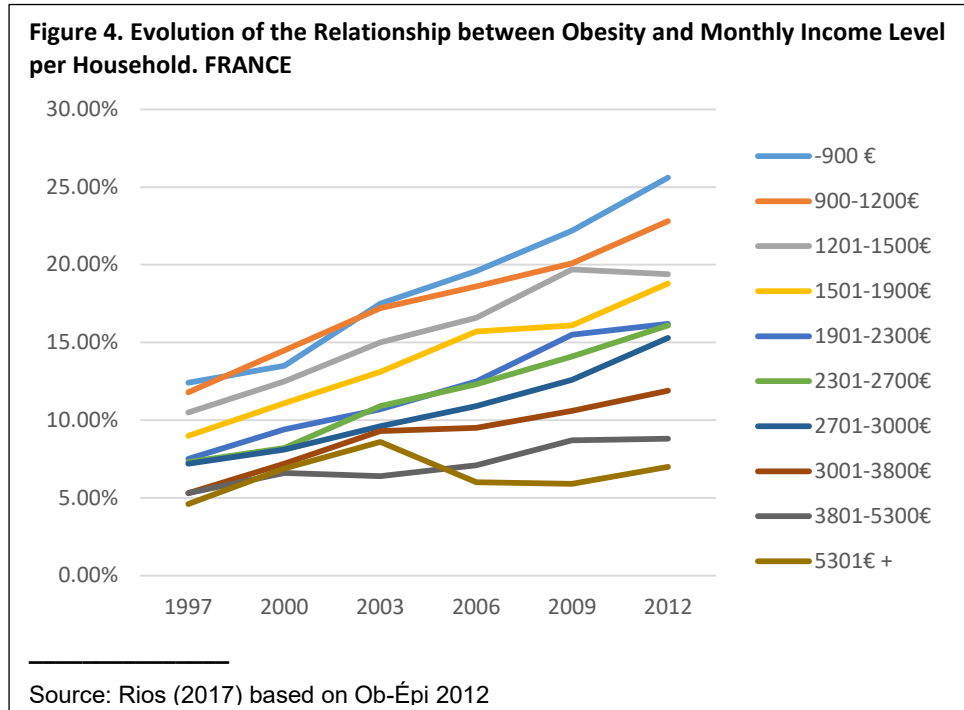


A variable that would be advisable to clarify the multiple factors among body size is the obesity rate in relation to ethnic origins. Even though it is not a decisive factor in Mexico, and in France it is a sensitive topic that doesn't allow for the categorization of specific statistics based on this variable, the consistency of American data allows for the establishment of the discussion around the cultural origin and ethnic background factors and the role they play in relation to the prevalence of obesity [Figure 3].

Another important factor in connection with the presented differences on the obesity rates is the education level. In France, for instance, the Ob-Épi 2012 shows that the prevalence of obesity gradually decreases at the same time as the education level increases, so the obesity percentages seen are 24% for elementary school, 21.5% *Niveau 3ème*, 14.3% *Bac*, 12.2% *License*, 8.9% Master's and only 7.3% of people with a PhD. This data gains significance when it refers to the education level of women, where a higher level of professionalization and education is related to the decrease in corpulence (Saint Pol, 2010: 132).

When it comes to socioeconomic status, in Mexico, the analysis of the evolution of the cost per calorie based on the data from the *Encuesta Nacional de Ingresos y Gastos de los Hogares* (ENIGH) in the period of 1992-2010 show that food consumption patterns in households vary significantly according to income (Hernández Licona et al., 2012). The study shows that low-income households consume cheap high-calorie products. Since the price per calorie has decreased in Mexico in real terms between 1992 and 2010, the lowest income households purchase high-calorie foods that usually contain a lower amount of nutrients but higher energy

density, which increases the risk of becoming overweight and obese. In the specific case of Mexican women, in 1988 obesity was less important in the lowest income quintile, but in the period from 1988 to 2006 the prevalence of obesity increased more in the lowest income quintile than in the higher quintiles.

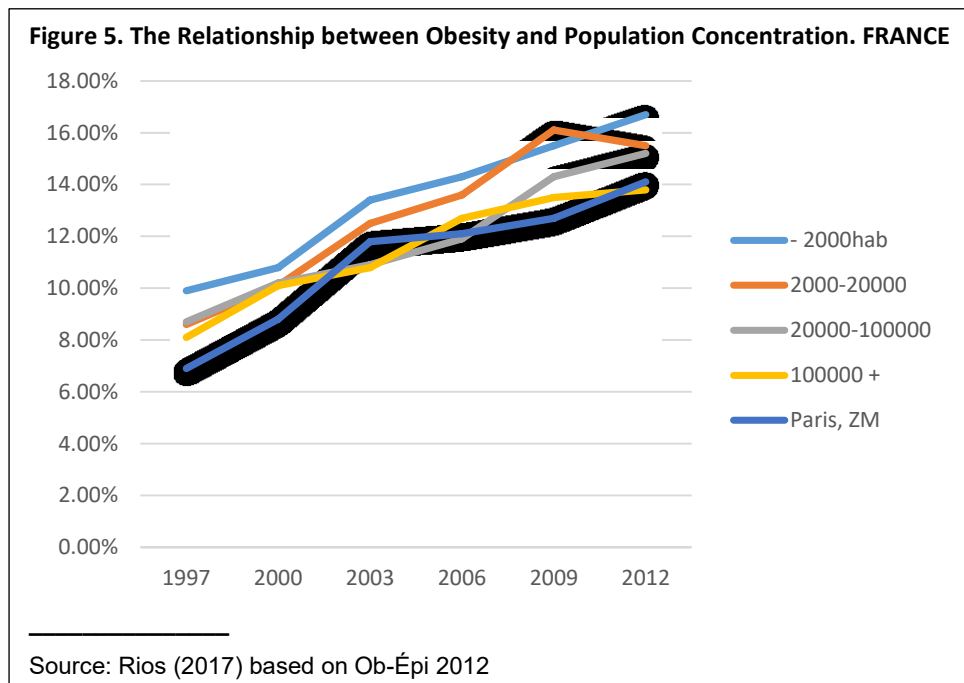


This same relationship can be seen in the French case when the evolution of obesity is contrasted in relation to income classes. As income increases, prevalence decreases, which leads to thinking about the socioeconomic determinants of obesity and the role of the food market and accessibility as a decisive factor [Figure 4].

The socioeconomic determinants of the three countries point to the intensification of obesity as a risk in the population groups that live in poverty. A key element in this dimension is the element of food accessibility due to availability. In Mexico, for instance, lower availability of fruits and vegetables are recorded in rural areas, where poverty levels and exclusion are higher. On the contrary, the availability of products high in fat and sugar as well as the access to sugary drinks has had a significant increase in the last decades with regard to the coverage of the rural market.

In France, the report made in 1998 by the *Comité de la Santé publique* (HCSP) on the evolution of food consumption from 1900 to 1990 analyses the steady increase in consumption of meat, fish, eggs, and dairy products, at the same time as the increase in sugar consumption. In the

same period, the report reveals a constant decrease in physical activity as a consequence of the transformation of domestic chores, physical work, and transportation, among others, which explains the great imbalance of energy contributions (INSERM, 2014: 85-86). Concurrently, the greater urbanization also has negative implications regarding eating habits and the prevalence of obesity. The transformations in the last decades in relation to the work force and leisure activities have increased the obesity risk factors in all the countries; however, it is in low and middle income areas where prevalence is most accelerated (OMS, 2003: 24).



Food dynamics based on the processes of urbanization and organization of work activities have modified significantly throughout the 20th century. The increase in the purchase of industrialized products and food outside the home can be corroborated in different studies (Poulain, 2002; AFSSA, 2009; INSEE, 2009). In France, for instance, the increase in obesity prevalence in smaller cities is more accelerated than in medium-sized and large cities [Figure 5]. In addition, the French survey *Emploi du temps* made by the INSEE shows that mealtimes in France concentrate in three specific moments throughout the day, and that food practices outside the home have multiplied. The same study shows that men are mainly the ones that eat outside the home and that commensality has progressed during Saturdays and Sundays (Larmet, 2002: 208-210). For women, eating habits and their relationship to domestic dynamics, facing the growing incorporation to the work force, have emphasized the inequalities in domestic chores. As observed by Soledad Murillo in *El mito de la vida privada* (2006), women's free time at home is filled with domestic chores.

4. DISCUSSION

From the notion of food risk and physical activity, the relationship between the prevalence of obesity and other chronic degenerative diseases like diabetes, hypertension, dyslipidemia, and other cardiovascular diseases is accepted. The WHO affirms the relationship between mortality rates and their direct relationship as excess weight levels in relation to BMI increase, explaining that when the BMI increases, the amount of people with one or more related illnesses also increases (2003: 68). The data of mortality rates in Mexico due to obesity related diseases show an increase of over 10% in the period from 1980 to 1998 (Rivera et al., 2002). In France, according to the Ob-Épi 2012, the probability of any cardiovascular risk (hypertension, diabetes, dyslipidemia) appearing among the obese is 14 times more significant than in people of normal corpulence, and 5 times more common among people with overweight.

This comparison based on surveys with national representativeness allows for the observation of some factors present in the three counties in relation to obesity prevalence. Among them, the greater vulnerability of adult women, low income levels, the relationship with education levels, and territorial marginalization. The surveys' designs and the creation of samples do not allow for an analysis in a local sphere or of the psychosocial implications like stress and socioterritorial integration. A section in relation to perception of financial difficulties is included only in the case of the French; and the results show that the corpulence of individuals increase in relation to those that state financial difficulties with a 30% difference between the ones that say that, "they're kind of making it," and the ones that confess that they cannot move forward without getting into debt (ObÉpi, 2012).

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