October 2015

<u>CONSENT LETTER:</u> Parent's consent for their child to participate in an interview and Acceptance of the child to participate.

PARTICIPATORY INTERVENTION TO IMPROVE THE NUTRITION AND PHYSICAL ACTIVITY OF SCHOOL CHILDREN IN ACATLAN DE JUAREZ, JALISCO

Dear Sir / Mrs.:

On behalf of the Technological Institute of Higher Studies of the West (ITESO), the University of Guadalajara (UdeG), and the Ministry of Public Education (SEP), we extend a warm invitation to you and your child to participate in a study that has as its purpose the implementation and evaluation of a strategy to modify the environment of school-aged children and promote adequate physical activity and healthy eating, thus improving their body composition and physical fitness.

Procedure:

In case you agree to participate in the study, your child will be asked a series of questions related to feeding, observations about the foods your child eats at school, body measurements (weight, height, folds, waist, hip, and neck), physical fitness tests: flexibility, aerobic capacity (the child is asked to walk for 6 minutes, as far as he or she can walk) strength (the child is asked to do horizontal jumps) and a venous blood sample to check glucose levels, and blood lipids. Observations, interviews, and measurements will be conducted by ITESO and UdeG trained staff within the school facilities.

It will take approximately half an hour to ask your child these questions. The body measurements are estimated to take 25 minutes, and the physical fitness test will take approximately 15 minutes. For blood sampling, about 10 ml (equivalent to 2 teaspoons) of blood from an arm vein, under controlled circumstances. The blood collection will be performed by experts in the area, within the school facilities, with new and sterile material and under rigorous quality control. These measurements will be performed on 3 occasions throughout the project (from 2015 to 2018).

Benefits:

The main benefit for you and your child will be to know the child's nutritional and physical status and blood test results free of charge for three years. If you agree to participate, you will be collaborating with ITESO, UdeG, and SEP in a mission to research and find solutions for the promotion of adequate physical activity and healthy eating in schools. This study can help us better understand how to improve the school environment and our children's health in the future.

In addition, we are committed to sending regular reports on your child's nutritional status and overall progress of the study and working throughout the three years to improve children's nutrition and physical activity.

Possible risks:



The study does not pose any risk to your child's health since the amount of blood drawn will be the same as that required for a regular blood test. Drawing the blood sample may cause a burning sensation at the point where the needle is inserted into the skin and may result in a small bruise that disappears within a few days. On rare occasions, it can cause temporary dizziness.

Fitness tests are low impact; however, medical care will be available at all times.

Participation / Voluntary Withdrawal:

Children participating in this study will be those in grades 1-4. Participation in this study is entirely voluntary. You have the right to refuse to participate and to withdraw from the study at any time. Whether or not you participate will not affect your child's benefits from the school or any future services.

You do not give up any of your legal rights by signing this informed consent document.

Cost of Participation:

There will be no cost to you or the school for participating in this study. All measurements, tests, and activities related to the study will be given to you at no cost for the duration of the project.

Confidentiality:

The information that we obtain will be completely confidential and transported directly to the Technological Institute of Higher Studies of the West (ITESO), to Dr. Laura Arellano Gómez's office, and will be for the exclusive use of the researchers participating in this project.

Contacts:

You have the right to receive answers to any questions about the procedures, risks, and benefits related to this project. For this purpose, you may contact **Professor Roberto Paulo Orozco Hernández**, responsible for the project, at **(01 - 33) 36 69 34 34 ext. 3989.**

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Professor Roberto Paulo Orozco Hernández

ITESO Project Coordinator

Parent or Guardian Consent for their Child's Participation
Your signature indicates your agreement for your child to voluntarily participate in this study.
Date:
Month / Day / Year
Name of participant's parent/guardian:
Name of the child participating:
Parent/Guardian's Signature:
Family relationship to the child:



Participatory intervention to improve the nutrition and physical activity of school children in Acatlan de Juarez, Jalisco

Acceptance of the Child to Participate		
(To be obtained orally when the child is interviewed)		
	Date:	
Name of the child:	Month / Day / Year	
The child has received an explanation and has agreed to participate: 1. Yes 2. No		
Witness #1: Family relationship to the child:		
Witness #2: Family relationship to the child:		
Name and signature of researcher obtaining cor	nsent	



<u>LETTER OF CONSENT</u>: Principal's consent for the elementary school to participate in the project:

PARTICIPATORY INTERVENTION TO IMPROVE THE NUTRITION AND PHYSICAL ACTIVITY OF SCHOOL CHILDREN IN ACATLAN DE JUAREZ, JALISCO

Dear Director:

On behalf of the Technological Institute of Higher Studies of the West (ITESO), the University of Guadalajara (UdeG), we request your consent for the educational facility you lead to participate in this study, which has the following objective: To evaluate the functioning and effect of a participatory intervention to improve nutrition and physical activity within the school environment in children aged 6 to 10 years from public elementary schools in Acatlan de Juarez, Jalisco, Mexico.

Procedure:

The project will have a total duration of 3 years (Start 2015, end 2018). Outcome variables will be: change in consumption and availability of food and beverages, time invested in physical activity within the school environment, knowledge and attitudes towards the consumption of healthy food, simple water, and physical activity, as well as the empowerment of community actors involved on their health. On the other hand, it is expected to find modifications in serum lipids and glucose, the prevalence of overweight and obesity, and the physical capacities (resistance, strength, and speed) of children. Finally, it is intended that the present project establishes a background of the need to maintain a health promoter permanently in all basic education schools.

The study will have three moments of evaluation: baseline, intermediate, and final, and an initial evaluation of viability and formative research. The measurement periods will use simple instruments in the school context to obtain information at the school level about the dynamics of food and water consumption within the schools, the dynamics and infrastructure for physical activity, the quality of physical education classes, and food availability.

In each measurement period, anthropometric measurements will also be taken of all elementary school children. Qualitative methodologies will be applied to obtain information on community satisfaction and the benefits and barriers observed.

After each measurement period, a report with the overall results of the school will be provided to the school principal and any members of the school community considered relevant by the principal.

In addition to the procedures described in the previous paragraphs, a random subsample of children in grades 1-4 will be selected and the following additional measurements will be taken to complement the information:

- Household socio-economic characteristics questionnaire.
- Questionnaires (semi-quantitative) of the child's food consumption frequency, applied to his mother.
- Questionnaire and observation of the consumption of school lunch/refreshments applied to the child in school.
- Breakfast questionnaire and observation of school breakfast consumption (if the school counts with the service).
- Blood pressure
- A blood sample to determine glucose and lipid levels
- Evaluation of physical endurance capacities with the application of Eurofit Battery and the realization of endurance and speed tests.
- Twenty-two detailed anthropometric measurements according to ISAK methodology, to



obtain body composition.

Prior to applying the test, the informed consent of the children's parents will be requested. Each test will be realized on a different day during school hours. Each child's results will be compared with the standard parameters, and they will be given to the children's parents confidentially.

In order to achieve a greater approach to the population, qualitative tools will also be implemented, such as non-participating observation, focus groups, and semi-structured interviews, that will aim to generate new strategies suggested by the population, as well as to identify barriers and possible solutions to improve eating habits and encourage physical activity in the community.

Possible risks:

The study does not pose any risk to students' health since the amount of blood drawn will be the same as that required for regular blood testing. Drawing the blood sample may cause a burning sensation at the point where the needle is inserted into the skin and may result in a small bruise that disappears within a few days. On rare occasions, it can cause temporary dizziness. Fitness tests are low impact; however, medical care will be available at all times.

Participation / Voluntary Withdrawal:

Participation in this project is entirely voluntary; however, the permanence of the elementary school is fundamental to obtain reliable results that will allow us to propose actions that will improve the nutrition and physical activity of both this campus and the rest of the country. The school has the right to refuse to participate and to abandon the study at any time.

Cost of Participation:

There will be no cost to any member of the school community for being part of this study. All measurements, tests, and activities related to the study will be provided at no cost to you for the duration of the project. Also, no food or other products will be sold or promoted as part of the project.

Confidentiality:

The information that we obtain will be completely confidential and transported directly to the ITESO or UdeG facilities, under the supervision and analysis of Dr. Laura Arellano Gómez, and will be for the exclusive use of the researchers participating in this project.

Contacts:

You and any member of the school community have the right to receive answers to any questions about the procedures, risks, and benefits related to this project. You may contact Professor Roberto Paulo Orozco Hernández, responsible for this project, at (01 - 33) 36 69 34 34 ext. 3989.

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Professor Roberto Paulo Orozco Hernández

Participatory intervention to improve the nutrition and physical activity of school children in Acatlan de Juarez, Jalisco

Principal's Consent for the Elementary School to Participate in the Project: Participatory Intervention to Improve Nutrition and Physical Activity in School Children in Acatlan de Juarez. Jalisco

<u>Juarez. Jalisco</u>
Your signature indicates your agreement to allow the elementary school you lead to participate in this study voluntarily.
Date:
Month / Day / Year
School Name and code:
Principal's name
Signature of the Director