

# Predominance of overweight and obesity in workers at the San José de Chincha Hospital, Peru 2023

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## Abstract

The study reveals a high prevalence of overweight and obesity among workers at the San José de Chincha Hospital, with significant implications for occupational health. A worrying distribution of weight was identified, with the majority of workers not eating lunch or dinner at the appropriate time. In addition, the nutritional quality of meals provided in the workplace is monitored for poor quality, which can contribute to overweight and obesity problems. Nutrition education programs, regular physical activity, and psychological support are recommended to prevent obesity among hospital workers.

## Introduction

The present study on the prevalence of overweight and obesity in workers at the San José de Chincha Hospital is of utmost importance in the current context of occupational health. Obesity and overweight are considered public health problems worldwide, and their incidence in the workplace represents a considerable challenge for occupational health management. It complied with ethical standards, since the participation by the workers was voluntary, within the framework of its Annual Occupational Medical Evaluation. And their answers were kept in the custody of the Occupational Health Service.

According to the World Health Organization (WHO), obesity has reached epidemic proportions globally, with an estimated 1.9 billion adults overweight in 2016, of which more than 650 million were obese. These figures have led to a significant increase in chronic non-communicable diseases, such as type 2 diabetes, cardiovascular disease, and certain types of cancer. In addition, obesity is associated with decreased quality of life, absenteeism from work, and high costs to health systems.

The presence of obesity and associated pathologies in health workers has been evidenced in previous studies, which underlines the importance of addressing this problem in a comprehensive manner such as that of **Al-Daghri NM, Al-Attas OS, Alokail**

**MS**, in 2021 in their study "Gender differences in the prevalence of obesity and associated cardiovascular risk factors among health professionals in central Saudi Arabia" examines Gender disparities in the prevalence of obesity and cardiovascular risk factors among health professionals in central Saudi Arabia, where the presence of obesity and associated pathology in health workers with prevalence between one gender or the other was evidenced. Like **Gutiérrez 2022** where it was sought to specify the relationship between factors related to overweight and obesity in health personnel in a Basic Hospital in Ecuador, 2022. Proposed under a quantitative approach, the type of research was basic, correlational, associative and the study design was non-experimental, for data collection the technique used was the survey, for which a questionnaire was applied based on related factors and a data containment sheet, where the age, age and age were determined. gender, weight, and height. And it was concluded that of the 100% of the health personnel of the Basic Hospital in Ecuador, 44% are overweight according to the BMI category, followed by 42.67% who are within the normal and 13.33% who are in the obesity category, because of this the alternative hypothesis is rejected and the null hypothesis is accepted. Therefore, the associated factor is not related to the overweight and obesity of health personnel at a 95% confidence level.

In Peru, this situation was already reflected by Rivera in 2022 in the study on Prevalence and components of premorbid metabolic syndrome in workers insured to social health insurance in an area of moderate altitude, where he managed to analyze the prevalence and components of premorbid Metabolic Syndrome (MS) in workers insured to social health insurance in an area of moderate altitude (Chachapoyas, Peru). Materials and methods: A cross-sectional study was conducted with data from different types of workers belonging to an EsSalud program focused on diagnosing premorbid MS, obesity and overweight in workers in their workplaces during the period October 2017 to August 2018. We worked with data previously recorded by the aforementioned program. MS was diagnosed according to the criteria of the "Harmonizing the Metabolic Syndrome" guideline. Results: A total of 1021 subjects were included. The overall prevalence of premorbid MS was 32.8% (312/952). In men, the prevalence was 35.4% (160/452) and in women 30.4% (152/500), with no statistically significant differences between the sexes ( $p=0.101$ ). The frequency of MS components in the total study population was: central obesity 73.4%, hypertriglyceridemia 45.6%, low HDL-C 66.3%, hyperglycemia 10.0%, and elevated blood pressure 6.5%. Participants with premorbid MS were significantly older in age than those without premorbid MS

For all of the above, the present study is framed in the need to understand in depth the prevalence of overweight and obesity among health workers, as well as the associated factors, in order to design effective interventions that promote healthy lifestyles and contribute to the prevention and management of these conditions.

In the workplace, the impact of obesity and overweight goes beyond individual health implications, as it also affects productivity, absenteeism, medical costs, and job safety. Healthcare workers, in particular, face specific challenges due to the demanding and stressful nature of their work, which can influence their eating habits and their predisposition to become overweight or obese. Therefore, this study seeks to contribute to the understanding and approach of this problem in the specific context of the San José de Chincha Hospital.

### Methodology

The study was conducted using a quantitative approach, with the investigator using his or her judgment to select the items in the sample. A quota sampling design was used, which involved classifying

the population into different categories to ensure the representativeness of the sample.<sup>1</sup>

### Design

A systematic probability sampling design was used, which allowed the selection of sample components in a systematic manner, ensuring that each of the components of the population was numbered and facilitating the identification of the sample. This procedure was particularly useful given the size of the population and the need to ensure the representativeness of the sample.<sup>2</sup>

### Population and Sample

The study population consisted of 242 workers from the San José de Chincha Hospital. The sample was selected using a quota sampling approach and a systematic probability sampling design, which allowed a representative sample of the study population to be obtained.<sup>2</sup>

I hope this information is helpful. If you need more details on a particular aspect, don't hesitate to ask.

### Statistics

The study revealed a worrying weight distribution among hospital workers, with a high percentage of overweight and obesity. It was identified that most workers did not eat lunch or dinner at the appropriate time, and a high prevalence of overweight and obesity was found in different occupational groups.

### Validity and Reliability of Assessment Instruments

To assess the nutritional quality of meals served in the workplace, a standardized questionnaire validated by the ILO was used that included questions on the composition of meals, the frequency of consumption of foods high in carbohydrates and saturated fats, and workers' perceptions of the nutritional quality of meals. This questionnaire was adapted to the San Jose de Chincha hospital and applied to the annual average occupational evolutions of the workers, by the Bachelor of Nutrition of the institution, with the systematic surveillance and advice of the physician specialized in Occupational Hygiene to guarantee its suitability and relevance for the context of the study. In addition, a pilot of the questionnaire was carried out with a small group of workers to assess their comprehension and clarity. The internal consistency of the questionnaire was assessed using reliability tests, such as Cronbach's alpha coefficient, to ensure the consistency of responses.

This approach ensured that the assessment instruments used in the study were valid and reliable,



Regarding adequate food consumption, it was found that most of the workers evaluated (192 out of 242) reported not having lunch or dinner at the appropriate time. In addition, 238 workers indicated that they are

prohibited from leaving the hospital during mealtime, despite the fact that Peruvian laws do not regulate mealtime. Only 100 of the 242 workers receive food in the hospital cafeteria, and only 35 reported eating at the right time.

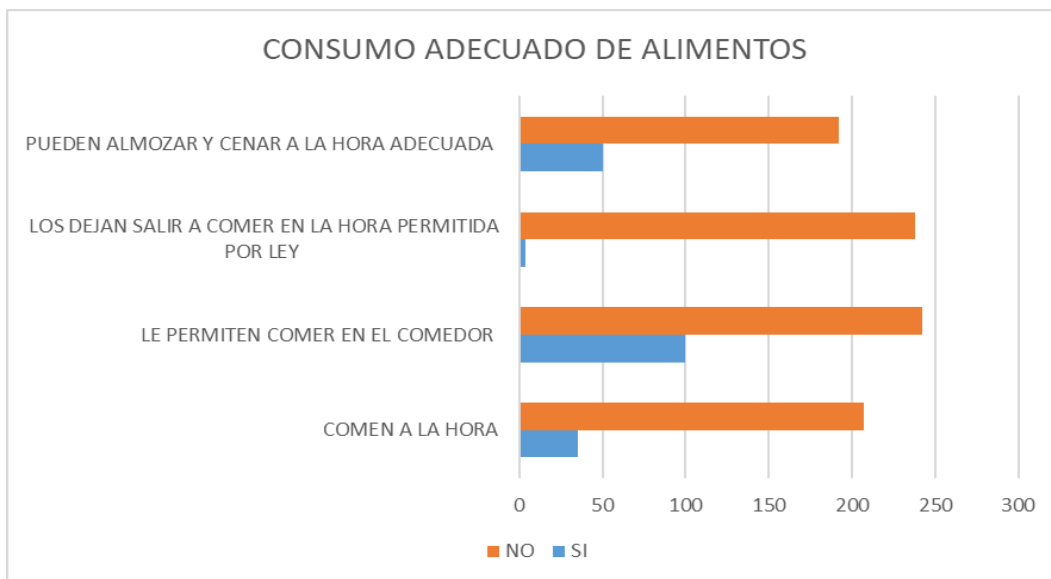


Fig 3: Consumo Adecuado De Alimentos

With regard to the type of contract, it will be noted that 96 appointed workers are allowed to receive food and

4 of them are allowed to go home to eat. In contrast, 90 of the interviewees are not allowed to go out to eat or provided with food in the dining room.

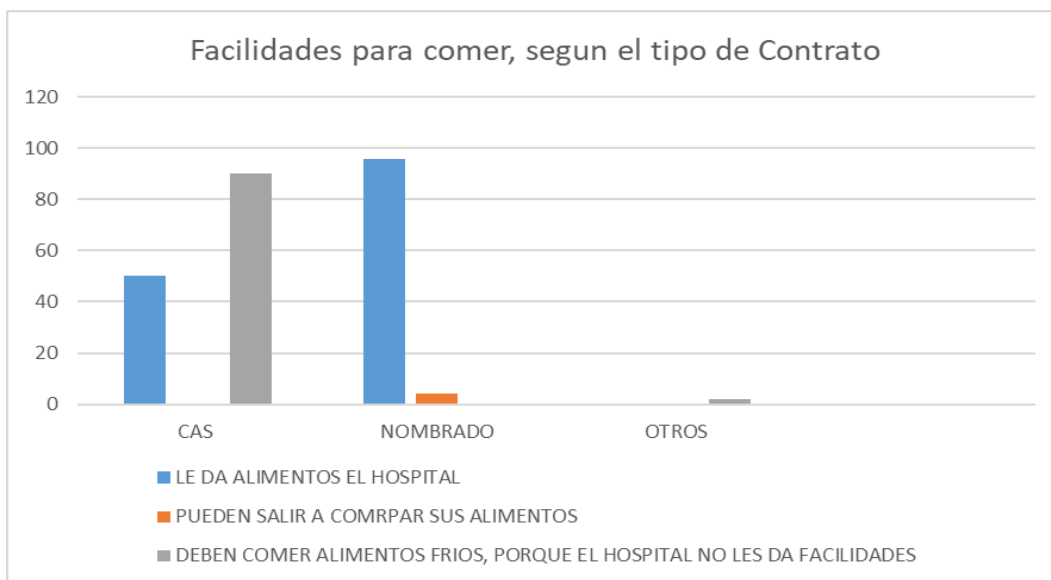


Fig 4: Facilidades para comer, segun el tipo de Contrato

Regarding the quality of the food in the dining room, it is evident that the food offered is rich in carbohydrates and saturated fats. This situation may contribute significantly to the problems of overweight and obesity observed among the workers of the San José de Chincha Hospital. It is crucial to improve the nutritional quality of meals provided in the workplace to promote employee health and well-being.

Discussion

The results of this study show that the prevalence of overweight and obesity is high among the workers of the San José de Chincha Hospital. This is worrisome, as overweight and obesity are risk factors for developing chronic non-communicable diseases, such as diabetes, hypertension, cardiovascular disease, cancer, and some types of cancer.

Factors that could be contributing to the prevalence of overweight and obesity in workers at San José de Chincha Hospital include work stress, long shifts, and irregular work schedules.

### Recommendations

Based on the results of this study, the following programs are recommended for the prevention of obesity in the workers of the San José de Chincha Hospital:

- Nutrition Education Programs: These programs should provide information about a healthy diet and proper eating habits.
- Regular physical activity programs: These programs should promote regular physical activity as part of a healthy lifestyle.
- Psychological support programs: These programs can help workers manage stress and anxiety, which can contribute to obesity.

### Conclusions

The data from the study show that 50% of the workers at the San José de Chincha Hospital are of adequate weight, 70% overweight, 60% obese type 1 and 20% obese type 2. These results are worrisome, as overweight and obesity are risk factors for developing chronic non-communicable diseases, such as diabetes, hypertension, cardiovascular disease, cancer, and some types of cancer. The analysis of the data by profession shows that psychologists are the ones with the highest percentage of overweight and obesity, followed by doctors and nurses. This can be caused by a variety of factors, including work stress, long shifts, and irregular work schedules. The results of this study suggest the need to implement health promotion and obesity prevention programs aimed at the workers of the San José de Chincha Hospital. These programs should include nutrition education, regular physical activity, and psychological support.

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