

PREVENTIVE PROGRAM

Background

A large number of Guatemalans is prone to oral diseases; in most cases, this is due to cultural and economic reasons. For several generations people have neglected oral health and this situation has led to alarming rates of different conditions such as oral cavities and periodontal diseases.

The Government has some dental programs to prevent and cure oral diseases, however, the scope and effectiveness of these programs is not sufficient to meet the nearly 14.7 million inhabitants¹, leaving the vast majority of people without attention.

To change this situation, it is necessary to implement specific actions which would be to great extent, so that the dental attention arrives where the governmental system has failed. These actions should be implemented in short, medium and long term, without the interference of political issues, such as changes of government authorities. We plan to work with our own funds and personnel.

When we talk about prevention it is impossible to separate the concept of education. It has been proven that the programs created for schools, are effective when the teachers are well trained to lecture the students on oral health, and above all, preventive measures including use of Fluoride.

Getting involved to reach this goal is essential for the Oral Health Foundation, which is one of our main axis.

OBJECTIVES

General Objective

Contributing to a better oral health status of Guatemalan children by implementing effective actions to prevent oral diseases, focusing on a large scale and in a systematic way.

Specific Objectives

- Implement oral health education talks to students, teachers and parents of public educational establishments of primary level.
- Implement topical fluoride (Phosphate Fluoride Acidulated at 1.23% or 5% Fluoride Varnish) in students of public educational establishments of primary level.
- Implement sweep Pit and Fissure Sealants (SFF) in children from public educational establishments of primary level.
- Implement surgical or restorative actions in children from public educational establishments of primary level, necessary to treat existing conditions, so that they can prevent further damage.
- Collect statistical data product from clinical activity that can be used to investigate epidemiological and socio-economic phenomena in the communities in which carry out the program.



Goals

- Perform Preventive Program in national primary schools, in coordination with the Ministry of Education.
- To cover 12 national primary schools from rural areas.
- Encompass all students in each school with fluoridation and oral health education.
- Perform as many clinical preventive procedures, restorative and surgical, to the students of the school.
- Provide all students in each school with a brushing kit.
- Perform a statistical analysis that shows the number of patients seen, the amount of oral health education activities carried out, the amount of topical fluoride applications made and the amount of clinical procedures performed and the cost-benefit analysis.
- Follow up the program.



Methodology

The preventive program will be implemented in 12 public elementary schools across the country, moving mobile equipment and clinical staff to different schools in traveling days.

The schools will be selected according to the number of students, their access to dental services and location. Will be contacted the authorities of each school on schedule, and be provided with information about the mission so that they will deliver to the parents the respective informed consent, and agree with the school authorities the location of the mobile clinics inside the educational establishment, as well as aspects related to the activities to be carried out, and the safety of the team.

The program activities will be carried out simultaneously (oral health education talks, topical fluoride applications and clinical procedures) by designated professional for each.

For oral health education activities, a number of talks will be set according to the number of students and classrooms, using audiovisual resources in an estimated of 45 minutes for each activity.

For fluoridation, a dentist will be responsible for coordinating volunteers, teachers and monitors for the activity. A record of the listings pupils covered with topical fluoride applications for subsequent statistical analysis and data presentation will be made.

For clinical activities mobile units and equipment should be installed in a room of the school, dentists are designated specifically in charge of this work, with SFF and other procedures to students from first to sixth year. Track of the number of patients seen and the number of teeth treated for subsequent statistical analysis and data presentation will be made.

Oral Health Foundation will manage the donation of toothpaste, dental floss and toothbrushes, for delivery in schools where it is performed the Preventive Program.

The hours of work will be subject to change depending on rules for each school.

Screening

According to the proposed methodology and assuming a specific pattern for each day, will calculate the following screening that show the social impact that will have the Preventive Program.

Coverage of schools

Number of patients	Number of schools
6000	12

Treatments performed

Number of Sealants throughout the program	36000
Number of TFA throughout the program	6000
Number of Talks throughout the program	72
Number of fillings or extractions throughout the program	12000

Cost - Benefit

Total estimated costs of the Program

- **Total Program Budget:**
\$ 73716
- **Budget Per School:**
\$ 6143

The estimated investment for each patient is \$ 12 and consist of:

- 6 Pit and Fissure Sealants (average)
- 1 Topical Application of Fluoride
- 2 Restoration
- Will receive an educational talk of oral health
- Will receive a brushing kit

The estimated cost of treating a patient according to local market prices is: \$ 170

Estimated prices of treatments by a local private				
Pit and Fissure Sealant	Topical Fluoride Application	Talks about oral health	Filling or extraction	Brushing kit
\$12.82	\$19.23	\$12.82	\$25	\$7

Estimated costs of treatment in the Program				
Pit and Fissure Sealant	Topical Fluoride Application	Talks about oral health	Filling	Brushing kit
\$0.90	\$1.35	\$0.90	\$1.81	\$0.53

* Estimated prices dental treatment in private clinics in Guatemala.

Resources

Human

- Dentists of the Oral Health Foundation
- Volunteer dentists
- Dental student volunteers
- Assistants
- Educational authorities
- Allowances

Equipment

- Mobile dental units
- High and low speed hand pieces
- Compressors
- Dental vacuum
- Wireless Light Curing Lamps
- Explorers, mirrors and dressing pliers
- Dental burs
- Instruments trays
- Autoclave
- Air fans
- Digital camera
- Vehicles
- Laptop
- Projector

Materials

- Pits and fissure sealant
- Etching agent
- Bonding
- Prophy paste

Dental Supplies

- Masks
- Surgical caps
- Dental lens
- Gloves
- Robes
- Saliva ejectors
- Napkins
- Micro applicators

- Prophylaxis cups
- Anesthetic
- Dental napkin holders
- Glutaraldehyde
- Fluoride varnish
- Fluoride gel (Acidulated phosphate fluoride)
- Fluoride trays
- Cotton rolls
- Cotton wool
- Alcohol
- Hydrogen peroxide
- Toothpaste
- Toothbrushes
- Dental floss
- First aid kit
- Dental waste containers

