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A comprehensive approach to **improving
nutrition** at the workplace:
A survey of Chilean companies and
tailored recommendations



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First published 2012

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ILO

*A comprehensive approach to improving nutrition at the workplace:
A survey of Chilean companies and tailored recommendations*
Santiago, International Labour Organization, 2012

ISBN 978-92-2-126948-9 (print)
ISBN 978-92-2-126949-6 (web pdf)

Also available in Spanish *Un enfoque integral para mejorar la alimentación y nutrición en el trabajo:
Estudio en empresas chilenas y recomendaciones adaptadas* (ISBN 978-92-2-326948-7) Santiago, 2012

Catering services / Food / Nutrition / Health in the work place / Occupational health / Latin America / Chile

ILO Cataloguing in Publication Data

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Printed in Chile

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*Good nutrition constitutes a basic human right
and, nevertheless, it has often been ignored in the
context of labour rights.*

preface

Good nutrition constitutes a basic human right and, nevertheless, it has often been ignored in the context of labour rights. Also, it is the essential basis of a productive workforce, yet it is surprising to realize the little importance that is given to good nutrition in the context of the improvement of business productivity and competitiveness. On the other hand, the measures to keep a well-fed and healthy workforce are indispensable elements of the workers' social protection, but frequently those measures are absent from the programmes to improve the conditions of work and occupational safety and health. These relevant facts were highlighted in a book entitled *Food at Work. Workplace solutions for malnutrition, obesity and chronic diseases* that the ILO published in 2005; such study was conceived as a response to the lack of attention given to food at work, and showed the heterogeneity of the national realities, linked to idiosyncratic, cultural, institutional and productive aspects, that reinforced the need to promote the social dialogue on a subject which is not widely discussed but very relevant. In line with this concern, the ILO's educational programme SOLVE, in an effort to integrate the promotion of health in the policies of safety and health at the workplace, as well as in the actions at company level, includes contents for the promotion of healthy eating habits in the workplace.

Chile is not exempt from this global reality. In the last three decades, this country has experienced a significant transformation both in the nourishing habits of its people as well as in its productive matrix. This caused changes that affected, on the one hand, its population, that went from facing undernourishment problems to other issues linked with obesity in just a short time. On the other hand, the labour market incorporated a massive contingent of men and, mainly, women, who joined a socio-occupational fabric characterized by the high concentration of jobs in the sector of services, the technologization of once intensive productive sectors in manual activities, and the still insufficient compliance with the norms of social protection and labour relations in some specific fields. The result of these two processes has generated concern in representatives of the workers, employers, the Government and the academic world, because of the effects that bad nourishing habits would be having on occupational safety and health. Despite this widespread concern, important changes in this matter have not taken place, which is reflected in the few studies made to identify the impact that feeding would be having on safety and health at work, at country level or in specific sectors.

In this regard, by using the analytical framework established by *"Food at Work"* and the obvious need to deepen in the relationship between nutrition and the world of work in Chile, we conceived the project *"A comprehensive approach to improving nutrition at the workplace: A survey of Chilean companies and tailored recommendations"*, turning Chile into the pilot country for this type of research at worldwide level. The project originated in an initiative promoted by SODEXO and EDENRED, leading global companies in food services which are delivered through mess rooms in the workplace and vouchers for the feeding of the workers. The study entailed a comprehensive review that included national and international research into the matter, as well as the governing legal and institutional framework in Chile, together with interviews to representatives of workers, employers, the Government and academia. Finally, a survey was conducted on the perception that the workers have about the different aspects of food in the world of the work. The survey was conducted at country level, and covered the most important productive sectors.

The results and the recommendations that the study shows are multidimensional. It is observed that among the social actors there is a consensus on the importance of food at the workplace, because of its effects on occupational safety and health, and, consequently, on the productivity; some segments where nutrition is structurally precarious were also identified, as is the case of the transportation and forestry industries, or cases where people consume many more calories than the ones they burn, as a consequence of the changes in the production systems, as in mining. However, the same participants indicate that it is difficult to change these schemes, unless both workers and employers are aware of the consequences of a poor diet, which is the outcome of a culture in which self-care is rare, with a relatively greater cost of a healthier diet, and with the absence of public policies that promote healthy food in the world of labour.

All of this would have to motivate an approach at the level of the participants involved, so that there is a promotion, from their own scopes and between them, through social dialogue, of the debate on the importance of food and its effects on occupational safety and health, productivity, work environment and quality of life of the workers. That debate should turn into concrete actions. The academic field should help by doing research that provides information that sustains concrete interventions. The employers should consider food at work as an investment that will be beneficial for the company. The workers should understand that a culture of self-care and risk prevention, linked to a

good diet, is an element of learning for their work tasks, and must be discussed when negotiating their labour conditions. The Government must also help so that the interventions that promote a healthier nutrition and the monitoring for compliance with labour regulations acquire an operational coherence in the development of public policies associated to good nutrition in the workplace.

For the preparation of this publication, at a first stage, consultant Gema Zúñiga and her research team were responsible for collecting data, interviewing key players, conducting surveys to the workers, and producing a first report. At a final stage, consultant Eduardo Atalah reviewed the collected information and prepared the final report. Other professionals who also contributed with their expertise were: Manal Azzi (Officer of the Safe Work Programme at ILO's Geneva headquarters), Carmen Bueno (Specialist in Occupational Safety and Health from ILO's office for the Southern Cone) and Juan Jacobo Velasco (Officer of Labour Information from ILO's office for the Southern Cone). In addition to the already mentioned companies that donated to the project, this publication received the valuable collaboration of representatives from the unions of workers and employers, Government institutions and the academic world.

This publication was conceived as a practical and theoretical contribution that provides some evidence of the situation of food at work in Chile, by identifying vulnerable structures and groups, and by offering recommendations to all the stakeholders, who ultimately must develop an active role in order to improve the quality of food received by the Chilean workers.

GUILLERMO MIRANDA

Director of the ILO' Subregional office for the Southern Cone of Latin America

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summary

Having access to a suitable diet at the workplace should be a right, though this is not always observed. Nevertheless, the problem is not only the access to that food, but also the nutritional quality of the food, a most important factor in the health conditions of the workers.

The present study analyzes the practices of food at work in Chile, through a review of the bibliography and the existing legal framework, interviews with key informants (representatives of the Government, employers, workers and academics), and a structured survey applied to 995 workers from Chile's different regions.

It is important to mention that the current legislative framework refers only to the hygienic conditions of the physical space and the time allowed to have lunch. The information available at national level on the quality of food at work is very limited, but several studies demonstrate that obesity and chronic diseases associated to it have a high prevalence in the workers. There are major shortcomings in the way in which Chilean workers obtain their food: 39% do not receive any food, 22% do not have a place to eat, the place where they eat is not clean enough, the time to have lunch is insufficient, or the quality of the food is not optimal. 30% of the workers do not have lunch regularly, which generates physical and psychological annoyances (fatigue, headache, lack of concentration, irritability, etc.), and, probably, the labour productivity is impacted. 17% of the workers under 30 years of age already present/ display some chronic pathology associated to poor nutrition; such figure doubles in those aged 40. Most of the workers wish to have the conditions and the time necessary to receive healthy food during their working hours.

At least three nationwide studies demonstrate that it is possible to improve the nourishing conducts and some parameters of health in the workers, with an intervention made during the working hours. In addition, representatives of companies, workers, the State and academic groups admit that the subject of food at work is fundamental for the national policies aimed at reducing poor diet, obesity and related diseases. However, the initiatives that have been made in this area are limited, and many employers admit they have not worked more on this area due to lack of knowledge, of time or disinterest, and not because of funding. Undoubtedly, this offers the opportunity for progress on the subject of a healthy diet at work, with information campaigns, technical assistance and, possibly, with some type of incentive given by the State.

It can be concluded that food at work should not be considered as an expense, but as an investment that reduces costs for the worker and the company. Different measures can be implemented to improve the access of the workers to good nutrition and rest during the working day, and those measures usually are cost-effective and generate greater satisfaction at work. It is necessary to define and implement specific interventions with the participation of the different stakeholders (companies, workers, the State, and academic groups), as well as other actions that include society as a whole. It is fundamental that these programmes are part of the labour policies, are carried out steadily over time and evaluated in their implementation and results. It is necessary to have tripartite committees involving the State, the workers and the employers, to strengthen a social dialogue with a focus on work, occupational safety and nutrition.

introduction

The ILO's Safe Work programme encompasses the important functions of labour safety, health and the environment, which must always be considered in a complementary way. A comprehensive safety management system must take into account the protection of health and psycho-social risks, and include promotion activities in the policies of occupational safety and health to keep a healthier workforce.

Nutrition is an important factor in the conditions of health of the workers. The study of the ILO *Food At Work. Workplace solutions for malnutrition, obesity and chronic diseases* analyzed in depth the good practices in the provision of food at work, showing that the programmes that provide a convenient access to healthy food can contribute to prevent obesity, diabetes and cardiovascular diseases. It demonstrates, in addition, that the investments in food are recovered by a reduction of the days on sick-leave, fewer labour accidents and an increase of the productivity.

With the educational programme SOLVE, the ILO also has aimed at integrating the promotion of good health with the policies of safety and health in the workplaces together with actions at company level. The programme features contents for the prevention of psycho-social factors, such as labour stress, economic stress and violence in the workplace, prevention of HIV/AIDS, consumption of alcohol, drugs and smoking, and the promotion of physical exercise, good sleep and healthy eating habits at work. The programme is based on the recognition of the interdependent relationship between psycho-social factors and other health-related conducts. It promotes the design of company policies and intervention programmes that improve the conditions of work and reduce the factors of labour stress from the

perspective of occupational safety and health, by incorporating those factors to the risk assessment, involving both employers and workers through bipartite committees of safety and health.

In recent years, in Chile there has been an important change in the dietary behaviour of the people, with a low consumption of healthy foods (fruits, vegetables, dairy, fish, legumes) and a high consumption of fast and industrialized foods. This has resulted in an excessive intake of fats, salt, sugar, and calories, and high prevalence rates of obesity, hypertension, diabetes and high cholesterol, that are manifest even in young adults.

Chile has clearly identified safety and health as national priorities for work. This country recently ratified the ILO Convention No. 187 (2006) on the promotional framework for safety and health.

Based on this background, Chile was selected for carrying out the present study. The objective is to determine the current practices of food in the places of work at country level, to analyze the knowledge, attitude and behaviour of the workers and other groups involved in this topic, and the interventions that are being made to improve the quality of food and establish healthy lifestyles at work. On the basis of the observed results, we expect to identify opportunities that improve the present practices, and to replicate the successful experiences. The methodology of the study considers quantitative and qualitative tools that include structured surveys, interviews and participation in focus groups, with national key informants, Government representatives, employers and workers. The results will help identify the requirements that will permit to have greater access and better food habits in the workplace.



The main message of that study is that the consumption of good-quality food in a comfortable environment help workers perform at peak levels.

theoretical framework

1. FOOD AT WORK

Several years ago, the ILO highlighted the importance of nutrition in the workplace through the document entitled *Food At Work. Workplace solutions for malnutrition, obesity and chronic diseases* (Wanjek, 2005). The main message of that study is that the consumption of good-quality food in a comfortable environment help workers perform at peak levels. When the workers are relaxed and they have been fed well, they are more productive, benefitting their families and their employers. A suitable nutrition is the basis of productivity, safety, better wages and job stability, interests that must be shared by governments, employers, unions and workers. A healthy nutrition is not only an issue of corporate social responsibility, but a central aspect for productivity, since it reduces absenteeism and diminishes the incidence of diseases like diabetes, hypertension, obesity, etc., which are associated to a poor diet.

Wanjek uses diverse arguments to affirm that the workplace constitutes the ideal location to practice healthy eating habits. In the workplaces people meet in the same environment, at a specific time, day after day, and spend half of their waking period or a third of the hours of the day.

The publication describes several factors to consider when choosing options of food in the labour day: number of workers, budget, availability of space, time for rest, proximity and accessibility, food safety, dietary concerns, education level of employees, gender and special needs. Also, it provides feeding solutions that consider all the mentioned factors, including canteens, vouchers for restaurants, agreements, kitchens, mobile facilities, vending machines and local vendors. The book describes initiatives made in a wide range of companies in several countries, mentioning advantages and problems, and sharing the good practices.

A programme of suitable nutrition must: a) Raise awareness, educate and provide the employees with the information needed to make good choices of foods; b) Help the workers to be proactive in changing their eating patterns; c) Generate the conditions of work that guarantee the promotion of healthy nutrition; and d) Develop labour policies that give workers the right to eat healthily, including the time, availability and access to good options of food.

The programmes of healthy nutrition in the workplace are essential to keep workers healthy and productive, and to reduce the risks of hypertension, high cholesterol, stroke, diabetes and some forms of cancer. Although less frequent today, nutritional deficiencies also affect health, bring about fatigue and diminish productivity.

The workplace is a good platform where to promote healthy habits for the workers and their families (a good diet and physical exercise), and the healthy options must be present not only in the lunch, but also in canteens, vending machines and in business meetings. Employers who promote healthier nutritional habits will have less absenteeism and a higher morale of their workers, a reduction of costs in insurances, greater productivity and greater satisfaction in the workplace, all of which contribute to improving the image of the company and its reputation (Wanjek, 2005).

2. FOOD AT WORK: NEW EVIDENCES

There are numerous recent evidences that support the statements made by Wanjek, regarding the workplace as a fundamental space for influencing the feeding patterns of the workers. Quintiliani et others assessed the effectiveness of the programmes that promoted a healthy nutrition at work, and they give a description of the theoretical frameworks to guide the design of an intervention and its evaluation (Quintiliani, 2010). Different studies show that the dietary interventions in the workplace are usually effective, especially to stimulate a greater consumption of fruits and vegetables, although the tests are less consistent about the long-term effectiveness of the interventions for weight control. The document also gives evidence that changes in the work environment can contribute to increasing the effectiveness of health promotion activities. The authors conclude that the use of the place of work to influence better health and nourishing habits is very promising, and can help reduce the risks of developing chronic diseases.

There has also been an interest to evaluate whether the nutritional interventions in the workplace can improve the productivity and profits of the companies. Through a systematic review of the literature, 2,358 publications were identified, of which 30 met the quality criteria defined for the review: design of the study, good definition of the interventions, analysis of the environmental variables, and description of the results (Jensen, 2011). Several of the studies suggest these interventions have a positive impact on the knowledge of the employees about food and nutrition, food intake, health conditions, as well as on the profits of the company, mainly by a reduction of absenteeism. The study concludes that interventions with well-defined and effectively implemented goals can improve work productivity by 1% or 2%. In large companies, earnings associated to a greater productivity would offset the costs generated by the interventions. The conclusions are subject to some degree of uncertainty, due to the relatively limited amount of studies made with a rigorous methodology.

Another recent study analyzed the financial yield of the programmes that promote a good health in the places of work, programmes orientated towards improving nutrition and/or increasing physical activity (van Dongen, 2011). 18 studies were evaluated, of which only four were controlled clinical tests, which deliver better quality data; the other 14 featured nonrandom samples or other methodology. The studied economic indicators were the net benefits, cost-benefit and the rate of return of the investment. There were important differences in the results, according to the type of study. The health promotion programmes aimed at improving the nutrition and/or increasing the physical activity in the workplaces generate financial savings in terms of reduction of absenteeism, medical costs or both, according to the nonrandom studies, but not according to the studies with a more rigorous design, which showed a negative return. Since these programmes can generate additional possible benefits, not always under control, the conclusions on their general yield are complex.

A qualitative study analyzed, through in-depth interviews, the perceptions and opinions of the personnel in two institutions of the public sector in England about the barriers and opportunities for the delivery, promotion and consumption of healthy food (Pridgeon, 2012). The main subjects which were identified as key to obtain a healthy nutrition at work were: labour structures; cost, choice and availability of food; individual responsibility versus institutional responsibility; advertising and commercialization of foods. The interviewees perceived that there was a limited availability of healthy choices, and that the food caterers execute their service as a business and are not very concerned about promoting health. The limitations of time and tight schedules imposed on the staff resulted in some workers not being able to eat lunch.

The American Cancer Society through its HealthLinks programme promotes health at work, tackling physical inactivity, unhealthy nutrition and smoking. Laing et others analyzed the level of implementation of this programme at 23 workplaces in a rural area of low income in the United States, and gave recommendations on the best practices for reaching the goals sought after (Laing, 2012). After six months of implementation, better practices were observed in physical activity, in the health policies of the companies, and in the communication to the workers about relevant health topics. Additionally, the employers gave a positive evaluation to the initiative, its relevance and future usefulness. The study concludes that when some resources and support for health promotion are offered to small companies which pay low wages, modifiable risky conducts linked to chronic diseases can be reduced.

A systematic review of European studies on interventions that promote a healthy diet evaluated the levels of evidence, effectiveness and quality of the interventions (Maes, 2011). In the last 20 years, 17 studies were identified with a focus on the promotion of a healthy diet, through educational activities, strategies for environmental change, or a combination of both. None of the interventions were rated as "high" quality, and seven of them were classed as "moderate", considering the quality of the design of the study and the degree of compliance of the proposed activities. Thirteen studies focused on nutrition and physical activity (nine of them through education, and four with multiple components), of which ten were rated as "low", and three as "moderate" quality. The results show moderate evidence on changes

in dietary behaviour. The authors conclude that there is limited to moderate evidence of the positive effects on feeding from the interventions implemented in the workplace. The effects can be enhanced if a greater support for the established standards of quality is obtained, which clearly reflects that the quality of the interventions should be improved.

Similar conclusions were drawn in a study by the WHO: *Interventions on diet and physical activity: what works*, 2009. 38 interventions in the workplace were analyzed, most of them in North America, and the rest in Europe. In relation to the quality of the interventions, nine of them were rated as low quality, 25 as moderate, and 13 as high. The interventions were mainly of multiple components, including environmental changes, changes in the food services, information campaigns, programmes of physical activity, and adoption of healthy policies that considered:

- a) providing healthy foods and drinks in the workplace (cafeterias, canteens or vending machines)
- b) providing a space to do physical exercise or encouraging the use of stairs
- c) participation of the workers in the planning and execution of the programmes
- d) involving the family in the interventions, through self-learning programmes, newsletters, festivals, etc.
- e) providing strategies for changing individual behaviour and self-control.

The results demonstrated that 19 interventions brought about positive changes in the areas of knowledge, attitudes and/or self-efficacy, and 25 positive changes in behaviour.

3. ALTERNATIVES FOR FOOD AT WORK

At the international level, there are several alternatives for food at work, which are described below.

Mess rooms/Canteens

A mess room is a reflection of a well-operated company, where the workers can receive decent food in a pleasant atmosphere in which they share time with their fellow workers. It allows the employees to rest, feed themselves, relieve stress and escape monotony or occupational hazards, even though it is only for 30 minutes. Canteens are very suitable for remote places (mines, factories), where options of local food do not exist. Pleasant mess rooms help to attract and retain the employees. The company can establish the price, and control the quality and safety of foods.

Limitations. Often, the investment and the costs of maintenance are high; require dedication and ample physical space that is not always available. Special attention must be paid to food safety: delivery and storage, disposal of waste, cooking, cleaning and maintenance. One case of food poisoning produces a very unfavourable opinion among the workers. A professional company in food services can handle these risks suitably.

Systems of vouchers or tickets for food

This system improves the purchasing power of the worker when selecting his food. It is a good option for urban companies, with little available space or canteens exceeded in their capacity, as well as for companies with workers who move or work at long distances. It allows small companies that cannot maintain a dining room to offer the benefit of food to their employees. It is an inexpensive alternative, because of the savings in the construction of the dining room, equipment and kitchen personnel.

Weaknesses. There must be a suitable variety of restaurants near the company, so that the voucher or card for food can be used. The employers cannot control the quality of the food, as they would do it if they had a dining room available. The employers should give the employees sufficient time to leave the workplace and eat; usually, a 30-minute break is not long enough.

System of catering or kitchenettes

A kitchenette is a small kitchen, featuring an area where the employees can keep, cook or reheat the food they have brought from their homes. Appliances which are usually found there are: a small refrigerator, a microwave oven and a small oven. They are cheaper than mess rooms or the system of vouchers, require less space than a dining room and are easier to clean and maintain. They can be improved with a small investment in electrical appliances and some form of entertainment, like a television, radio or games. They work well in the informal sector.

Weaknesses. The variety of food offered is usually more boring than the one available in an internal canteen or the system of vouchers. If there is no a suitable maintenance, there may be insects and rodents, and there is risk of bacterial infections. The companies with a large labour force that offer kitchenettes without any attraction can be perceived as bad employers.

Snacks, food carts and local vendors. It is a low-cost idea for supplying food

The employers can ask the operators or owners of the carts and food stores to serve healthier food, by using financial incentives or with the commitment to become loyal customers to those suppliers. They can support local suppliers with the purpose of improving the quality of foods and provide them with infrastructure to make foods safer: ice, refrigerators, carts, stainless steel stalls, pure water, etc. Working with a local vendor strengthens ties with the community and contributes to the local economy. A healthy practice is to have fruit available for free in the workplace; another one is to have vending machines displaying healthy products.

Weaknesses. Often, there is no place where to eat the food comfortably. Although the food is healthy and nutritious, resting time might not be long enough. If the food that is sold on the street is not handled safely, it is a potential source of food-borne diseases. People who work in constructions have no mess rooms or vouchers for food, and usually buy their foods on the street, where the health and nutritional conditions may be questionable.

Bonus added to the remuneration

The employers give the worker an amount of money by concept of lunch, and that bonus is added to his monthly remuneration. Such alternative has very good acceptability by the workers, because it allows them to have more money for their necessities.

Weaknesses. The system has not been assessed properly, but some data demonstrate that this alternative is having fewer impacts on obtaining a suitable nutrition, since resources are often used for other purposes, and the worker does not always have lunch.

In any of these alternatives, it is desirable to receive a financial contribution from the employer, and possibly from the State, to achieve a better result. Some countries have implemented a system of tax discounts or exemptions, which stimulates the companies to provide the benefit of food to their staff, promoting social equity among the workers, increasing freedom of choice, supporting a healthy competition among suppliers and boosting the economy.

4. NUTRITION AND HEALTH CONDITIONS OF THE CHILEAN ADULT POPULATION

Chile is not an exception to a reality faced by most countries, as there is a high and increasing prevalence of obesity and chronic diseases related to nutrition at all stages of life. A study commissioned by the Chilean Ministry of Health [MINSAL] showed that obesity represents the second cause of years of life lost by either death or premature disability, and the sixth cause of death at national level (Bedregal et others, 2008).

The main findings of the Encuesta Nacional de Salud [National Survey of Health], related to diseases associated to nutrition are summarized in Table 1 (MINSAL, 2010). It is noteworthy to see a high prevalence of all pathologies, higher to what is observed in most of the countries in that region of the world. An analysis based on people's age shows a significant increase of the prevalences in those aged over 45, although some adolescents and young adults already present some diseases. It is also worrying to see large inequities in relation to education, with a prevalence up to three times higher in people with primary education compared to those who have received higher education.

Several factors can explain the current nutritional situation of the Chilean population, mainly dramatic changes in demographics, socioeconomics, diet and levels of physical activity over the last 20-30 years. Chilean families are smaller, poverty has been reduced, and purchasing power has increased, particularly for industrialized foods with high energy density. Nevertheless, in the poorer families, income is still insufficient to achieve a healthy diet that contains dairy products, fruits, vegetables, fish and whole grains, as the Chilean Ministry of Health recommends.

TABLE 1
Prevalence of some chronic diseases in the Chilean adult population, by gender,
2010 National Survey of Health

Diagnosis/Risk behaviour	Women %	Men %	Total %
Obesity	30.7	19.2	25.1
High blood pressure	25.3	28.7	26.9
Hypercholesterolemia	38.1	39.0	38.5
High/moderate cardiovascular risk	37.3	56.4	45.3
Diabetes	10.4	8.4	9.4
Current smoker	37.1	44.2	40.6
Alcohol consumption in last week	24.8	48.0	36.1

Source: Ministry of Health, National Survey of Health, 2010

An indirect way of knowing the consumption of food is through FAO's food balance sheets, which estimate the apparent average consumption of foods and nutrients per capita, at national level. The latest available data (2007) showed an average consumption of 400 grams of grains per day (bread, rice, pasta, cookies, etc.) and of 112 grams of sugar per day, an equivalent to 22 teaspoons. Both products provide nearly 1,600 Kcal/day, an important fraction of the daily energy needs of an adult who has a slight physical activity. According to these data, the daily consumption of energy is around 3,000 Kcal/day, far above the needs of a predominantly sedentary population. Moreover, in the last 18 years, an increase of 21% and 44% in the apparent consumption of energy and fats respectively is observed, which implies a further deterioration in the quality of nutrition. A recent report by ODEPA made in 2012 suggests that the consumption of sugar would have increased to 125 g/day; of meats (beef, pork, chicken), to 232 g/day; but the consumption of legumes would have decreased to just 7 g/day.

The 2007 survey on quality of life by the Ministry of Health showed enormous differences between Chileans' actual daily diet and the recommendations for a healthy nutrition, both in school children and adults (Table 2). Not more than 30% of the population meet some of the dietary guidelines of the Ministry of Health, which is also revealed by the fact that more than 90% of the population require changes in their nutrition, when applying an Index of Healthy Food (Pinheiro, 2005).

TABLE 2
Percentage of the population that meets some of the dietary guidelines of the Ministry of Health

Consume:	School children %	Adults %
Fruits, at least twice a day	29	20
Vegetables, at least once a day	31	31
Legumes, at least once a day	14	10
Fish, twice or more times a week	10	36
Dairy, two or more portions a day	27	11

Source: Ministry of Health, Survey on Quality of Life, 2007

5. NUTRITION AND RISK FACTORS OF CHRONIC DISEASES IN CHILEAN WORKERS

The Riesgo Persona programme by the Mutua de Seguridad de la Cámara Chilena de la Construcción offered a free medical check-up to all of its employees. 1,380 men and 845 women participated in the study, with an average age of 49 and 43 years, respectively (Fagalde, 2005). The findings were these: 16.3% of obesity, 28.5% of high blood pressure, 57.2% of hypercholesterolemia, 45.3% of smoking, and 82.5% of sedentary lifestyle. On average, each worker had 2.4 factors of risk, which was significantly higher in men, people with lower educational level and adults aged over 40.

Another study analyzed the lifestyles and nutritional status in 1,745 workers of 10 public and private companies in Chile's Metropolitan Region and Fifth Region (Ratner, 2008). The findings showed a high consumption of refined sugars and fried food, and a low consumption of fish, legumes, fruits and vegetables, without major differences by age or gender. High prevalence rates of obesity, sedentary lifestyle, smoking, high blood pressure and high cholesterol levels were detected. Both obesity and most of its related diseases were most prevalent in the men, people with a lower educational level and over 40 years. Aspects like the economic sector of work, the income or the type of work of the studied people were not considered in the analysis. Besides, an analysis between the people's self-awareness of their nutritional status in relation to the real diagnosis showed that most of the obese ones do not consider themselves to be so, which limits the possibility of responding adequately to any possible intervention.

A study by Time Research consultants, done with home interviews, analyzed job satisfaction in a random sample of 400 workers, and it concluded that food at work was the third worst evaluated aspect, behind deficiencies in their recreation spaces and their remuneration. The main reasons for not being happy with nutrition were: its bad quality (36%), short time to feed themselves (23%), not receiving this benefit (21%), or multiple other reasons (20%). The lower their socioeconomic status, the smaller was the percentage of people who received the benefit of food. Nine out of ten workers considered that a suitable nutrition has high influence on their work performance, concentration capacity, health, physical capacity and labour skill.

Ruiz et others, 2010, studied the link between the system of shifts and food, in a small sample of workers of the health area (31 with rotating shifts involving day and night, and 16 with day shifts), and did not find any differences in the caloric intake of people who worked during the day or the night.

Promondo and Isapre Consalud recently made a diagnosis on how the companies approach the subject of Occupational Health, by interviewing people in charge of Human Resources at 188 Chilean companies (large, medium and small) which had some employees receiving healthcare from Isapre Consalud (Promondo, 2012). 70% of the companies consider that the initiatives of occupational health

are important, but actually only 40% of them execute them. Although two thirds of the companies consider that the preventive health screenings and information campaigns to prevent smoking, drinking, and drug taking are very important, not more than a third implements them.

The most implemented initiatives are linked to the conditions of work: promotion of team work (66%); labour loads compatible with work schedule (56%); flexible working hours (53%); and working days/hours compatible with maternity (53%). The activities which are least implemented are those involving prevention of diseases and adoption of better habits: 30% have periodic health preventive screenings; 25% deliver fresh fruit, and 31% develop information campaigns so that the workers are aware about the damages generated by the consumption of tobacco, alcohol and/or drugs.

Analyzed by size of enterprise, a half of the large companies declare that they develop activities to promote good health, a figure that diminishes to 42% and 35% in the medium and small companies, respectively. However, the small companies surpass the large ones when giving recognition to the work done by their employees and protecting their labour schedules.

There is a high willingness of the companies to move forward in the matter of occupational health, but this is not embodied in an organizational policy. Although 62% of the companies claimed to have performed some promotional action of occupational health in the last year, only a third of them have an explicit policy in this regard. The actions are more attached to specific activities than to a strategy in the long term. Analyzed by company size, to a greater extent, the large companies have a policy in this matter.

The companies that did not make any promotion initiatives for the health of their workers in the last year, noted as reasons: lack of initiative (40.4%), lack of time (21.3%) and lack of information (14.9%). It is surprising to find that only 12.8% indicated it was a matter of costs. It is probable, then, that with more information and creative ideas on how to integrate this type of activities in their daily routine, the companies feel more able to do so.

In the system of vouchers or tickets exchangeable for lunch at participating restaurants, the choice on what to eat by the worker depends on the assigned amount of money, his preferences and habits, and what the place has to offer him. In order to improve the offer of food, the programme called "Alimentación y Equilibrio, un programa orientado a su salud y bienestar" was developed and implemented by EDENRED company and its "tickets restaurant" service. This programme seeks to readjust the offer of food at the participating places, with the intention of increasing the availability of dishes which are healthier and with a higher nutritional value. These dishes are identified by a special logo, to inform, motivate and persuade the consumers to take greater responsibility on the quality of their food. However, the higher cost of these dishes could make them less affordable to lower-income workers.

After four years of operation, a study was done on the employees of partner companies so as to assess the people's knowledge about the programme, about the venues that have implemented it, and the possible impact on their food habits and nutritional status (Caichac, 2012). In a small sample of 80 beneficiaries who were tracked for a year, a greater knowledge on the characteristics of the programme was observed. Also, an increase in the consumption of food at the participating stores was shown, although no information on what is consumed at each one of them is available; however, both healthy dishes (identified as "Gustino") and food with a lower nutritional value are available there. Besides, there was a slight improvement in the compliance with the dietary guidelines of the Ministry of Health, regarding the consumption of fruits and vegetables. One conclusion is that it would be good to strengthen the programme with educational campaigns to improve food habits, increase physical activity and reduce smoking.

The only nationwide study that has estimated the costs associated to the obesity of the workers is the one done by Zárate et others (2009), at a mining company. This study demonstrates that whenever there is a greater degree of obesity, there is an increase in absenteeism and healthcare costs of the workers. Such costs were estimated on the basis of healthcare claims covered by FONASA [Chile's public health system], and in the case of medicines, these were valued according to the actual cost of them, based on their bid price, considering the value of the USA dollar. This study probably underestimates the costs, when not including the expenses in other healthcare systems, such as Chilean ISAPRES, or the costs associated to a hospitalization, although it confirms, at the national level, the relationship between obesity and related diseases to a higher cost in health, already observed in other countries.

Another nationwide study evaluated a one-year long intervention to improve the quality of food at work at a metallurgical company (Leighton et others, 2009). The intervention consisted of a buffet-type menu with an emphasis on salads, olive oil and fruits, as well as providing information and counseling to the workers. The study shows that a relatively simple intervention can improve both the nutrition of the workers and the parameters of cardiovascular health, although it did not measure productivity or any other labour indicator.

Finally, the National Survey on Employment, Work, Health and Quality of Life of the Workers in Chile (Instituto de Seguridad Laboral, 2012) included three questions relating to food. 80% of the surveyed workers said that they had breakfast and were given time to eat lunch, and 70% stated they had a dedicated place to eat lunch. It was observed that if the pay was lower, there were fewer chances of having some time allocated for lunch or a place where to eat it, with a weak correlation, though statistically significant.

According to the studies described previously, it is possible to summarize the following:

- There is only one nationwide study that assesses the frequency of consumption of some critical foods in the labour-active population, showing unhealthy feeding patterns (Ratner, 2008). It

- would be of interest to complement this information with research on global consumption during lunch or the rest of the day
- Various studies in the labour-active population demonstrate that obesity and its related diseases are a major issue in Chile, present even in people under 30, with an increasing prevalence according to age.
 - There are a relevant number of workers who do not get the meal benefit, who do not have a suitable place to eat lunch, or who consider that the food they receive is bad in quality, and this situation is even worse for the workers with a lower income.
 - Food at work is perceived as an important element by the workers because of its effect on health, because it reduces tiredness in the working hours, and improves the work environment and the relationship with the company.
 - An important number of obese workers do not admit they are overweight, which makes them more reluctant to participate actively in a programme to promote better dietary conducts and healthier lifestyles.
 - Obesity generates higher costs because of direct expenses on healthcare, absenteeism and derived diseases. The impact of obesity on the productivity of the companies has not been assessed in Chile.
 - At least two nationwide studies show that it is possible to improve feeding conducts and some parameters of health in the workers, by means of an intervention at the workplace.
 - The subject of food at work is crucial for the national policies aimed at reducing the problem of poor nutrition, obesity and its related diseases.

6. NATIONAL LEGISLATION ON FOOD AT WORK

The Chilean legislation contains only some general provisions on nutrition, both in the Labour Code and in the Health Code. The Labour Code and its complementary laws regulate the work relations between employers and workers, with the exception of those who work for the State, the National Congress and the Judiciary. That legal norm establishes that the work contract must indicate if additional benefits exist, including food. It specifies at least 30 minutes for lunch, and the conditions that must be met regarding food at temporary workplaces. A summary of the articles of this legal body with norms relative to the feeding of the workers can be found in Appendix 1.

The Health Code governs issues related to the promotion, protection and recovery of health in Chile's population. Its different Articles define the conditions that must be met by foods fit for human consumption, and the mechanisms to be used in order to monitor their production, distribution and sale. Appendix 2 shows a summary of the main Articles related to food which are contained in this legal body.

Finally, Supreme Decree N° 594 from 1999 (regulation that complements Law 17,644) establishes the basic health and environmental conditions that any workplace must satisfy, without prejudice to

the specific regulation that is dictated for those tasks requiring special conditions. Among other topics, it describes the requirements for the water supply system, the characteristics that mess rooms must have, the availability of refrigeration devices, heaters, dishwashers and electric power systems, and the respective approved health resolution (Appendix 3). With regards to the mess rooms, it states that *“they must be completely isolated from the areas of work and from any source of environmental pollution; must be solely to eat, and can be used to hold meetings and recreational activities, as well. The employer will have to adopt the measures necessary to maintain them in suitably hygienic conditions. In the case that the workers must take their food at the beginning of the work schedule, the mess room must feature a means of refrigeration, a heater, a dishwasher and electric power system.”*

It can be concluded that the existing legislation regarding food at work is restricted to two aspects: having a comfortable and clean place where to eat, and having a minimum time to do so. The employers are not obliged to provide their workers with food, and there are no considerations of relevant concepts like a healthy diet. There is only the obligation to provide food when the job or workplace is in a remote location with respect to the workers' residence, as is often the case in mining, construction and seasonal work.

7. EXPERIENCES IN LATIN AMERICA ON FOOD AT WORK

There are several examples of how some countries, through their governments and institutions, have addressed the subject of nutrition for the workers, by establishing regulations and incentives on this matter. An interesting example is Brazil, that in 1976 approved Law 6,321 on the “Programme of Feeding to Workers” (PAT), which today favours more than 14 million workers in 150,000 companies (Mazzon, 2008; Almeida, 2006). This initiative originated in a joint action by the Brazilian Ministry of Labour and the National Programme of Food and Nutrition (PRONAN), incorporating efforts from several ministries.

Its objective is to benefit the workers with a healthy diet, mainly in the segment of income below 5 minimum wages. It uses different modalities of intervention that must be chosen in a process of dialogue between employers and employees, such as Food Baskets, Food by Agreement, Kitchen Management, Transported Food or Own Service. It considers tax incentives, by reducing the Tax on Income twice as much with respect to the value spent on feeding. In 2007, it generated more than 335,000 new jobs due to the expansion in the network of restaurants, and some studies suggest the productivity would have increased because of a reduction in labour accidents, less absenteeism and better mood in the workers (Mazzon, 2008). It is also estimated that there are positive effects in terms of tax revenue, since the “loss” by reduction of taxes is totally recovered by the revenue coming from the new food-supplying companies.

It is a Government programme of voluntary nature, executed by the private sector, that facilitates the relationship between capital and work, and that does not depend on large governmental structures

to operate. It considers a logic of participation of the State in the recognition of the importance of food and encourages companies to achieve a healthy diet. Currently, there is a Tripartite Committee (government, companies and workers) in the structure of the Ministry of Labour and Employment to monitor the development of the programme, propose measures for its improvement and facilitate social control.

Based on this initiative, similar proposals have been generated in other countries in the region. Among them, it is worth mentioning the Law of Food Aid to the Workers (LAAT) in Mexico, passed in 2011; the Law of feeding to the workers of Venezuela; the Programme of Nutrition for the Workers of Panama, passed in 2003; and the Law of food provision for the benefit of the workers in Peru. In all the cases previously mentioned, the governments create a favourable legal and tax frame as a way to stimulate companies to provide food for their workers. It is stated that the food benefit given is not considered as wage for the purpose of the social charges of the workers. Neither is it considered for the purposes of payments of workers' income taxes, and it is considered as accepted and deductible expenses for the companies. In addition, the methods or modalities by which the food aid can be delivered are clearly defined, leaving out or restricting the delivery in cash as much as possible.



The study evaluates the needs of the country in this area, by means of the sampling of a number of companies in diverse economic sectors.

objectives of the study

1. OBJECTIVE OF DEVELOPMENT (OVERALL IMPACT OF THE PROJECT)

To contribute to encourage healthy styles of life, improve nutrition and reduce the incidence of non-communicable chronic diseases related to the nutrition of workers in Chile. Specifically, this study purports:

- To increase the number of companies that implement a suitable policy and good practices in the programmes of food at work.
- To encourage companies to adopt suitable programmes of nutrition according to their needs.

2. IMMEDIATE OBJECTIVES

To assess the needs of the companies as to food programmes, compare the different existing systems and propose recommendations. More specifically, it is expected:

- To evaluate the knowledge, attitudes and behaviour of the employers and the workers as regards the food programmes.
- To analyze the possible effects of a food programme in the companies where one programme exists, and the needs when such programme is non-existent.
- To evaluate the national policy in Chile regarding the promotion of health and nutrition in the workplace.

The study evaluates the needs of the country in this area, by means of the sampling of a number of companies in diverse economic sectors. It has a national approach to identify the opportunities and the challenges faced by the companies in order to adopt suitable programmes of nutrition at work. On the basis of the knowledge acquired in previous studies by the ILO, stands out the need to offer not only food options, but also to promote and evaluate programmes of healthy food and recommendations for their implementation.

methodology of the study

The study used a mixed methodology. A portion of the information is of qualitative type and was obtained through semi-structured interviews with key stakeholders. Another part is quantitative and it was collected through a structured survey applied to a representative sample of workers.

1. INTERVIEWS

Semi-structured interviews were conducted to address the topic from the experience and stories of key stakeholders, in the Government, academia, unions and employers. The guideline of the interview was not rigid, and it was developed based on the goals of the study and the possibility of deepening some subjects that were considered as relevant.

The interviews were conducted in groups and individuals, depending on the disposition and help of the summoned stakeholders. In the case of the group interviews, the participants shared common characteristics: they belonged in the same company section, or were union leaders in the same economic sector, etc. The planning was determined by the time availability of the interviewees, ensuring that there was a warm and tranquil environment in all the sessions.

2. SURVEYS

The survey applied to the workers was elaborated from variables described in the literature, previous research and consultations with experts. A questionnaire was built, and was reviewed by expert validators who had a vast methodological experience in the topic (two academics from Universidad de Chile's INTA). The variable considered in this study was *Practices of food at work* (PAT), which is defined as: "The set of conditions in the contract, the environment and the personal attitudes that determine whether the food received at work is healthy". Such variable takes into consideration five aspects: legal, economic, accessibility/temporality/satisfaction, socio-cultural and food habits in the working week. The conceptual and operational definition of each one of these dimensions is summarized in Table 3.

TABLE 3
Dimensions studied to evaluate the Practices of Food at Work

Dimension	Conceptual definition	Operational definition
Legal	It is defined in terms of the Labour Code of the Chilean legislation, Health Code Law 16,744, and Supreme Decree 594	<ul style="list-style-type: none"> • Place where to eat • Time to eat food • Cleanliness of place
Economic	Way in which food benefit is given at work: canteen, cash bonus, agreement with restaurant, voucher for restaurant, allowance	<ul style="list-style-type: none"> • Supplying food at work • Number of meals received • Amount by concept of food
Accessibility/ Temporality/ Satisfaction	Distance, time and degree of satisfaction to reach place of feeding, and time allocated to eat	<ul style="list-style-type: none"> • Distance • Time • Satisfaction regarding the transfer • Satisfaction by time given to eat food
Socio-cultural	Perceptions associated to receiving food at work, to the benefit of getting healthy food, and social aspects linked to food at work	<ul style="list-style-type: none"> • Use of the food benefit • Perception regarding healthy nutrition • Perception of the most suitable system of food
Food habits	Habits (constant actions) associated to food during the working week	<ul style="list-style-type: none"> • Daily food habits, especially during the working week

Source: Own elaboration

From what is described in the literature and in the national experience, the following alternatives were considered to receive the food benefit:

- **Canteen:** the workers receive their food at a facility within their workplace or close to this. Generally, this is done through a company that provides food services, offering food that is varied and nutritious. This modality often occurs in large companies which have an important number of workers. The costs of the menu can be shared or paid for exclusively by the employer.
- **Bonus added to the remuneration:** the employer grants “a bonus” or an amount of money to the worker for lunch, usually accompanied by a transportation allowance. A daily cost is estimated and it is added to the monthly remuneration. There is no defined maximum or minimum.
- **Voucher for a restaurant:** the worker is given a ticket which is equivalent to an amount of money, and it can be exchanged for foods in places that have an agreement with the company that manages the voucher.
- **Agreement with a restaurant:** the company signs an agreement with a restaurant near the workplace, and the workers can eat there for a cost that has been agreed between the restaurant and the employer, in the form of a “discount” or a “special price”. Another modality is that the restaurant takes prepared food to the workplaces.
- **Allowance:** an amount of money is given to the worker so that he can buy his food, and, later, he can report the expense by submitting the corresponding bill/receipt.

A pilot survey was applied to workers of an electricity company, to evaluate the understanding of the instructions, and the necessary corrections were made before applying the definitive survey. Appendix 3 shows the final format of the applied survey.

3. POPULATION OF WORKERS CONSIDERED

The Chilean Ministry of Economy classifies companies according to their volume of annual sales or by the number of their workers (Table 4).

TABLE 4
Classification of the Companies in Chile

Type of Company	Number of Workers	Annual sales in Unidades de Fomento	Annual Sales in US\$
Microcompany	1 to 9	< 2,400	< 112,000
Small	10 to 49	2,401 to 25,000	112,001 to 1,162,000
Medium	50 to 199	25,001 to 100,000	1,162,001 to 4,648,000
Large	200 and more	>100,000	>4,648,000

Note: For the conversion of Unidades de Fomento (UF) to USA Dollars, the equivalences on 10-March-2012 were considered: 1UF = CLP \$22,472.65; 1 USD = CLP \$483,46
Source: Own elaboration

The classification based on the annual sales is particularly used in economic studies, whereas the number of workers is used when it is necessary to consider informal work and aspects related to the conditions and quality of the job. For the purpose of this study, the universe is constituted by all the workers of both genders with formal contracts, stratified by economic sector and who work at national level.

According to data given by the Instituto Nacional de Estadísticas (INE), by the end of 2010, there was a total population of 7,353,830 workers (formal and informal). To estimate the number of informal workers, the Survey of Employment CASEN 2009 was considered, as it gives data on the distribution of workers by company size (number of workers working here). Based on that data, the following chart was made:

TABLE 5
Distribution of workers, by company size

Type of Company	Number of Workers	Total of Workers at national level	Percentage
Microcompany	1 to 9	2,455,257	44.1
Small	10 to 49	986,588	17.7
Medium	50 to 199	736,653	13.2
Large	200 and more	1,395,846	25.0
Total		5,574,344	100.0

Source: Own elaboration

The total of workers according to the CASEN 2009 survey is 6,469,566. Those workers who declared not knowing the size of their company were deducted from that figure (n=895,222). Source: MIDEPLAN, Social Division, CASEN 2009 Survey.

More than 60% of the working mass is concentrated in micro and medium-sized companies, many of which are informal, constituted by relatives or friends, and managed by their owners. It is estimated that 30.8% (2,267,039) of the universe of workers given by the INE are informal, so the population size to be considered in the present study (formal workers) is of 5,086,791.

The size of the sample was calculated following the following probabilistic method: a) Statistical estimate: percentage of workers satisfied with the food given at their workplace, or any other question with two possible answers; b) Maximum error in the estimation of statistics 3%; c) level of confidence 95%. Under the previous assumptions and considering a loss of 15%, a sample size of 1,227 people is obtained. For reasons of time and resources, the sample was targeted or purposive, and not strictly random.



“When any employer or worker is asked about the subject of food, they react with surprise, as if it were the first time they come to think about that.”

results of the interviews

30 in-depth interviews were made: three to academics, three to governmental actors, three to actors related to occupational safety and health, eight to union representatives, and 13 to people in human resources and/or employers, and the main findings are shown below.

1. ACADEMICS

Description of the food received by the workers

There are multiple ways in which Chilean workers receive food at work, depending on the size of the company and its economic sector. There is no consistent preoccupation about food at work; the State, companies, workers and unions are not very concerned about this topic. The workers would prefer to receive the benefit of food at work in money instead of actual foods. It is estimated that there is an emerging concern from the State about related subjects, like obesity, which can contribute to the promotion of a healthy diet.

“When any employer or worker is asked about the subject of food, they react with surprise, as if it were the first time they come to think about that.” (Academic, Public Health).

Relationship between food and productivity

Food at work is linked with productivity. An inadequate diet has consequences on the body and has an impact on behaviour, performance at work and safety. For example, a drop in the sugar levels can cause physical and/or mental fatigue and, consequently, increase the risks while operating machinery. A suitable nutrition is necessary during the working day in order to have a good performance and work safely.

“There is an inter-city transport company that gives 600 Chilean Pesos [US\$1.20] a day for their drivers to buy lunch. Without time or money, there are drivers who don't eat and have problems with hypoglycemia, they nearly pass out behind the wheel. It is a terrible thing.” (Academic, INTA).

Structural conditions that influence the access to a suitable nutrition

Food and its quality would be related to different structural factors. There are time components, like the schedule for lunch, 30 minutes being insufficient time. Others are related to food availability and the accessibility to it, based on geographical distribution. Consumption of fruits, vegetables and fish is much more complicated for economic activities that are carried out in the mountains or in remote areas. There are factors related to the cost of foods, due to the important price difference between healthy and non-healthy foods, the latter being cheaper and more affordable.

“People in Chile’s north do not have any possibility to eat vegetables or fruits.” (Academic, Public Health)

“A person who has a higher income can choose a lean meat. However, a person with low income will buy anything, whatever they can afford, although it may not be the healthiest food. This is super sad.”

(Academic in Nutrition).

Socio-cultural Aspects of Nutrition

Nutrition occurs in a certain socio-cultural context, which generates cohesion and group identification, as well as differentiation with respect to groups or sub-groups. Nutrition has a specific meaning for less skilled workers, who prefer the abundance of food, traditional dishes and hypercaloric foods. Those workers with a higher social position favour healthy food, more expensive and natural products. The differences by gender are reflected in the consumption: meat means virility for men, whereas fruits and vegetables are related to women, so men who eat fruit and vegetables may be regarded as not very male.

The choice of certain foods is strongly influenced by advertising, especially the one about non-healthy products, making people believe that the consumption of these is a need. There is use of advertising tools to capture specific age and/or social niches, like young people or people with the lowest income, in order to attract them, promoting a social prestige in eating foods that are not healthy.

“Businessmen are a different class that have a different diet.” (Academic in Nutrition)

“At a mining company in the northern city of Iquique, they created a healthy food counter. But they made the great mistake of placing it next to the “normal” food counter. The miners called the healthy food counter “the gay people’s table”. Nobody dared to pick up food from that counter.”

(Academic, INTA).

“People with low income prefer using their money to buy junk food which is advertised by the media, instead of buying healthy food, which is also more expensive. Because of an aspirational desire, to obtain a higher status, they waste their money. If they do not buy junk food, which is popular with children, they feel badly, because they are not giving their kids food that allegedly helps them grow.” (Academic in Nutrition).

Roles and recommendations

For the interviewees, the State must play a more active role and regulate, since the health of the population is involved. For future interventions, clear diagnoses and programmes aimed at specific groups are needed. This mixture of low participation with methodologically unsuitable diagnoses and programmes has caused that the interventions have no greater impact on the problems arising from bad nutrition. The Elige Vivir Sano programme has a very good communicational impact, but it lacks methodological structure, thus expecting good results is not very viable.

The recommendations with respect to suitable practices of food at work, focus on: a) The employers having a more active role, and they must consider nutrition as an investment and not as an expense; b) Food must be regulated by a third party that knows about nutrition; c) The time to eat lunch must be over 30 minutes; d) The State and private interventions must consider perceptions, beliefs and attitudes to achieve a greater impact; and e) Considering the promotion and intervention about healthy food as an investment in good health, for the costs of bad health are ultimately assumed by the State.

"It would be brilliant to generate the foundations that make it possible to provide the workers with healthy food. If Chile becomes aware that the health of the employees and what people eat is everyone's concern, it would be much easier. It is not a problem that only affects the person who gets ill. It is a problem for the individual who is ill, it is a problem for the employer who cannot count on him, and a problem for the State, as it has to pay for the healthcare of that employee." (Academic in Nutrition).

2. REPRESENTATIVES OF THE GOVERNMENT

Description of the food received by the workers

According to the interviewees, from the private sector there have been initiatives to encourage a healthier nutrition in the companies. The ways in which the companies provide food to their workers are diverse: canteens managed by the company or externally; companies that add the benefit to the workers' remuneration; system of vouchers for restaurants; and the companies which do not give food to their employees have facilities where these can eat. Many practices and habits are there for historical and sociocultural reasons, and to modify people's habits requires a prolonged, systematic effort.

There is no regulated method for ensuring food at work. In many cases, the conditions described in Article 594 of Law 16,744, related to the time and place to have food, are not complied with by the employers or by the workers themselves. In some specific sectors, there are major differences in the way in which workers have access to their food. In the large mining companies,

a high intake of calories prevails, whereas in the forestry or the fishing industries, the workers can spend their working day without any food, resulting in negative consequences for their health and labour safety.

“Food is related to the context in which people produce. For instance, the productive context of mining was different 50 years ago, when miners had to use a pickaxe. Today they do not have that standard. In the mining companies, in the morning, they offer you breakfast, with food and hot dogs at free disposal. (...) Many of the problems have to do with the culture in relation to food, but also with how some productive niches are in relation to food.” (Civil servant, ISL).

Sociocultural aspects of nutrition

Chile experienced an important nutritional transition from the undernourishment of the seventies to the obesity of today, partly derived from its economic growth. People with less income went from food insecurity to filling themselves by eating, expressing an attitude of absolute rejection to hunger. Knowing this phenomenon helps to understand behaviours, attitudes and perceptions associated to foods, and to recognize the actions that do not generate acceptance in the people.

“Chile had a very short transition from undernourishment to obesity. People aged 50, 60 or 70 probably experienced shortage of food in their childhood, and when you react to that deficiency, you do not want your offspring to have it, so you protect them. This was very well depicted on a television programme that showed a grandfather who had experienced starvation, and he stated ‘nobody else in my family will starve again.’ It so happens that he had a 2-year-old granddaughter who already had obesity problems.” (Civil servant, MINSAL).

Role, Goals and Intervention

The interviewees admit that the State has not approached the issue of food at work specifically, partly because there have been other priorities, such as obesity in children. At the moment, interventions at different levels are being made in the group of adult workers. The macro interventions, that are being carried out jointly by the Seremis, municipalities and medical centres, consist of information dissemination to the people who are attended to by the public healthcare system. The “Elige Vivir Sano” programme promotes a healthy nutrition and physical exercise, being an initiative of the Government. Additionally, surveys are being conducted, like the National Survey of Health, and the National Survey on Conditions of Employment, Labour, Health and Quality of Life, that are starting to take into account these indicators.

At micro level, as of 2010, the “Programme of Accreditation for Places that promote Health” is being rearranged, with an emphasis on the labour context. The different forms of nutrition that are received by the workers in their workplaces are considered, such as: food given at a canteen, food given

through vouchers, and spaces where to eat food. Accreditation is voluntary, educational support is given to the workers and their relatives, and the focus is on the medium and small-sized companies.

“So that the workplaces are certified as promotional places for health, they must comply with a number of aspects, among them is food at work: what type of food is supplied, how it is received, if they encourage the practice of physical exercise, if they make healthy breaks, and a series of aspects related to occupational health and quality of life for the workers.” (Civil servant, MINSAL).

Difficulties

In order to be able to set up and carry out the programmes, the interviewees admit that a direct intervention meets with difficulties, which often counteract the actions performed. Among them are some cultural aspects related to food, both inside and outside the workplace. There are practices that are socially rooted, which complicate the problem, and there is the perception that people have not enough money to afford healthier food.

“I always remember that once, when I was doing a very technical presentation on healthy life, a construction worker stood up and said: ‘Look, doctor, I get up at 5 in the morning, catch a bus that takes two hours to get to my workplace, I start at eight, I work till six in the evening, and then I catch another bus to get home. When do you think I can do physical exercise?’” (Civil servant, ISL).

3. REPRESENTATIVES OF OCCUPATIONAL SAFETY AND HEALTH

Description of the food eaten by the workers

According to the interviewees, the way in which the workers feed themselves is stratified. Whereas in the mining area food abounds, people in the transportation sector feed themselves with anything they find along the way; in construction, the workers take their “pot” with food cooked at their homes; and in the forestry area and salmon farms, people sometimes eat at their posts. In those areas where there are more office jobs, food is provided through a canteen or vouchers for restaurants.

Food practices differ from company to company, and some of these do not have any place where their workers can eat. Large enterprises generally have a food service supplied by a company that specializes in managing canteens, with amenities and a good range of foods. The uses given to some benefits do not always respond to their goals, and the voucher for getting food at a restaurant can be used for purchasing other products. In the opinion of the interviewees, in those companies where the food benefit is added to the remuneration, or a voucher for restaurant is given, the workers have an unhealthy diet because they look for cheaper options or fast food.

"I feel that large companies that have a canteen do comply with the regulations, and that most of the smaller companies include an item called "monthly food" in the workers' pay, so these decide how to get their own food." (Officer from Mutuality).

"I have been to fish farms in lakes and at the sea, and often the workers have to eat in the lake, while the raft rocks. This is wrong because this is supposed to be their break to get some rest from work." (Officer from Mutuality).

Nutrition and Accident Rates

The opinions of the interviewed people, in general, support the argument that food is related to accident rates, particularly in those jobs that require a good fitness condition, and a good diet is absolutely necessary to prevent fatigue or sluggishness.

"Bad nutrition also entails higher accident rates due to tiredness and other effects. I believe that there is a direct relationship between a bad diet and an increase in the accident rate." (Officer from Mutuality).

Current Legislation and Associated Roles

It is considered that it is not adequate and that the State should play a more active role to secure food at work, as it is necessary to regulate and monitor this subject. The norms and/or laws must be updated so as to satisfy Chile's present needs. The interventions should happen at different stages of people's lives, starting with education in schools. Healthcare institutions like Chile's public health provider FONASA, and private health providers, grouped in ISAPRES, should play a more active role in the promotion of good health and suitable nutrition, which will prevent the emergence of non-communicable chronic diseases.

Regarding the role of the mutualities, some people think that they must watch the way in which food is supplied in the workplaces, by giving support or advice to the companies, which would help improve the quality of life at work. Others think that the role of the mutualities is to minimize occupational hazards which are described in the legislation. Assuming other roles that are not under their direct competence would free other actors who must take a more active role.

The interviewees consider that the governmental agencies, mutualities and academia should focus on education, to raise awareness about good nutrition at workplaces, or at schools and universities. They recommend that the students who are being trained in areas related to the management of companies, or occupational safety and health, have courses that address these topics, so that later this information is spread and discussed in the places of work.

"It is the responsibility of the Isapres and Fonasa to keep Chileans healthy. The Government, through its healthy life programme, has made progress in the initiative." (Officer from Mutuality).

“I believe that the role of the State has to do with the regulation of nutrition in general. In Finland, for instance, the State defined the levels of saturated fat and salt that foods must have, and promoted a line of healthy food for all the population. It is necessary to educate the people on the matter.” (Officer from Mutuality).

4. UNION REPRESENTATIVES

Description of food at work

The union representatives interviewed agree that feeding practices depend on both the economic activity as well as the size of the companies. Some activities have a greater control on the feeding at work, as is the case of those dedicated to large-scale mining, finances and large companies. The workers receive food through canteens, with constant nutritional advice and detailed information about foods. However, there is an important number of workers who receive food in very unhealthy conditions, without facilities where to eat, as it happens with companies in the forestry and transportation areas. In agriculture, significant differences exist between the large-sized businesses and the small to medium-sized farmers who have no facilities to eat lunch.

The least protected sectors tend to consume unhealthy food which can be toxic in its elaboration, as in the case of coach-bus drivers who eat whatever they can get, or the workers of fast food businesses who eat this type of food. For those workers who cannot afford to eat a proper lunch, because they lack money, time or a place, a cheap snack becomes a viable, comfortable and tasty alternative. An exception would be agriculture workers who consume fruits and vegetables, although this is not because they are more knowledgeable, but because these foods are readily available to them.

“In stores, where there are no dining places for workers in general, people eat their food in the bathroom or at the counters (...), people leave the premises to eat on the street, because they do not have where to eat.” (Union representative).

“Five or six years ago, a study was made and showed that nearly 60% of the drivers from all of Chile’s transportation sector have diabetes, due to bad food, overweight, eating sandwiches and junk food; because they are not given time: the system does not allow the drivers to eat properly.” (Union representative).

Differences between Permanent Workers and Contractor-Subcontractor Workers

There are substantial differences between permanent workers, who rely on legal dispositions that guarantee their lunch, and contracted and sub-contracted workers who, sometimes, cannot use the company facilities or are given lower-quality places. The action of trade unions has tried to diminish the inequalities, but they have been successful only when there is a stable and strong organization,

otherwise not much is accomplished. The differences in the treatment are deemed as a form of discrimination, an aspect that was covered by the law for subcontractation, but in actual fact it is not being complied with.

“There are levels of dissatisfaction, mainly among the contractor workers. On one side, you have the permanent workers, who get food before anyone else, while the contractors see there is discrimination as to the quality of that service. Obviously, this group of workers does not have the same choices for breakfast, lunch and dinner. There are employers who do not guarantee food for these workers at the site. Therefore, this is a daily battle.” (Union Representative).

Food and productivity

The interviewees have two perceptions in the relationship between nutrition and the productivity of workers. If productivity is considered as efficiency at work, then good nutrition contributes to perform better, but when productivity is conceived as the reaching of a goal, food may be overlooked if the work or task is urgent.

“Production would be far better if we were well-fed.” (Union Representative).

“Sometimes, we don’t even have time to go to the toilet, or to eat something because of the work requirements.” (Union Representative).

Social aspects, advertising and the new poverty

The interviewees indicate that the reduction of poverty has determined a change in diet. People do not go hungry, as they can afford cheap food, which is not very nutritious, though. In this abundance of foods, people prefer what is within their reach and cheaper. Food is an important social component and often loaded with affection, so abundance is related to the feeling of contentment.

The interviewees mention the influence of advertising in a socioeconomic model based on consumption and social prestige. Advertising entices a worker to see a product and feel the need to buy or consume it. People are made to believe they have needs which are diametrically different from the discourses on healthy lifestyles or healthy foods. The discourses that promote a healthy diet cease to make sense when they are faced with the harsh reality, they sound out of context.

“There is a culture of nutrition to stop feeling hungry, because there are poor, hungry people, families that buy lots of bread, lots of pasta as these products stop their hunger, but they feed themselves very badly.” (Union Representative).

“If you take cottage cheese, it is expensive for the common people, and the saltless variety is even more expensive, but it is healthier. Food is also linked to culture, and there is no healthy food culture here.” (Union Representative).

"If you consume this, you will be a successful person." (Union Representative).

Roles associated to food at work

In the issue of food at work, each stakeholder must have an active and determined participation so as to establish good-quality nutrition. The State must play a more active role, of regulatory nature, delivering information at all levels, and carrying out a more effective inspection. The employers' obligation should be to ensure the delivery of good-quality food to their workers, not only because of an ethical obligation, but also because of the benefits that entail the establishment of good practices, resulting in higher productivity, happier workers, and the company undertaking its social responsibility.

Union representatives consider that they themselves have an important role in ensuring food is provided at work. Nutrition should be a right that guarantees service, quality, education and prevention; it should not be a benefit where the guarantees are relegated to the will of the employer. The interviewees admit they are active participants in the subject of nutrition, however, they have advocated for it in terms of remunerations rather than in the quality of the food itself. Similarly, they confess they are in need of more data, so that their interventions are based on valid knowledge about food, and not on economic criteria that eventually perpetuate the inadequate nutrition of the workers.

"The way we see it, nutrition is a fundamental and unwaiverable right which cannot be compensated through any allowance. When some workers suggest they would prefer to receive a bonus instead of food, we find it unacceptable, because it is the company's duty to provide that service with quality. That is why there must be a State that enforces that norm." (Union Representative).

Education and social dialogue

When speaking of quality food, the education strategy is seen as urgent and necessary. Not only the education of the worker is considered, it also has to include his family, and the topic of nutrition must be taught at primary schools, so that children learn about the importance of having a healthy diet. As long as people are educated in this matter, they will be able to prevent diseases, and the State will not be burdened with the consequent expenses on healthcare. Education for all social classes will allow workers to participate in and build their own welfare, being able to suitably implement new practices and food habits, and diminishing their resistance to changes.

"The change starts off with education, but not only to the workers and their children, but also to the employers. The persons who work for a company owner must understand that they are human beings just like their boss, with the same needs, (...) If we are unaware of what good food is, we will never be aware that we must demand it." (Union Representative).

5. EMPLOYERS AND/OR HUMAN RESOURCES MANAGERS

Interviews were conducted with employers and/or staff at the human resources section of different areas: education, commerce, agro-industry, manufacturing, real estate, telecommunications, accommodation, restaurants and business management. Many of the interviewees represented large-sized companies (over 200 staff), whereas a smaller part worked in medium-sized companies, and only one was a small company.

Food delivery

When the benefit of food is delivered through a canteen, with a food-supplying company, the employer covers the total cost or part of this. A second option is a bonus added to the remuneration, and only a few cases have an agreement with a restaurant, or no benefit is given. Most companies give 45 minutes or one hour for their workers to eat lunch. In some cases, night shifts were considered, and the workers here were given food and a break from their functions.

"In the case of the industrial areas, the cost of lunch is shared: the worker pays for 50% of it, and the company assumes the other 50%." (Director, Agro-industry).

"No, they will always prefer the benefit in cash. If we offer the worker a CLP\$35,000 bonus for lunch, he will take it. If we offered him the possibility of receiving lunch and no bonus, he'd feel he is losing something. He will always prefer to have thirty five thousand Pesos in his hand." (Administrator, Real estate).

Styles of feeding

The interviewees claim that men and women show different preferences. Women opt for lighter meals, like salads, fruits and fish, whereas men eat lots of legumes and meat. The men's option is more likely to happen in jobs linked to factories and agro-industry. The youngest workers tend to have an unhealthy diet, and most of the time they eat junk food.

"For lunch, women choose either a vegetarian dish or one with low calories. Men eat more food." (Human Resources representative, Factory).

"The youngest workers do not eat vegetables or fruit. They go the easy way: they buy pâté and they spread it over some bread. That is lunch for them." (Business Management Director).

Food and Labour Safety

There are diverse opinions in connection to this subject. Some representatives see a direct relationship, where fatigue impacts the quality of the work and invites accidents. Other opinions do not see such a direct relationship.

“No, I don’t see any relationship. There might be a relationship between people’s food and diseases, like obesity and high blood pressure. I see all those who have had accidents, see the food and don’t see any relationship. All of them get the same food. We cannot discriminate.” (Human Resources representative, Factory).

“Yes, of course, because fatigue makes the person weaker and he may make a mistake because of that weakness. This is a major issue, especially in adult people.” (Human Resources representative, Retail business).

Role and interventions

According to the interviewees, there is concern about food at work, above all in those companies that have an important number of workers. Food is supplied through canteens, under the guidance of a nutritionist. They usually display information about their foods, and offer a varied and well-balanced choice of dishes. Other companies make use of strategies that install the concept of a healthy diet through the delivery of fruit or by displaying healthy food on a good-health cart. In one case, a company asked for the advice of a nutritionist to assess whether the food that was being given met the energy needs of the people who worked there. Nevertheless, people admit there are not many initiatives on the matter. In some cases, they consider that too much food, with caloric excess, is given to workers.

There are different opinions about the role that a company must play in the nutrition given to its workers. Some consider that having a suitable place is enough, whereas others consider that giving food, and especially good-quality food, is not only a benefit for the worker, but also for the company, because of its impact on the worker’s productivity and satisfaction.

“I feel we have an obligation, mainly towards people with a lower income. The law does not require it, but if us, the employers, become aware of the importance of food in all of its aspects, not only the productive one, but also as a social and motivational tool, then it would be everyone’s concern, and the employers would give good food. The issue of food is not expensive. It is a benefit that you give to the worker, and it has a high yield. I have always thought that if I owned a company, I’d care for good food, good breakfast and good lunch. I am absolutely positive about it.” (Human Resources representative, Retail business).

6 REAL CASES OF GOOD PRACTICES

The statements given by the interviewees allow to identify examples of good practices of feeding, voluntarily implemented in some companies.

Case 1

Told by the corporative head of occupational health and safety from an international company in the area of electricity, with 2,200 workers in Chile, most of them males. Highlights are the involvement of the managements and participation of all the workers

in the subject of nutrition at work, where, through prevention programmes, there have been improvements in some food habits. In 2006, as part of the strategy on people's safety, the corporative management set the goal of achieving zero accidents. To do so, they had to identify all the dangers and to establish control on the risks. They found that overweight and a sedentary lifestyle constituted modifiable factors that generate risks of accidents and absenteeism.

A health diagnosis as part of the annual preventive programme, determined the presence of chronic non-communicable diseases, especially cardiovascular ones. From this information, a preventive programme for cardiovascular risk was generated. It has been going on for six years now, with a focus on modifiable factors, such as physical exercise and a healthy diet. In order to engage the workers and directors of the company, a campaign of education and dissemination was executed whose goal was achieving permanent changes in food patterns. The programme managed to implement gyms where specialized professionals offer weekly classes of physical activity to prevent cardiovascular diseases. Additionally, two nutrition assessments a year were introduced, which are conducted by a nutritionist; and a strategic alliance with a company that manages the canteen was made, in order to give healthy food. Campaigns of education for the workers and their families were implemented. There was a gradual joining to the programme on the side of the families, and today they are active participants in the culture of the company.

A specialized company was hired to run the canteen and provide a quality service, with healthy and highly nutritious foods. The menus include special dietary dishes (for example, without salt), indicating their respective caloric contribution. The menu is developed jointly between the workers and the company, and it tries to meet the nutritional needs as well as the tastes of the workers'. A salad-bar was created, featuring a great variety of pleasing and aesthetically colourful salads, followed by a hot meal that includes products of animal and vegetable origin, and desserts, as well. They are attempting to reduce the consumption of fizzy drinks, by giving natural fruit juices or water. The interviewees consider that this modality is good, since it does not discriminate against vegetarians and allows the people who have some diseases to have a special diet, all of which has generated a high level of satisfaction and control over what they eat.

To diminish the consumption of sweet snacks and coffee, they started to deliver fruit, reaching 400 grams a day, with a declared cost of CLP\$120 for each fruit. Fruit is given for free to each worker at mid-morning, which is very much appreciated, since it is considered that encouraging the consumption of fruits during the day contributes to a healthy diet, avoiding fatigue or reducing the consumption of snacks, usually in the shape of cookies. Initially, these practices generated resistance, but after a while they produced

satisfaction in the workers because of the company's concern about their healthy nutrition. Educational campaigns on health and food are also part of the permanent dissemination of information in the company, where there is social marketing support through posters, leaflets and healthy recipe contests.

Case 2

"Vivir Bien" is a programme that promotes health inside the companies. It was created in 2005, within the framework of corporate social responsibility and as a result of the interest by SODEXO to establish the use of a ticket or voucher for a restaurant that is given to the workers of diverse companies, so that these have a suitable food selection that has a positive impact on health indicators. The main targets of the programme aim at encouraging a healthy lifestyle that allows to prevent and/or to control adults' chronic diseases, and to guarantee a greater well-being at work and at home.

The programme includes three major areas that are assigned to each company according to the priority detected after applying direct surveys to the workers: a) nutrition; b) family; and c) occupational health. At each of these stages, a systematized methodology is applied, but it is adapted to the reality of each company, and it considers three basic aspects: a) assessment; b) training; and c) re-assessment. In addition, there is a maintenance stage that is cross-sectional throughout all the process.

The programme has benefitted more than 237,000 people in 250 companies over seven years of execution, and these are the most relevant results: 60% of the workers are somehow overweight, especially males; 87% do not do any physical exercise; 48% smoke; less than 20% prefer foods recommended by the Ministry of Health for the Chilean population; there is a low intake of fruits, vegetables, non-fat dairy products, fish and legumes; and a high intake of fats and sugars.

In a study to evaluate the effect of six months of intervention of the programme, the results were these:

- Decrease in overweight of five percentage points
- A significant improvement in the selection of foods
- 86% improved their perception of the company's concern about their collaborators
- 88% perceived an improvement of the working environment as a result of the application of the programme

Even though it was not assessed, it is estimated that the higher motivation obtained in the collaborators can improve the yield, productivity and competitiveness of the companies.

Some of the lessons learned in this intervention were:

- The company is an excellent space where to promote healthy styles of life.
- The systematic programmes that consider the specific barriers of each company and that rely on highly motivated and trained staff are successful.
- Coherence is fundamental.
- The degree of participation depends on the support of the managers or heads.
- The workers are genuinely interested in participating in initiatives that promote healthier lifestyles.

Case 3

Another interesting case is a North American telecommunications company which has been operating in Chile for three years, and has branches in several other countries in South America. The personnel manager claims they are really interested in the subject and agrees that food at work is a very sensitive issue, which is the concern of both managers and workers. This company has more than 800 workers in different regions of Chile, with an average age of 34 years. The benefit of food is delivered through a voucher for restaurant, and is economically adjusted to the urban sector where the workers perform their activities.

The money for food is CLP\$3,500, with which the workers can have access to foods in their cafeterias and healthy food carts, which is a unique and innovative alternative. This freedom of choice modality is perceived as an excellent way to receive the benefit, since the workers can eat their lunch at the workplace. During the working day, besides enjoying an offer of healthy food at lunchtime, they can also have it during the rest of the day, through a cart with healthy foods (fruits, cereals, dairy, etc.), that circulates around the different areas of the organization, and which has better prices than the ones found at the stores outside. According to the company, the healthy food cart has generated a very good impact on the opinion and satisfaction of the workers; in addition to a good work environment, because it facilitates the access to good foods without having to stop work.

The initiative has been complemented with communicational campaigns about a healthy diet and its benefits, which are welcome by the workers and shared with other countries, seeking the globalization of practices associated to a healthy life. In order to maintain the participation of the workers and directors, they have a Committee called Vida Sana which was created from the concern by a group of workers about how to educate their workmates on a healthy lifestyle. They generated a strategic alliance with the Human Resources Department of the company, with which they promote activities about and support healthy nutrition and sports. Within the activities, they emphasize the measurement of the nutritional state through the Body Mass Index (BMI), the delivery of

relevant information and competitions to lose weight, guided by a nutritionist. In all the cases, the participation is voluntary and very good results have been obtained, in terms of satisfaction and promotion of health.

Case 4

Energetic cost per work post. This case corresponds to a Chilean company, in the field of agro-industry, with more than 16,200 male workers all over the country, who work in shifts. In the company, the benefit of food is delivered through a canteen, and, in some cases, the workers have facilities inside their workplaces where they can keep their food refrigerated and a stove where they can heat it. The canteen is managed by a specialized company, offering different menus every day; it is supervised by a nutritionist, therefore, people have options of a balanced, varied and healthy food.

The company started to analyze the ergonomic characteristics of the work posts, which allowed to realize that some workers had a higher energetic expense. They began to question if the nutrition given in the working day addressed the workers' requirements. The advice of an external body was requested, and this analyzed matters related to occupational safety and health in order to assess the energetic expense at each work post. The study determined the levels of calories required for a certain job, and it allowed to evaluate the nutrition given to the workers. The findings were mostly positive. This study allowed to recognize that food must be consistent with the energetic expense made by a specific job, and that the company must act beyond the delivery of the food. At the moment, they are generating a health programme that allows them to give information to their workers about the benefits of eating healthily.



An important number of workers are given lunch at the company canteen, or through a bonus added to their salaries. However, about 40% of the workers do not receive any food benefit, a proportion which is higher in women

results of the structured survey

1. RESULTS BY GENDER

995 people were interviewed; this is 19% short of the proposed sample size. The interview was applied in 16 different types of companies, from which the highest number belonged in the areas of Commerce and Repair Workshop (n=210), Manufacturing Industry (n=159) and Construction (n=143).

TABLE 6
Age, educational level and labour characteristics of the sample, by gender

		Women %	Men %	Total %	Probability
Age in years	18 -29	35.7	31.4	33.0	
	30-39	34.6	30.0	31.7	
	40 and over	29.7	38.6	35.3	< 0.05
Educational level	Primary	2.2	8.7	6.3	
	Secondary, complete and incomplete	28.8	41.7	36.9	
	University or Technical, incomplete	14.5	16.3	15.7	
	University or Technical, complete	54.5	33.3	41.1	< 0.001
Contract Type	Indefinite	77.9	72.9	74.8	
	Fixed term	12.9	7.7	9.6	
	By task or job	1.4	14.3	9.5	
	Fees/Bill	4.2	3.0	3.4	
	Other/Does not know	3.6	2.1	2.7	< 0.001
Working hours	Daytime	88.0	86.0	86.8	
	Rotating shifts	3.6	8.5	6.7	
	Other (cycles/night time)	8.4	4.5	6.5	<0.005
Days of work per week	Five	77.4	59.1	66.1	
	Six	18.8	38.6	31.0	
	Others (rotating, variable)	3.8	2.4	2.9	< 0.001
Working hours, daily	< 7 hours	7.3	8.4	8.0	
	7 to 8 hours	19.0	16.7	17.6	
	8 to 9 hours	52.2	41.9	45.7	
	> 9 hours	21.5	33.0	28.7	<0.005

Source: Own elaboration

By gender, the main characteristics of the group studied are shown in Table 6, where 37% are women, and 63% men. The average age was 36.1 ± 10.8 years, with a high proportion of people under 40 years. More than 40% of this group had completed their higher education, and more women than men had reached this level of education. The vast majority of respondents had an indefinite employment contract, and a low percentage had contracts for the duration of the job or task, though this was somewhat higher in men. Predominantly, there are daytime working hours, five days a week, working from 8 to 9 hours daily, and women have a significantly more favourable situation.

The main characteristics of the companies where the sample was obtained, together with the workers' monthly net income, are shown in Table 7. 90% of them are companies in the private sector, with a relatively similar geographic distribution to the national distribution of the population. Most of the interviewees belonged in medium and large companies, a higher proportion compared to the country level, a fact that must be considered in the interpretation of the results. Seniority in the work position presents a great dispersion, although more than 50% of them had three years or less, which is in agreement with the high number of young people interviewed. The monthly net income also shows a high variability, with a low proportion at the level of the minimum wage, and 41% above the equivalent of US\$1,000 monthly. In almost none of these variables there were significant differences by gender.

TABLE 7
Type of company, geographic location, size and monthly net income, by gender

		Women %	Men %	Total %	Probability
Type of Company	Private	86.4	92.2	90.1	
	Public	13.6	7.8	9.9	<0.005
Geographic zone of the company	North of Chile	8.4	6.4	7.1	
	Central Chile	58.7	64.7	62.5	
	South of Chile	33.0	28.9	30.4	NS
Number of workers in the company	1 to 9	16.8	7.6	11.0	
	10 to 49	24.1	26.7	25.7	
	50 to 199	14.0	25.0	21.0	
	200 and more	45.1	40.7	42.3	< 0.001
Seniority in present post	Less than a year	25.4	25.7	25.6	
	1 to 3 years	24.0	29.8	27.6	
	3 to 5 years	14.3	13.6	13.9	
	5 to 10 years	17.0	14.1	15.2	
	10 years and more	19.3	16.8	17.7	NS
Net monthly income thousands CLP\$	< 182	6.4	4.5	5.2	
	183 to 296	30.0	27.6	28.5	
	297 to 496	26.3	24.1	24.9	
	497 to 896	25.2	25.2	25.2	
	897 and over	12.1	18.6	16.2	NS

NS: Non-significant statistically
Source: Own elaboration

A significant number of companies do not comply with at least one of the three minimum conditions established in Article 594 of Law 16,744: availability of space where to eat, that is clean most of the time and to have more than 30 minutes to eat. The situation observed was slightly more negative for women (Table 8).

TABLE 8
Compliance with legal aspects regarding nutrition, by gender

		Women %	Men %	Total %	Probability
Availability of a place where to eat	No	25.7	20.2	22.3	
	Yes	74.3	79.8	77.7	< 0.05
Clean place to eat food at work?	Always	55.3	56.1	55.8	
	Most of the time	24.6	28.6	27.1	
	At times	11.2	9.4	10.0	
	Almost never, never	5.0	2.5	3.5	
	Does not eat during working day	3.9	3.4	3.6	NS
Time available for eating	30 minutes	22.6	18.4	20.0	
	30 to 45 minutes	18.7	13.8	15.6	
	45 to 60 minutes	47.8	48.6	48.3	
	More than one hour	7.5	15.6	12.6	
	Others/Does not know	3.4	3.6	3.5	<0.005

NS: Non-significant statistically
Source: Own elaboration

When analyzing the type of benefits received as to food, an important number of workers are given lunch at the company canteen, or through a bonus added to their salaries. However, about 40% of the workers do not receive any food benefit, a proportion which is higher in women (Table 9).

TABLE 9
Benefits received in relation to food at work, by gender

Form of delivery for food benefit	Women %	Men %	Total %	Probability
At the company (canteen)	27.0	32.3	30.3	
It is added to monthly remuneration	19.4	23.7	22.1	
Others (Cheque for restaurant, agreements)	7.5	9.4	8.8	
Does not receive it	46.1	34.6	38.8	< 0.001

Source: Own elaboration

As to accessibility and degree of satisfaction by the lunch, some problems are found because of: the time taken to move and have lunch, which sometimes exceeds 10 minutes; people do not always eat undisturbed; or the place where they eat is not comfortable (Table 10).

TABLE 10
Lunch accessibility and satisfaction, by gender

		Women %	Men %	Total %	Probability
Waiting time for moving and have lunch	Under 5 minutes	41.6	35.5	37.8	
	5 to minutes	30.2	33.2	32.1	
	Over 10 minutes	26.5	29.2	28.3	
	Does not eat lunch	1.7	2.1	2.0	<0.05
Time availability to eat undisturbed	Always	35.7	44.3	41.2	
	Most of the times	33.5	34.3	34.0	
	At times	15.1	14.3	14.6	
	A few times, never	13.7	5.8	8.7	
	Does not have lunch	2.0	1.3	1.5	< 0.001
Satisfaction with the place and time to eat food	Always	46.1	48.9	47.8	
	No, it could be better	44.7	45.2	45.0	
	There is no specific place	7.2	3.6	5.0	
	Does not have lunch	2.0	2.3	2.2	NS

NS: Non-significant statistically
Source: Own elaboration

There are also important problems in the eating habits, since nearly 20% of the sample do not have breakfast regularly; a third does not have lunch regularly, mainly due to lack of time or money; and a significant fraction has quick lunch, probably because of restrictions of time in the working day (Table 11). Lunch at work includes vegetables and fruits in less than 60% of the cases, which does not comply with the dietary guides by the Ministry of Health. When returning home, an important number of people only have a light meal, which usually has a lower nutritional value than the one of a balanced dinner that includes fruits and vegetables. Finally, a significant number of people mention some negative effect linked to lack of lunch, mainly fatigue, headaches and irritability, which has a likely impact on productivity.

Table 12 includes the sociocultural aspects of food that were studied. Most of the workers prefer to have lunch at a canteen or restaurant, though nearly half of them bring food from home. They value being given a balanced nutrition, although there is some degree of surprise among fellow workers when one of them comes with fruit and vegetables on his tray, and most of them admit the importance of eating accompanied. A highlight is that over 20% of the interviewees claim that always or nearly always it is highly-valued by the company to work during lunchtime, without leaving any protected time for this fundamental right. In all the variables there are differences by gender, and women show a higher concern about a healthy diet.

TABLE 1 I
Food habits during the working hours, by gender

		Women %	Men %	Total %	Probability
Frequency of lunch in the working hours	Every day	68.6	71.4	70.4	
	Almost every day	18.8	19.1	19.0	
	Some days /almost never/never	11.6	9.5	10.6	NS
Reasons for not having lunch (multiple answers)	Lack of time	47.9	52.4	50.7	NS
	To save/lack of money	18.7	16.4	17.3	NS
	There is no place/Other	17.0	14.9	15.7	NS
	Always has lunch	37.4	38.1	37.8	NS
Breakfast during working hours	Yes, at home	44.7	38.6	40.9	
	Yes, at work	37.1	45.1	42.1	
	Sometimes/No breakfast	18.2	16.3	19.0	NS
Type of food when they get home	Light evening meal	56.1	36.9	44.0	
	Supper	16.6	27.3	23.4	
	Has dinner and supper	20.6	32.6	28.1	
	Does not eat	6.8	3.2	4.5	< 0.001
Type of food least skipped in the working week	Breakfast	33.3	28.2	30.1	
	Lunch	46.3	50.1	48.7	
	Light evening meal	12.2	12.2	12.2	
	Supper	8.2	9.5	9.0	NS
Speed when eating	Slowly	10.3	15.1	13.3	
	Moderately	46.1	52.2	50.0	
	Quickly	43.6	32.7	36.7	<0.005
Habitual content of lunch	Plate of food with fruits and vegetables	59.5	57.1	59.0	
	Plate of food without fruits or vegetables	26.2	31.3	29.4	
	Fast food /snacks	13.2	9.1	10.6	
	Does not eat lunch	1.1	2.5	2.0	<0.01
Self-reported effects when has no lunch (multiple answers)	Fatigue, tiredness	41.3	38.1	39.3	NS
	Headache	32.4	24.4	27.4	<0.01
	Lack of concentration	13.7	13.2	13.4	NS
	Irritability	21.5	17.1	18.8	NS
	No effect	6.7	12.4	10.3	<0.01
	Always has lunch	27.7	26.0	26.6	NS

NS: Non-significant statistically
Source: Own elaboration

TABLE 12
Sociocultural aspects related to the food at work, by gender

		Women %	Men %	Total %	Probability
Optimal way to receive food at work	Canteen	46.8	52.3	50.3	
	Cheque for restaurant	23.0	11.5	15.8	
	Money added to remuneration	22.1	25.5	24.3	
	Others (agreements, others)	8.1	10.7	9.4	< 0.001
Their personal option to have lunch at work	Canteen	31.1	41.4	37.6	
	Restaurant	8.4	10.4	9.6	
	Bring food from home	52.7	40.0	44.7	
	Snack/no lunch	7.8	8.2	8.0	< 0.001
In the company, is it well-valued to work at feeding time?	Almost always/always	18.7	23.0	21.4	
	At times	22.9	17.0	19.2	
	A few times	17.6	25.0	22.2	
	Never	40.8	35.0	37.2	<0.01
Opinion on the best nutrition to get at work	To eat till feeling satisfied	5.6	17.2	12.9	
	Balanced eating	93.0	81.5	85.8	
	Skip the main meal	1.4	1.3	1.3	< 0.001
Higher concern about getting a healthy diet	Women	74.0	61.4	66.1	
	Men	1.7	6.4	4.7	
	Both the same	24.3	32.2	29.2	< 0.001
Perception of the importance of eating accompanied	Always	52.0	46.6	48.6	
	Most of the times	24.6	24.5	24.5	
	At times	10.0	14.5	12.8	
	It is not important	13.4	14.4	14.1	NS
Attitude of workmates when one includes fruits and vegetables in one's diet	Are you teased?	8.1	13.7	11.6	
	Are you congratulated?	4.7	6.2	5.7	
	They ask you if you are on a diet?	33.8	32.7	33.1	
	They say nothing	53.4	47.4	49.6	<0.05

NS: Non-significant statistically
Source: Own elaboration

Even though it is a young population with an average age of 36 ± 10 years, 29.2% of them have already been diagnosed with an earlier disease, mainly high blood pressure and obesity (Table 13). Considering that studies of preventive health in an apparently healthy population show that nearly half of the people in whom a disease was detected are unaware of their condition, the actual prevalence of diseases in this population must be significantly higher. The same happens with obesity, as many people have a distorted opinion of their nutritional state.

When the analysis is based on age, the findings show that there already is a deterioration in the health of young adults, and there is an important increase of the prevalence in people over 40, from which only about half of them are apparently healthy. This reinforces the importance of the early preventive interventions, before the damage takes place.

TABLE 13
Data on diagnosed earlier diseases, by gender and age

Disease (multiple answers)	Women %	Men %	Total %	Probability
Hypertension/cardiovascular dis.	8.1	11.2	10.0	NS
Obesity	9.8	11.8	11.1	NS
Diabetes mellitus	3.6	3.0	3.2	NS
Cholesterol or high triglycerides	13.4	15.6	14.8	NS
Healthy	71.5	70.4	70.8	NS
Disease (multiple answers)	< 30 years %	30-39 years %	40 and over %	Probability
Hypertension/cardiovascular dis.	3.1	4.9	20.7	< 0.001
Obesity	6.7	11.7	13.0	<0.05
Diabetes mellitus	1.8	1.6	6.2	< 0.001
Cholesterol or high triglycerides	9.8	13.0	21.2	< 0.001
Healthy	82.9	76.3	56.6	< 0.001

NS: Non-significant statistically
Source: Own elaboration

2. RESULTS BY COMPANY SIZE

The same previous analysis was made based on the size of the companies, grouping those that had: less than 50 workers (small and microcompanies 36.7%); between 50 and 199 workers (medium 21.0%); and 200 workers and over (large companies 42.3% of the sample). According to what has been observed in previous studies and in the qualitative interviews, the degree of compliance with the legal aspects is linked to the company size, and the largest companies were more likely to provide a clean and suitable place for their workers to eat (Table 14). As to the time available to eat lunch, the behaviour is variable, and the microcompanies frequently gave more than 1 hour for their workers to eat.

TABLE 14
Compliance with legal aspects, by size of company

		Microcom- panies %	Medium %	Large %	Probability
Availability of a place where to eat	No	32.2	13.8	18.2	
	Yes	67.8	86.2	81.8	< 0.001
Clean place to eat food at work?	Always	49.5	54.3	62.0	
	Most of the times	28.3	30.0	24.2	
	At times	12.9	9.1	8.8	
	Almost never, never	3.3	3.3	3.3	
	Does not eat during working hours	6.0	3.3	1.7	<0.01
Time available for eating	30 minutes	14.0	21.4	25.2	
	30 to 45 minutes	17.6	13.8	14.6	
	45 to 60 minutes	39.3	53.8	52.9	
	Over one hour	22.2	9.1	5.7	
	Others/Does not know	6.9	1.9	1.6	< 0.001

Source: Own elaboration

There are also important differences as to the benefits received in nutrition, with almost 4 times more lunches at the canteens of large companies, and twice more people than do not receive any benefit in the microcompanies (Table 15).

TABLE 15
Benefits received in relation to food at work, by company size

Form of delivery of food benefit	Microcompany %	Medium %	Large %	Probability
At the company (canteen)	13.2	14.9	51.9	
It is added to monthly remuneration	25.5	21.6	19.2	
Others (cheque for restaurant, agreements)	9.9	14.9	4.3	
Does not receive it	51.4	48.6	24.6	< 0.001

Source: Own elaboration

TABLE 16
Accessibility to and satisfaction by lunch, by size of the company

		Microcompanies %	Medium %	Large %	Probability
Waiting time for moving and have lunch	Under 5 minutes	38.2	35.7	39.5	
	5 to 10 minutes	27.8	37.6	31.8	
	Over 10 minutes	30.4	25.7	27.7	
	Does not eat lunch	3.6	1.0	1.2	< 0.001
Time availability to eat undisturbed	Always	38.2	38.1	45.7	
	Most of the times	31.0	39.1	33.7	
	At times	18.4	14.8	11.0	
	A few times, never	9.6	7.1	8.6	
	Does not have lunch	2.8	0.9	1.0	<0.02
Satisfaction with the place and time to eat food	Always	42.2	45.7	53.4	
	No, it could be better	47.9	51.0	39.5	
	There is no specific place	6.6	1.4	5.5	
	Does not have lunch	3.3	1.9	1.6	<0.002

Source: Own elaboration

As to the accessibility to and satisfaction by lunch, the study shows some significant differences, although less marked, with a somewhat better situation in the large companies (Table 16).

The feeding habits also show significant differences by the size of the company (Table 17). The main differences are related to a higher frequency of breakfast at work, lower omission of lunch during the working hours, and a higher inclusion of vegetables and fruits at lunch in the larger companies. The lack of money for lunch or skipping lunch in order to save money is more frequently observed in the microcompanies. The negative effects associated to the lack of lunch are very similar in the three groups.

TABLE 17
Food habits during the working hours, by company size

		Microcom- panies %	Medium %	Large %	Probability
Frequency of lunch in the working hours	Every day	67.0	66.1	73.0	
	Almost every day	18.7	19.0	19.8	
	Some days /almost never/never	14.3	11.9	7.2	<0.05
Reasons for not having lunch (multiple answers)	Lack of time	45.3	58.1	52.2	<0.01
	To save/lack of money	25.0	17.1	10.5	< 0.001
	There is no place/Other	16.8	13.8	16.3	NS
	Always has lunch	35.4	34.3	40.4	NS
Breakfast during working hours	Yes, at home	47.6	47.9	31.7	
	Yes, at work	31.9	39.2	52.0	
	At times/does not eat breakfast	20.5	12.9	16.3	< 0.001
Type of food when they get home	Light evening meal	45.0	40.7	46.0	
	Supper	18.1	20.1	29.4	
	Light evening meal and supper	32.2	35.4	20.2	
	Does not eat	4.7	3.8	4.4	< 0.001
Type of food least skipped in the working week	Breakfast	36.3	31.1	25.1	
	Lunch	37.1	47.6	58.2	
	Light evening meal	15.4	12.6	9.7	
	Supper	11.2	8.7	7.0	< 0.001
Speed when eating	Slowly	14.0	16.7	10.3	
	Moderately	51.4	39.5	54.3	
	Quickly	34.6	43.8	35.4	<0.01
Habitual content of lunch	Meal with fruits and vegetables	49.3	50.5	69.0	
	Meal without fruits or vegetables	32.1	34.1	24.5	
	Fast food /snacks	15.3	13.5	5.5	
	Has no lunch	3.3	1.9	1.0	< 0.001
Self-reported effects when has no lunch (multiple answers)	Fatigue, tiredness	40.9	39.1	37.8	NS
	Headache	28.0	33.3	24.2	0.05
	Lack of concentration	17.3	11.4	11.5	< 0.05
	Irritability	21.4	17.6	17.9	NS
	No effect	9.1	12.4	9.6	NS
	Always has lunch	25.3	22.4	29.4	NS

NS: Non-significant statistically
Source: Own elaboration

The sociocultural aspects of nutrition also show important differences, based on the size of the company, following the same previous tendencies (Table 18). Thus, for example, people prefer to have lunch in a canteen, eat a balanced diet, and eat accompanied; also, the larger companies are more concerned about giving healthy food to their collaborators. The analysis cannot determine if these differences correspond to a policy by the company, or rather they are the consequence of differences in the socioeconomic levels of the workers, depending on which type of company they work for.

TABLE 18
Sociocultural aspects related to food at work

		Microcom- pany %	Medium %	Large %	Probability
Optimal way to receive food at work	Canteen	37.4	40.9	66.3	
	Cheque for restaurant	20.0	13.9	15.9	
	Money added to remuneration	12.6	15.4	9.6	
	Others (agreements, others)	30.0	29.8	22.2	<0.001
Their personal option to have lunch at work	Canteen	20.4	23.8	58.5	
	Restaurant	8.3	15.2	8.9	
	Bring food from home	60.9	49.1	28.5	
	Snack/no lunch	10.5	11.9	4.1	<0.001
Is it well-valued to work during lunchtime?	Almost always/always	18.7	21.0	24.6	
	At times	18.1	19.0	19.9	
	Not very often	25.6	27.6	16.5	
	Never	37.6	32.4	39.0	<0.02
Opinion on the best nutrition to get at work	To eat till feeling satisfied	17.7	18.3	5.7	
	Balanced eating	81.2	79.8	92.8	
	Skip main meal	1.1	1.9	1.4	<0.001
Higher concern about receiving healthy nutrition	Women	71.0	71.8	59.5	
	Men	5.2	3.8	5.0	
	Both the same	23.8	24.4	35.5	<0.005
Attitude of workmates when one includes fruits and vegetables in one's diet	Are you teased?	11.3	13.9	10.5	
	Are you congratulated?	7.4	3.8	5.3	
	They ask you if you are on a diet?	32.4	31.6	33.0	
	They say nothing	48.9	50.7	51.2	NS

NS: Non-significant statistically
Source: Own elaboration

Finally, the presence of previously diagnosed pathologies shows a very similar behaviour in the three groups. The only difference is a higher prevalence of hypertension and cardiovascular diseases in the large companies, although that population has an average age that is older than the other groups, which could partly explain the differences (Table 19).

TABLE 19
Data of previously diagnosed pathologies, by size of company

Disease (multiple answers)	Microcompanies %	Medium %	Large %	Probability
Hypertension/cardiovascular dis.	7.1	7.6	13.4	<0.01
Obesity	11.0	7.6	12.2	NS
Diabetes mellitus	2.8	3.3	3.6	NS
Cholesterol or high triglycerides	12.9	18.6	13.6	NS
Healthy	72.8	75.2	68.2	NS

NS: Non-significant statistically
Source: Own elaboration

3. RESULTS BY NET MONTHLY INCOME

As an indirect measurement of the socioeconomic level, the behaviour of the studied population was analyzed depending on the worker's monthly net income, categorized as: under CLP\$ 297,000 (33.9%), CLP\$297,000 to CLP\$496,000 (25.1%) and > CLP\$496,000 (41.0%).

In general, the results show more favourable conditions in almost all the variables for the group with a higher income (Appendix 5). Thus, for example, such group enjoys a greater availability of places where to eat, and these are cleaner, too. People in this group also receive feeding benefits more frequently, are given more time for eating calmly, show more satisfaction in relation to the place where they eat, do not skip lunch because of lack of money, and receive lunch that includes vegetables and fruits more often. Conversely, workers with low and middle incomes have poorer feeding conditions. In this sense, there would be a connection between the income level and the company size: the proportion of high income workers in large companies doubles the one in small enterprises. It is in the segment of small and medium-sized enterprises where the workers would need a major improvement in their feeding conditions.



*Food at work must not be deemed as an expense,
but as an investment that reduces many other costs
for the worker and the company.*

conclusions

1. The results of the study show there are important weaknesses in the system of food at work for the Chilean workers. Only 61% of the interviewees receive some type of food benefit, especially at the canteen of the company (30%), through money added to their remuneration (22%), or through a voucher for a restaurant (9%). 22% of the workers do not have a place to eat, and whenever one is available, it often does not comply with requirements about cleanliness, or the worker is not given enough time to have his lunch without any interruptions.
2. More than 20% of the workers receive as food benefit a certain amount of money added to their salaries. This has proved to be a bad alternative, since that money is frequently used for other purposes, therefore, there is no improvement in the access to food or the quality of food.
3. 30% of the interviewees do not eat lunch regularly, which provokes physical and psychological ailments (fatigue, headache, lack of concentration, irritability, etc.) which impact the labour productivity. Additionally, 20% admit they have no breakfast regularly, which can also have a negative consequence on work performance. The main reasons for not having lunch are related to lack of time and economic limitations. The quality of lunch is not considered as suitable by at least 40% of the interviewees, because it does not usually include vegetables and fruits, among other weaknesses.
4. For most of the workers, the best scenario is food being given at a canteen, for it is supervised, varied and nutritious, and they can eat in a pleasant environment accompanied by their workmates.
5. At a first stage, a huge national challenge is to ensure that the workers actually receive food during their working hours, complying with the current legislation. The worker can eat more and better, as long as the employer, firstly, facilitates the access to food.
6. At the same time, it is fundamental to promote the consumption of a healthy diet and the implementation of promotion activities for good health, so that there is a reduction in the risk of diseases that affect the active working population.

7. The data available at national level on the quality of the food given to the workers are very limited, but they show unhealthy nutrition behaviours. There are several studies on the health conditions of the workers who show a high prevalence of obesity, high blood pressure and elevated cholesterol, among other pathologies, constituting an important issue of public health even in people under 30 years of age.
8. Even though diverse public and private initiatives have been implemented to improve nourishing behaviours and to control obesity (Estrategia de Intervención a través del ciclo vital, Estrategia Global contra la obesidad, Programa Cinco al día, Escuelas Saludables, Programa Vivir Bien, Elige Vivir Sano), the results have not turned out as expected and there is an increasing prevalence of obesity and all the pathologies associated to unhealthy nutrition.
9. It is particularly worrying to observe a high prevalence of chronic pathologies associated to the nutrition and lifestyles in the studied sample, considering the population is under 40 years old on average. There is an important increase of the pathologies based on age, which undoubtedly generates a negative economic impact, in terms of healthcare claims and decrease of productivity.
10. Food at work must not be deemed as an expense, but as an investment that reduces many other costs for the worker and the company. The governments and the employers can implement a variety of measures to improve the access of the workers to food and rest during the working hours, and those measures are usually cost-effective.
11. As Wanjek claims (2005), to invest in food at work allows to reduce health costs, taking into account that workers who are obese or with other pathologies, are twice more likely to show absenteeism.
12. Numerous international studies lead to the conclusion that there is a direct relationship between a healthy diet, labour safety and productivity, as good nutrition stimulates greater: work motivation, physical and mental abilities, concentration and a feeling of pleasure, owing to a balanced intake of food. Furthermore, a better level of satisfaction at work is generated when the workers perceive a positive attitude and a higher concern on the side of the company.
13. Conversely, the absence of a suitable nutrition during the working day can generate physical or mental fatigue, while the excess of food can produce sleepiness, and both cases have an impact on the workers' cognitive ability and responsiveness.
14. The existing legislative framework in Chile refers only to the hygiene conditions and the time allotted for lunch, which is considered insufficient, based on the diversity of labour contexts and the importance of food at work. Compliance with the regulations is probably weak, observing the high number of workers who claim they do not even have a dedicated place where to eat.

15. Most of the workers declare they know about and wish to eat healthy food during the working day; however, only 59% receive fruits and vegetables regularly. There are structural hindrances to receive a healthy diet at work, among them it is possible to identify: not enough time available, inaccessibility, distance between places of work and home, and higher costs for healthy food.
16. Important differences exist in the type of nutrition by social class. The higher the income, the better the type and form of nutrition are, generally through canteens or with vouchers for restaurants. The lower the income, the more precarious the worker's situation is, his food is simpler and less nutritious, or he does not even get any food at all.
17. Based on the interviews and the bibliographical reviews, it is clear that the dietary behaviours have cultural and, even, affective components. Therefore, the modification of food habits implies considering not only the nutritional aspects, but also the perceptions and values associated to food.
18. Some State and private initiatives have been made that aim at establishing practices of healthy food in the context of work. Nevertheless, they have a limited coverage and they do not always have continuity in time, which limits the possibility of generating the expected changes.
19. In Chile, there are some cases of good practices in food at work, which must be socialized to encourage their application in other companies.
20. A great opportunity exists to achieve the objective of offering a healthy nutrition to the workers, considering that only 12.8% of the companies state that they do not do it because of its high cost.
21. From the interviews to relevant stakeholders, it is considered that the education and the social dialogue between the different actors involved in the subject of food at work are necessary conditions for implementing programmes that seek to intervene in food habits and conditions during the working hours. It is fundamental that these programmes are part of the labour policies, are carried out steadily over time and are evaluated in their implementation and results.

recommendations

EMPLOYERS

- The employers must consider that the investments in a healthy nutrition are not an expense, but that a good diet will result in significant economic benefits. It is necessary that the companies provide places and options of healthy food, through agreements with institutions, an active participation of the companies in the maintenance of sanitary conditions and ensuring food safety, and, as far as possible, more investment in nutrition.
- It is fundamental to accomplish more access of the workers to healthy foods and to increase the break times for feeding, mainly in those companies in which the workers have to move to other facilities. It is desirable to consider specific foods for those workers with special needs, like people who suffer from diabetes, have cardiovascular risk, are obese, pregnant women, etc.
- Measures in this area should be adopted permanently, as part of the companies' policies on safety and health.
- Giving a certain amount of money added to the remuneration, as a food benefit, should be re-evaluated because frequently that option does not reach the expected objective, which is that the worker has lunch regularly. Ideally, the company must encourage workers to eat healthy food.
- An alternative for micro and small companies is to generate the basic conditions for their workers to receive their food at rooms or small kitchens featuring the proper hygienic conditions, which has a lower cost of implementation. The equipment will depend on each company, but it is desirable to invest in small household appliances (microwave oven, refrigerator, cooker) and, possibly, in some form of entertainment, like television sets, radios or games, which can contribute to a substantial improvement of the conditions in which the workers feed themselves.
- It is important to complement the activities with educational campaigns on the subject of nutrition, starting from the managers and directors of human resources and prevention, to move on later to all of the hierarchical levels of the company, including the workers and their families. Various communication strategies can be used, such as newsletters, corporate news, presentations by specialists, education on health for the families, and so on.

WORKERS AND UNIONS

- A first goal is to ensure there is a suitable option for food at work, adapted to the characteristics of each company and that complies with the current legislation.
- In order to establish healthy food practices in the workplaces, it is necessary that the workers and the unions become active participants in the processes, generating strategic alliances that seek to promote good eating habits.
- When the unions participate in collective bargaining processes, food at work must be approached exclusively from the point of view of the workers' health, avoiding an economic perspective. Options that must be preferred are: canteens, voucher for restaurant, or agreements, instead of a contribution in money, as this does not ensure the money will be used on food or on healthy comestibles.
- It is necessary that the workers and the unions inquire about and get training in both healthy food and implementation of programmes in the workplaces. This allows that future decisions are based on a suitable knowledge on the matter, and also that they can disseminate the information to the rest of the workers.
- In addition, they can participate in the monitoring of the conditions for implementing a healthy nutrition in the workplaces, by enforcing the rest times, the hygienic conditions of the spaces dedicated to eat food, and the programmes that are implemented to promote and establish good practices of food at work.

THE STATE

- It is desirable that the State plays a more active role in the subject of food at work.
- It is necessary to analyze various alternatives which encourage the companies to improve their food at work practices. The obligations of the company to have a place where the workers can feed themselves, and to provide them with a minimum time to do so, are not sufficient for the implementation of a healthy food scheme in the workplace.
- The interventions must go beyond communicational campaigns directed to the general population, and must have a suitable methodological basis for evaluating their effectiveness. These interventions will have to be underpinned by public policies about healthy nutrition, properly related to the national policy on occupational safety and health at work, in order to specifically address the working population, by economic activity, size of company or geographic location.
- It is considered necessary to carry out more studies that target specific groups of workers, the suitable foods for them to perform their tasks well, and the best ways to deliver food to them (canteen, vouchers for restaurant, agreements with other companies, etc.).

- It is recommended to have a close monitoring of the hygienic conditions of the place in which feeding takes place and the time allowed for the workers to have a break, complying with the current regulations.
- Educational activities for the companies, the workers and their families are fundamental to carry out these practices, as well as promoting the publicity of healthy foods.
- Additionally, the possibility of establishing State subsidies for the companies in order to contribute to the delivery of better food to the workers should be considered.
- The State can also create incentives that award the companies that implement better programmes of health promotion and healthy nutrition for their workers.
- As a departure point for any proposal, tripartite meetings should be established including the State, the workers and the employers, to begin a deep social dialogue focusing on work, occupational safety and nutrition.
- By establishing a dialogue, spaces for change can be generated that consider what was already concluded by Wanjek (2005) *"without a base of a good nutrition in the workplace, many other benefits make no sense. A good medical plan will be pushed to the limit, if the workers become ill due to a poor nutrition. The retirement benefits are not useful if the worker passes away because of a stroke or heart attack once he has retired. It is impossible to guarantee occupational safety, productivity and investment when the workers are ill. The governments, the employers, the workers and their organizations must jointly take advantage of the opportunity to use the workplace as a platform to promote good nutrition with the aim of reaping the benefits of having healthy food: good health, more safety, better productivity, and higher economic and civil growth in the society. We look forward to the day when the workers have access to a decent meal during the working hours and have suitable rest"* (pp., 401).

ACADEMICS, UNIVERSITIES

- The academics and the universities can contribute with new studies that analyze the magnitude of the problem, the consequences of poor nutrition, the costs in health and productivity at the companies which do not include food at work, and the impact of the interventions and programmes that are being carried out. The existence of more scientific information at national level will facilitate the implementation of good practices of food at work.
- It is also recommended that the curricula of students in courses related to the management and administration of companies and the subject of occupational safety include subjects like: healthy food and promotion practices at the workplace for a healthy lifestyle.
- Important technical contributions can be made through consultancy and agreements with the companies, especially the micro, small and medium-sized ones, as these concentrate most of the workers in Chile, and where greater weaknesses in the feeding systems exist.

MUTUALITIES

- It is indispensable that the links between occupational safety and food are studied, so that this aspect is considered as a possible triggering factor of labour accidents, and it is necessary to actively work with the companies to promote practices of healthy food at work.
- It is important to encourage the use of preventive health screenings in all the members, which allows to detect and act earlier on the existing problems.
- The mutualities can contribute with studies on the associated energy expenditure linked to the different work posts, so as to estimate the most suitable food for the workers.

references

1. Bedregal P, Margozzini P, González (2008). Estudio de carga de enfermedad y carga atribuible. Accessed: http://epi.minsal.cl/epi/html/invest/cargaenf2008/Informe%20final%20carga_Enf_2007.pdf
2. Caichac A, Belmar P, Orellana A. (2012) Conocimientos sobre el programa "Alimentación y Equilibrio" y hábitos alimentarios de funcionarios de empresas usuarias de ticket Restaurant, INTA, Santiago.
3. Dejmård, J. (2011). "Can worksite nutritional interventions improve productivity and firm profitability? A literature review". *Perspectives in Public Health*, 131 (4): 184-192.
4. Fagalde MP, del Solar JA, Guerrero M, Atalah E. Factores de riesgo de enfermedades crónicas no transmisibles en funcionarios de una empresa de servicios financieros de la Región Metropolitana. *Rev Méd Chile* 2005; 133: 919-28.
5. Government of Chile. Elige Vivir Sano programme. <http://www.eligevivirsano.cl/>
6. Goiría, J. I. Ormazábal (2007). Alimentación y Trabajo. La Mutual de España.
7. Henrique, D., Moura K., Lobo, D., Constante, P. (2010) "The influence of the availability of fruits and vegetables in the workplace on the consumption of workers", *Nutrition & Food Science*, 40 (1): 20 – 25.
8. Houghton, J., Neck, C., Cooper, K. (2009) "Nutritious food intake: a new competitive advantage for organizations?". *International Journal of Workplace Health Management*, 2 (2): 161-179.
9. ILO. The new SOLVE course: Addressing psychosocial factors through health promotion in the workplace, 2011.
10. Instituto De Seguridad Laboral. Primera Encuesta Nacional sobre Empleo, Trabajo, Salud y Calidad de Vida de los Trabajadores y Trabajadoras en Chile. Document downloaded on 12 July 2012, from: <http://www.saludytrabajo.cl/>
11. Laing SS, Hannon PA, Talburt A, Kimpe S, Williams B, Harris JR (2012). Increasing evidence-based workplace health promotion best practices in small and low-wage companies. *Prev Chronic Dis*. 9: 110186.
12. Leighton, F., Polic, G., Strobel, P., Strobel, D., Pérez, C., Martínez, C., Vásquez, L., Castillo, O., Villaroel, L., Echeverría, G., Urquiaga, I., Mezzano, D., Rozowski, J. (2009). "Impacto en la Salud de Dieta Mediterránea implementada en el Trabajo". *Public Health Nutrition*, 12 (9A): 1635- 1643.
13. Maes L, Van Cauwenberghe E, Van Lippevelde W, Spittaels H, De Pauw E, Oppert JM, Van Lenthe FJ, Brug J, De Bourdeaudhuij I (2011). Effectiveness of workplace interventions in Europe promoting healthy eating: a systematic review. *Eur J Public Health*. ; 21: Jul 23.
14. Meenan, R., Vogt, T., Williams, A., Stevens, V., Albright, C., Nigg, C. (2010). "Economic Evaluation of a Worksite Obesity Prevention and Intervention Trial among Hotel Workers in Hawaii". *J Occup Environ Med*, 52 (1): S8.

15. Ministerio de Salud. Departamento de Epidemiología. Departamento de Promoción de Salud. Encuesta Nacional de Calidad de Vida y Salud. Chile 2010.
16. Ministerio de Salud. Encuesta Nacional de Salud 2010. Available from: http://www.redsalud.gov.cl/portal/docs/page/minsalcl/g_home/submenu_portada_2011/ens2010.pdf
17. Ministerio de Salud. Presentación Panorama de Salud 2011: Informe sobre Chile y comparación con países miembros. Document downloaded on 8 July 2012, from: <http://www.eligevivirsano.cl/wp-content/uploads/2012/01/Panorama-de-la-Salud-2011.pdf>
18. Pérez, R., Hromi- Fiedler, A., Vega, S., Bermúdez, A., Segura, S. (2008). "Impact of peer nutrition education on dietary behaviours and health outcomes among Latinos: a systematic literature review". *J Nutr Educ Behav*, 40 (4): 208- 225.
19. Pinheiro AC, Atalah E. Propuesta de una metodología de análisis de la calidad global de la alimentación. *Rev Méd Chile* 2005; 133: 175-82.
20. Pomerleau, J., Lock, K., Knai, C., McKee, M. (2005). "Interventions Designed to Increase Adult Fruit and Vegetable Intake Can Be Effective: A Systematic Review of the Literature". *J Nutr*, 135 (10): 2486- 2495.
21. Pridgeon A, Whitehead K (2012). A qualitative study to investigate the drivers and barriers to healthy eating in two public sector workplaces. *J Hum Nutr. Diet*; 35: August.
22. Promondo e Isapre Consalud. Sondeo sobre salud laboral en Chile, Santiago, 2012.
23. Quintiliani, L., Poulse, S., Sorensen, G. (2010). "Healthy eating strategies in the workplace". *International Journal of Workplace Health Management*, 3 (3): 182-196.
24. Ratner, R., Sabal, J., Hernandez, P., Romero, D., Atalah, E. (2008). "Estilo de Vida y Estado Nutricional de Trabajadores en Empresas Públicas y Privadas de dos regiones de Chile". *Revista Médica de Chile*, 136 (11): 1406- 1414.
25. Ratner R. (2006) ¿Por qué preocuparnos de los estilos de vida del personal de una empresa? *Nutrición XXI*, No 15: 26-27.
26. Ruiz, M., Cifuentes, T., Segura, O., Chavarría, P., Sanhueza, X. (2010). "Estado Nutricional de Trabajadores bajo Turnos Rotativos o Permanentes". *Revista Chilena Nutrición*, 37 (4): 446- 454.
27. Søgaard M., Arsky, G., Brandhøj, M., Nyberg, M., Roos, E., Egberg, B. (2010) "Eating at worksites in Nordic countries: national experiences and policy initiatives", *International Journal of Workplace Health Management*, 3 (3): 197 – 210.
28. Steenhuis, I., Van Assema, P., Van Breukelen, G., Glanz, K., Kok, G., De Vries, H. (2004). "The impact of educational and environmental interventions in Dutch worksite cafeterias". *Health Promot. Int*, 19(3): 335-343.
29. Vio F, Albala C, Kain J. Nutrition transition in Chile revisited: mid-term evaluation of obesity goals for the period 2000-2010. *Public Health Nutr*. 2008; 11: 405-12.
30. Wanjek, C. (2005). "La alimentación en el Trabajo: Soluciones Laborales para la Desnutrición, la Obesidad y las Enfermedades Crónicas". Organización Internacional del Trabajo. Ginebra.
31. WHO. Interventions on diet and physical activity: what works, Geneva 2010.
32. Zárata, A., Crestto, M., Maiz, A., Ravesta, G., Pino, M., Valdivia, G., Moreno, M., Villarroel, L. (2009). "Influencia de la Obesidad en los Costos de Salud y en el Ausentismo Laboral de Causa Médica en una Cohorte de Trabajadores". *Revista Médica de Chile*, 137 (3): 337- 344.



*“The working day will be divided into two parts,
leaving between, at least, half an hour to eat food...”*

appendix 1

Articles in the Code of Labour related to nutrition

Article	Content
10	On the stipulations that an individual contract of work must contain: "It should also be noted that the additional benefits to be provided by the employer are in the fashion of dwelling, electricity, fuel, food or any other benefits in the shape of goods or services."
34	On the rest time within the daily working hours: "The working day will be divided into two parts, leaving between, at least, half an hour to eat food . This intermediate period will not be considered as worked to compute the duration of the working day."
41	On the remunerations of the workers: "... the allocations for transport, petty cash book losses, wearing of tools and lunch, and allowances,... " are not considered as remuneration...
95	On the special norms for the temporary workers in agriculture: "... In the seasonal tasks, all employers will have to provide the worker with the hygienic and suitable conditions that allow him to maintain, prepare and consume foods . In the case that, because of distance or the difficulties in transport it is not possible for the workers to obtain their food, the employer will also have to supply it for his workers..."
151	On the contract of people who work at private homes: "The remuneration of the workers at private homes will be agreed upon by the parties, including, in addition to the payment in cash, the foods and the room , when the required services demand that the worker lives in the home of the employer..."

appendix 2

Articles in the Sanitary Code related to nutrition

Article	Content
94	On pharmaceutical products, foods and cosmetics: <i>"Nationwide, the Institute of Public Health will be the authority in charge of the sanitary control of pharmaceutical and cosmetic products, and will enforce compliance with the dispositions on the matter which are contained in the current Code. The bodies to watch nutritional products are the Services of Health, and in the Metropolitan Region of Santiago, the Environmental Health Service."</i>
95	<i>"The products referred to in the previous Article should correspond in their chemical composition and microbiological characteristics to their nomenclatures and to the established legal and regulatory denominations, and, in the case of foods, to their organoleptic characteristics, as well."</i>
96	<i>"It is forbidden to manufacture, import, possess, distribute and transfer, at any capacity, any pharmaceutical products, foods of medical use, cosmetics and nutritional products which are contaminated, falsified or altered."</i>
98	<i>"Foods of medical use are those that, because they have undergone processes that modify the relative concentration of the diverse nutrients in their composition or the quality of these, or that by the addition of substances foreign to their composition, acquire therapeutic properties. Those foods enriched simply with vitamins often present in them, will not be considered foods of medical use for the purpose of this Code."</i>
108	Specifically, on nutritional products: <i>"The denomination of foods or nutritional products shall be understood as any substance or mixture of substances intended for human consumption, including drinks and all of the ingredients and additives of those substances."</i>
109	<i>"The regulation will determine the characteristics that must be present in the foods or nutritional products intended for human consumption."</i>
110	<i>"The health authority will approve and monitor the operation of:</i> a) <i>the premises destined for the production, elaboration, packaging, storage, distribution and sale of foods, and</i> b) <i>the abattoirs and cold stores, either public or private."</i>
111	<i>"The National Service of Health will grant permits that authorize the production, distribution or sale of all foods."</i>

appendix 3

Articles in Supreme Decree 594 related to nutrition

Article	Content
12	On the provision of potable water: <i>“Every workplace must have potable water destined for human consumption and for basic necessities of hygiene and personal care, for individual or collective use. The facilities, fixtures, pipes and complementary devices of potable water services will have to comply with the current legal requirements on the matter.”</i>
13	<i>“Whichever the supplying systems are, the potable water will have to comply with the physical, chemical, radioactive and bacteriological requirements established in the current regulation on the matter.”</i>
14	<i>“Any place of work which has its own supply system, whose project will have to have received approval from the water authority, will have to maintain a minimum level of 100 litres of water per person per day, complying with the requirements established in Article 13 of the current regulation. The water authority, depending on the circumstances, will be able to authorize a smaller amount of potable water, which in no case may be less than 30 litres daily per worker.”</i>
28	On the dining rooms: <i>“When, by the nature or modality of the work that is performed, the workers are obliged to consume foods at the worksite, there will be a dining room for this purpose, which will be completely isolated from the areas of work and from any source of environmental contamination, and will be dedicated to eating. Such place can also be used to hold meetings and activities. The employer will have to adopt the measures necessary to maintain it in suitably hygienic conditions. The dining room will be provided with tables and chairs made of washable material and the floor must be solid material and easy to clean. This area must have protection systems that prevent the entry of vectors and will be equipped with potable water for cleaning hands and face. Furthermore, in the case of those workers who bring food from home when they start their daily work, this area must feature a refrigeration system, a stove, a dishwasher and electricity supply.”</i>
29	<i>“In the case that, because of the nature of the task and the system of shifts, the worker has to eat his food in dining rooms within the working area where the risk of contamination exists, the dining room will have to comply with the requirements of Article 28, guaranteeing, in addition, the isolation through a positive-pressure system inside to prevent the entry of polluting agents.”</i>
30	<i>“In those cases in which, because of the nature of the work and the geographic distribution of the workers in the same task, it is impossible to have a fixed dining room to gather all the workers to consume their foods, the company must have one or more mobile mesh rooms destined for that aim, equipped with tables and chairs with a washable cover, and clean water for people to wash their hands and faces before eating, without prejudice to what is stipulated in Article 29 of the current regulation. Without prejudice to the foregoing, in the cases in which the implementation of the mobile mesh rooms is impossible to carry out, the corresponding Health Service will be able to authorize, by a reasoned decision, a different system for providing the workers with food, all of which must be pursuant to the norms and instructions issued by the Chilean Ministry of Health. In no case, the worker must eat his food while he is performing his duties at the workplace.”</i>
31	<i>“The canteens intended to prepare foods for the personnel must be approved by the corresponding health authority.”</i>

appendix 4

SURVEY ON FEEDING PRACTICES AT WORK

The International Labour Office (ILO) is conducting a study that seeks to know the main feeding practices at work, in order to describe the reality of the workers in Chile, and generate focused recommendations, in an effort to tackle the current issues faced by Chile in matters of non-communicable diseases, such as obesity, diabetes and hypertension.

For this purpose, the present survey was constructed, aiming to capture the perceptions that the workers have on the main practices of food at work.

For the team in charge of this survey, it is fundamental to safeguard the confidentiality and anonymity of your answers. Therefore, do NOT write down your name anywhere on the survey, and be positive that your answers will be treated with the utmost of confidentiality, as they will not be used for any other aims than the ones specific to this study.

Please, **answers all the questions**. This will take you approximately 10 to 15 minutes. Remember that there are no good or bad answers. We are interested in knowing your opinion on the practices of feeding at your workplace. Any opinion or suggestion with respect to the questions here can be made at the end of this survey.

We appreciate your collaboration in this study, beforehand.



Do you want to participate in this study (*mark with an x*):

Yes No

i) Next, complete ALL the data as appropriate.

Age		
Gender (<i>mark with an x</i>)	Male	
	Female	
Education level (<i>mark with an x</i>)	Primary Incomplete	
	High School complete	
	Primary complete	
	University and/or Technical incomplete	
	High School Incomplete	
	University or Technical Complete	

Contract Type <i>(mark with an x)</i>	Fees/Bill	
	Fixed term	
	By task or job	
	Indefinite	
	Other	
Working time <i>(mark with an x)</i>	Does not know	
	Daytime only (by day)	
	In shifts (rotating day- night)	
	Night time only (at night)	
	In shifts by cycle (days of work by days of rest)	
Other		
How many days a week do you work? <i>(Write the number)</i>		
Average hours worked daily <i>(mark with an x)</i>	Less than 6 hours	
	Between 6 and 7 hours	
	Between 7 and 8 hours	
	Between 8 and 9 hours	
	More than 9 hours	
Seniority in present job <i>(mark with an x)</i>	Less than 1 year	
	Between 1 and 3 years	
	Between 3 to 5 years	
	Between 5 to 10 years	
Monthly net income <i>(mark with an x)</i>	More than 10 years	
	Under 182,000	
	Between 183,000 and 226,000	
	Between 227,000 and 296,000	
	Between 297,000 and 496,000	
N° of workers in the company or institution in which you work, at present <i>(mark with an x)</i>	Between 497,000 and 896,000	
	More than 897,000	
	1 to 9	
	10 to 49	
	50 to 199	
Type of Company or Organization in which you work at present <i>(mark with an x)</i>	Over 200	
	Public	
	Private	

- ii) Please, circle the alternative (letter) that better reflects your opinion. Do NOT forget to answer ALL the questions:
1. In your place of work, do you receive any type of food? Please, mark the modality in which you receive it:
 - a. Delivery of food in facilities of the company or institution (Canteen)
 - b. Cheque for restaurant
 - c. It is added to monthly remuneration
 - d. Agreement with restaurant
 - e. Other. Specify
 - f. No food received

 2. Does your workplace have spaces qualified and available to eat?
 - a. Yes
 - b. No

 3. The place where you usually eat during your day of work, is it clean?
 - a. Always
 - b. Most of the times
 - c. At times
 - d. Almost never
 - e. Never
 - f. I do not eat during my working day

 4. In your company or institution, formally, how long do you have to take a break (food)?
 - a. 30 minutes
 - b. Between 30 to 45 minutes
 - c. Between 45 to 60 minutes
 - d. More than 1 hour
 - e. I do not know
 - f. Other. Specify

5. In your working day, how long does it take you to get to the place where you usually eat your food and start to eat (consider time spent in queues, preparation, occupied seats, etc)?
- a. Under 5 minutes
 - b. 5 to 10 minutes
 - c. Between 11 to 15 minutes
 - d. Between 16 to 20 minutes
 - e. Over 20 minutes
 - f. I do not get any food
6. During the time intended to eat at work, can you eat undisturbed?
- a. Always
 - b. Most of the times
 - c. At times
 - d. Not very often
 - e. Never
 - f. I do not have lunch
7. Are you happy with the place and time destined for having your food?
- a. Yes, always
 - b. No, it could be better
 - c. There is no place
 - d. I do not have lunch
8. For you, which is the best way to receive food at work?
- a. Canteen
 - b. Cheque for restaurant
 - c. Money added to remuneration
 - d. Agreement with restaurant
 - e. Other. Specify
9. According to your perception, in your company or institution is it well-valued to work during the feeding time (lunch)?
- a. Always
 - b. Almost always
 - c. At times
 - d. A few times
 - e. Never

10. According to your opinion, is the company or institution where you work concerned about its workers receiving a healthy nutrition (that includes fruits, vegetables, fish, legumes)?
- a. Always
 - b. Frequently
 - c. At times
 - d. A few times
 - e. Never
 - f. The company does not give any food
11. In your opinion, to have a better performance at work, which is better?:
- a. To feed oneself until one is satisfied during lunch
 - b. To eat a balanced meal (including fruits, vegetables, fish, carbohydrates, legumes).
 - c. To skip the main meal (lunch) in order to continue working
12. During your daily working hours, is it important for you to eat accompanied?
- a. Always
 - b. Most of the times
 - c. At times
 - d. No, it is not important
13. According to your perception, who is more concerned about having a healthy nutrition (inclusion of fruits, vegetables, fish, legumes) during the working day?
- a. Men
 - b. Women
 - c. Both the same
14. When you include fruits and vegetables in your food at work, do your peers:
- a. Tease you (jokes)?
 - b. Congratulate you?
 - c. Ask you if you are on a diet?
 - d. Say nothing?
15. In your place of work, because of your choice:
- a. Do you eat in the canteen?
 - b. Do you eat in a restaurant?
 - c. Do you bring food from home?
 - d. Do you eat a snack?
 - e. Do you not have lunch?

16. Considering your working week, how often do you eat lunch?
- a. All the week
 - b. Almost every day
 - c. Some days
 - d. Almost never
 - e. I have no lunch
17. On average, how fast do you eat your main meal of the day?
- a. Slowly
 - b. Moderately
 - c. Quickly
18. When you have no lunch during your working hours, why don't you do it? (You can mark up to 3 options)
- a. Lack of time
 - b. In order to save
 - c. Lack of money
 - d. There is no place where to eat
 - e. Other. Specify
 - f. I always have lunch
19. When you have no lunch during your working day, what effects do you perceive? (You can mark more than one option)
- a. Fatigue - tiredness
 - b. Headache
 - c. Lack of concentration
 - d. Irritability (bad mood)
 - e. Other. Specify
 - f. No effect
 - g. I always have lunch
20. During your working week, what do you usually eat for lunch?
- a. Plate of food with fruits and vegetables
 - b. Plate of food without fruits or vegetables
 - c. Fast food (hotdogs, pizzas, sandwich, etc.)
 - d. Snack (cookies, dairy, soft drinks, cakes, crisps, coffee, etc.)
 - e. I have no lunch

21. During the working day, do you eat breakfast? _____
- a. Yes, at home _____
 - b. Yes, at work _____
 - c. A few times (at home or at work) _____
 - d. I do not have breakfast _____
22. During the working week, when you get home, do you? _____
- a. Eat a light meal _____
 - b. Eat supper _____
 - c. Have dinner and supper _____
 - d. I do not eat _____
23. During the working week, which of the following meals is the one that you least skip? _____
- a. Breakfast _____
 - b. Lunch _____
 - c. Evening meal _____
 - d. Supper _____
24. Currently, do you suffer from or get treatment because of the following causes: _____
- a. Hypertension _____
 - b. Obesity _____
 - c. Diabetes mellitus _____
 - d. Cardiovascular disease _____
 - e. Hypercholesterolemia (High Cholesterol) _____
 - f. High triglycerides _____
 - g. I am healthy _____

Before handing this in, check that all the questions have been answered. We appreciate your collaboration in this study, beforehand.

appendix 5

Compliance with legal aspects, by monthly net income

		< \$297,000 %	\$297-496,000 %	>\$496,000 %	Probability
Availability of a place where to eat	No	32.3	23.3	13.8	
	Yes	67.7	76.7	86.2	< 0.001
Clean place for food at work?	Always	44.9	55.8	64.5	
	Most of the times	31.6	24.9	24.4	
	At times	13.4	12.5	6.7	
	Almost never, never	6.2	2.0	1.7	
	Does not eat at work	3.9	4.8	2.7	<0.001
Time available for food	30 minutes	23.2	20.5	17.5	
	30 to 45 minutes	12.2	16.1	18.0	
	45 to 60 minutes	39.6	49.0	54.7	
	More than 1 hour	20.8	9.2	7.6	
	Others/does not know	4.2	5.2	2.2	<0.001

Source: Own elaboration

Benefits received linked to food at work, by monthly net income

Form of delivery of the food benefit	< \$297,000 %	\$297-496,000 %	>\$496,000 %	Probability
In the company (canteen)	20.6	25.3	40.4	
Added to monthly remuneration	22.8	24.1	20.0	
Others (Check for restaurant, agreements)	9.9	10.0	6.7	
Does not receive it	46.7	40.6	32.9	<0.001

Source: Own elaboration

Lunch accessibility and satisfaction, by monthly net income

		< \$297,000 %	\$297-496,000 %	>\$496,000 %	Probability
Waiting time for moving and having lunch	Under 5 minutes	31.3	40.2	42.6	
	5 to 10 minutes	33.0	35.3	28.6	
	Over 10 minutes	33.6	21.7	27.6	
	Has no lunch	2.1	2.8	1.2	<0.001
Time availability to eat undisturbed	Always	36.3	39.4	46.8	
	Most of the times	32.7	30.1	37.2	
	At times	16.7	17.3	10.8	
	A few times, never	12.2	10.4	4.7	
	Has no lunch	2.1	2.8	0.5	<0.001
Satisfaction with the place and time to eat food	Always	34.2	50.6	57.0	
	No, it could be better	57.1	39.8	38.3	
	There is no specific place	5.7	6.0	3.7	
	Has no lunch	3.0	3.6	1.0	<0.001

Source: Own elaboration

Food habits, by monthly net income

		< \$297,000 %	\$297-496,000 %	>\$496,000 %	Probability
Frequency of lunch in the working hours	Every day	70.8	69.4	69.5	
	Almost every day	16.1	18.1	22.9	
	Some days /almost never/never	13.1	12.5	7.6	<0.05
Reasons for not having lunch (multiple answers)	Lack of time	40.8	49.0	60.6	< 0.001
	To save/lack of money	31.9	14.9	6.4	<0.001
	There is no place/Other	12.8	20.9	15.3	<0.05
	Always has lunch	39.6	41.0	32.8	NS
Breakfast during working hours	Yes, at home	47.3	36.9	38.0	
	Yes, at work	31.3	48.2	46.9	
	At times/does not eat breakfast	21.4	14.9	15.1	<0.001
Type of food when they get home	Light evening meal	41.1	51.2	43.1	
	Supper	13.3	21.4	32.9	
	Has light evening meal and supper	40.2	24.2	19.8	
	Does not eat	5.4	3.2	4.2	<0.001
Type of food least skipped in the working week	Breakfast	32.1	32.1	28.3	
	Lunch	45.9	47.6	50.9	
	Evening light meal	15.9	10.6	10.1	
	Supper	6.1	9.7	10.7	0.05
Speed when eating	Slowly	18.2	11.2	10.1	
	Moderately	48.2	53.0	49.8	
	Quickly	33.6	35.8	40.1	<0.02
Habitual content of lunch	Meal with fruits and vegetables	47.3	55.9	68.1	
	Meal without fruits or vegetables	35.5	27.5	25.5	
	Fast food /snacks	15.4	12.6	5.4	
	Has no lunch	1.8	4.0	1.0	<0.001
Self-reported effects when having no lunch (multiple answers)	Fatigue, tiredness	58.3	61.9	62.9	NS
	Headache	32.7	24.5	25.1	0.05
	Lack of concentration	15.5	13.7	12.3	NS
	Irritability	17.9	24.5	17.0	<0.05
	No effect	8.9	8.0	12.3	NS
	Always has lunch	29.5	28.9	22.2	<0.05

NS: Non-significant statistically
Source: Own elaboration

Sociocultural aspects related to food at work

		< \$297,000 %	\$297-496,000 %	>\$496,000 %	Probability
Optimal way to receive food at work	Canteen	38.4	56.6	56.4	
	Cheque for restaurant	17.9	16.1	14.4	
	Money added to remuneration	29.7	20.9	21.3	
	Others (agreements, others)	14.0	6.4	7.9	<0.001
Their personal option to have lunch at work	Canteen	27.8	34.7	46.8	
	Restaurant	5.7	6.8	15.5	
	Bring food from home	56.4	48.8	32.8	
	Snack/no lunch	10.1	9.7	4.9	<0.001
Is it well-valued to work during lunchtime?	Almost always/always	15.7	25.3	24.6	
	At times	16.7	22.1	19.2	
	A few times	27.1	18.5	20.5	
	Never	40.5	34.1	35.7	<0.01
Opinion on the best nutrition to get at work	To eat till feeling satisfied	23.3	10.5	5.4	
	Balanced eating	74.9	88.3	93.4	
	Skip main meal	1.8	1.2	1.2	<0.001
Higher concern about receiving healthy nutrition	Women	74.2	60.5	63.3	
	Men	5.1	8.1	2.7	
	Both the same	24.7	31.4	34.0	<0.001
Perception of the importance of eating accompanied	Always	46.1	48.2	51.0	
	Most of the times	21.4	24.5	27.1	
	At times	17.9	9.6	10.8	
	It is not important	14.6	17.7	11.1	<0.01
Attitude of workmates when one includes fruits and vegetables in one's diet	Are you teased?	11.6	9.7	12.6	
	Are you congratulated?	5.1	5.7	6.4	
	They ask you if you are on a diet?	28.9	35.2	33.7	
	They say nothing	54.4	49.4	47.3	NS

NS: Non-significant statistically
Source: Own elaboration

Records of previously diagnosed pathologies, by monthly net income

Disease (multiple answers)	< \$297,000 %	\$297-496,000 %	>\$496,000 %	Probability
Hypertension/ cardiovascular dis.	8.3	10.8	10.6	NS
Obesity	7.7	6.8	15.8	<0.001
Diabetes mellitus	3.0	4.4	2.7	NS
Cholesterol or high triglycerides	14.6	12.5	15.8	NS
Healthy	74.7	72.3	67.7	NS

NS: Non-significant statistically
Source: Own elaboration

