

# Final Report Comunidad Sonrisas

Community-based oral health program for children in Til Til



Chile, April 2021

# Effects of the Covid Pandemic in Oral Health

The COVID-19 Pandemic has been the most important public health challenge of this century.

The coronavirus forced the public system to prioritize vital health needs, postponing oral health needs, affecting the most vulnerable sectors of the country.





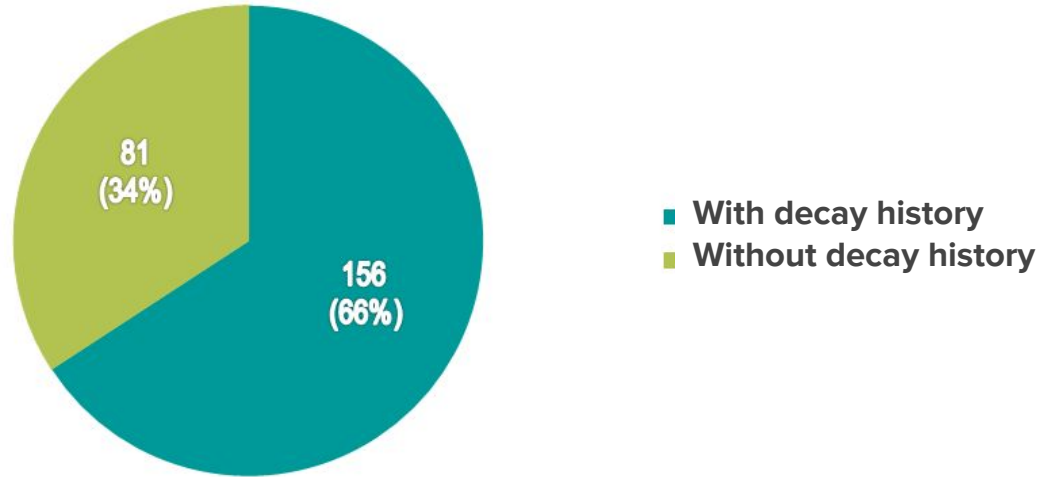
Dylan, Student of Montenegro School Tilttil, 2019.

We know that the consequences of a neglected oral health can be very serious for the future of the children:

- Worse nutrition and sleep quality: less development.
- Lower concentration and school performance.
- Cumulative damage with impact in adult life.

Heilmann A., Tsakos G. & Watt R. (2015)

The experience of **Escuela Sonrisas** in 6 schools during 2019 alerted us of the complex situation and oral health conditions of the children in Tilti:



**Prevalence of Decay**  
*Escuela Sonrisas Tilti, 2019*  
*n = 227*

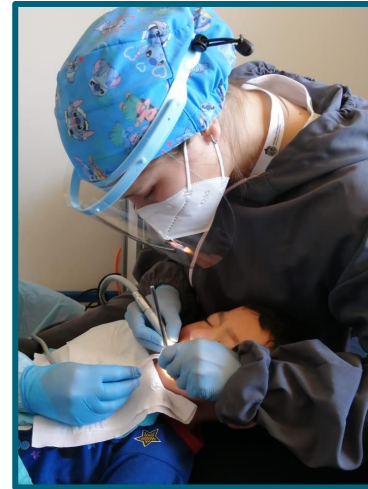


# General Description



# Comunidad Sonrisas

**Project Scope:** implementing a sustainable community-based intervention by generating opportunities of oral health promotion and prevention, while providing comprehensive oral health care for children.



# Collaborative Partners

Key Actors of the Project



# Comunidad Sonrisas

## Direct Beneficiaries:

- 504 children between 1 and 11 years old.

## Intervention Zones:

- 11 localities in Til Til.

Til til Centro, Huertos Familiares (Zona Centro-Sur y Norte), Rungue, Montenegro (Fundo La Estrella), La Cumbre, Caleu: El Llano, La Capilla, Punta Peuco, Santa Matilde, Huechún, Polpaico y Los Lingues.

## Length:

- 4 months



Northern (rural) district of  
the Metropolitan Region

# Til Til, Sociodemographic Context

- 55% of the population lives in urban areas, 45% in rural areas
- Considered a “sacrifice area\*” of the Metropolitan Region (north section)
- High levels of social vulnerability (great impact of social determinants of health)
- Great geographical constraints affects access to basic services (including potable water)
- Divided in 11 localities



\*Sacrifice area due to the environmental impact of minery and other industries



# Geography of Til Til



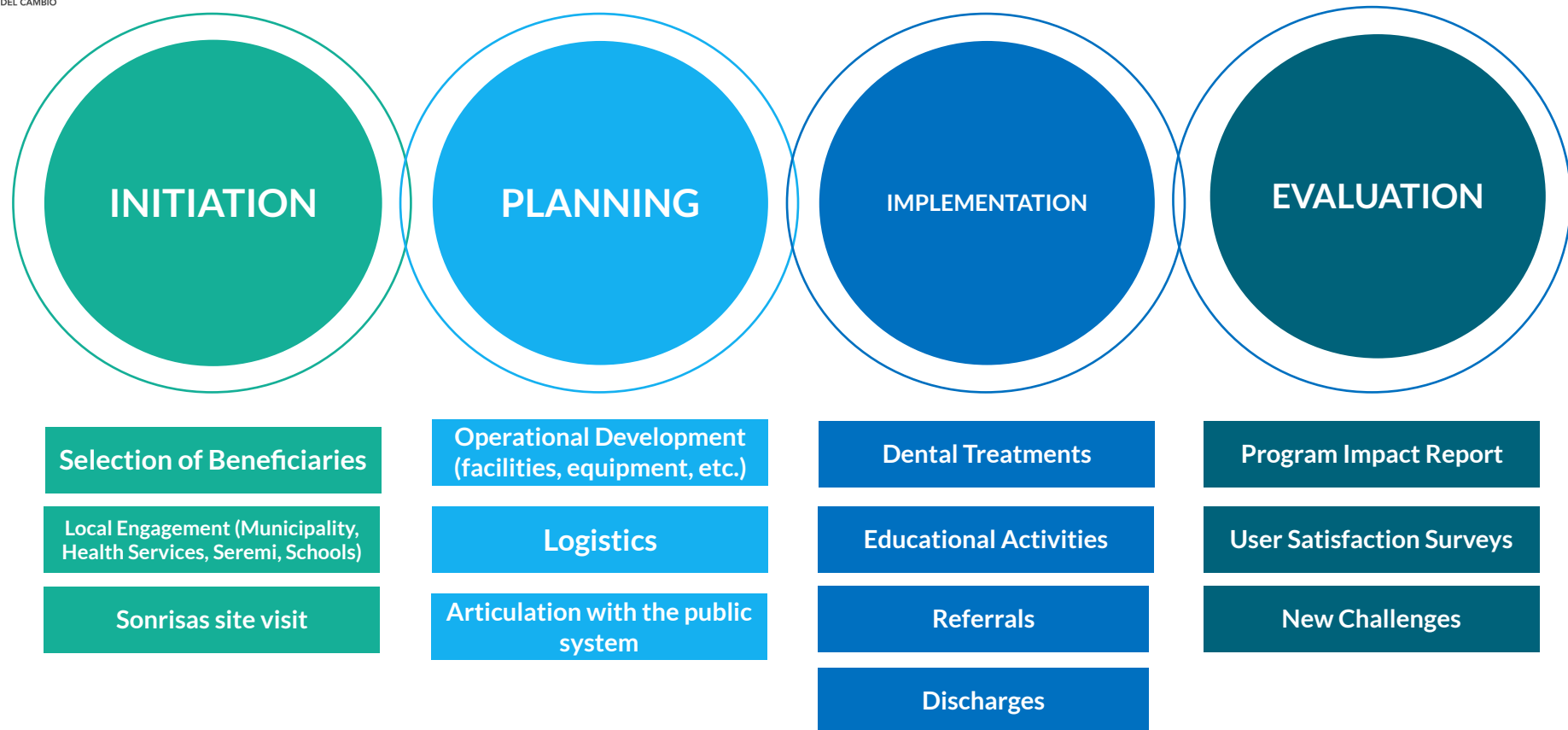
653 Km2 of desertic & dry climate, with summer temperatures over 35° Celsius

# Implementation





# Phases of the Project



# Sonrisas Team



- Dr. Valentina Dominguez, DDS, Dental Director of Tilttil health center.s
- Javiera Tapia, Social worker, Project Manager of Fundación Sonrisas
- Dr. Constanza Haleby, DDS, Dental Coordinator of Fundación Sonrisas
- Catalina Gonzalez, Nutritionist, Director of Huertos Familiares Cesfam in Tilttil
- Dr. Isidora Valdivieso, DDS, Dental Coordinator of Fundación Sonrisas



# Territorial Strategy

- Preliminar planning and coordination with local healthcare teams and social development corporation of Tiltit.
- Coordination with social leaders, kindergarten / school directors and parents.
- Recognition and diagnosis of available infrastructure and oral health local needs
- Preparation of a database and strategy for the appointments scheduling

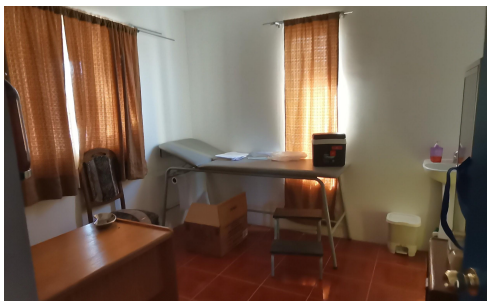
# Primary Healthcare Services in Til Til

- 5** Communitary Hospital of Til Til
- 27** Cesfam (Health Family Center) in Huertos Familiares
- 28** Cosam (Mental Health Center) in Til Til
- 55** Posta (rural health center) Caleu
- 56** Posta Montenegro
- 57** Posta Rungue
- 58** Posta Polpaico





# Primary Healthcare Services in Til Til



Great variation in infrastructure between Cesfam and Rural Postas; from containers with only tables and chairs available for health check-ups and screenings to well constructed houses that includes a dental chair

## Implementation by locality:



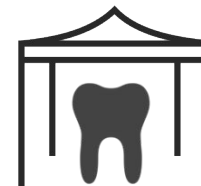
Monday to Friday with  
2 or 3 portable dental  
units



30 minutes sessions



140 sessions on  
average per week



Health promotion station to  
provide educational tools to  
children and parents

# Considerations

## Protocolos

- COVID prevention
- (+) COVID cases management
- Sterilization
- Cut and puncture wounds management
- Residual materials management
- Hep B vaccines registration




Manejo inmediato de accidentes corporales de alto riesgo durante

1. Aviso inmediato al profesor
2. Recibir los primeros auxilios
3. Contactarse con la Enfermería las 24 horas del día.
4. Evaluar en el sitio del accidente

**A) FUENTE CONOCIDA**  
Inmediatamente ocurrir a Urgencia del Hospital Clínico fuente (VIH, Virus Hepatitis B, etc.)

**B) FUENTE DESCONOCIDA**  
Inmediatamente ocurrir a Urgencia del Hospital Clínico

\* Tanto si es fuente conocida como si no, la Enfermera de Bioseguridad debe ser notificada.

	Protocolo para la atención odontológica en "Operativos de Salud Bucal Infantil Títil 2020"	Código: COV_AGO_2020 Nº Edición: 1.0 Nº páginas: 22 Vigencia: indefinida
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### Protocolo para la atención odontológica en "Operativos de Salud Bucal Infantil Títil 2020" en tiempos de COVID-19

Elaborado por	Revisado por	Autorizado por
Dra. Macarena Sierra R. Coordinadora de Proyectos Odontológicos Agosto 2020	Dra. Karla Moscoso Directora Fundación Sonrisas Agosto 2020	Dra. Magdalena Concha C. Directora Odontológica Agosto 2020

Fundación Sonrisas – Agosto 2020



# Activities



## Promotion and education

- Dietary counselling
- Toothbrushing techniques
- Importance of fluoride toothpaste
- Oral health kit
- Educational materials for children and families
- Online sessions with teachers
- Digital content

+



## Dental Treatments

- Emergency management
- Fluoride and sealants
- ART
- Restorations (Composite / I.G.)
- Dental extractions
- Prophylaxis and cleanings





# Risk Analysis

Main difficulties that arose in the implementation of the project:

- Lack of updated children contact lists
- Non-attendance
- Language difficulties with Haitians families
- Climate and distance
- Covid pandemic



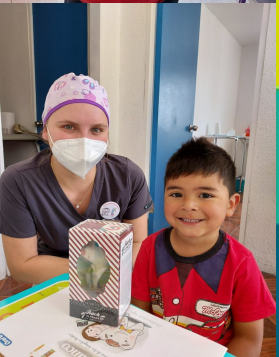


# OPERATIVO SALUD BUCAL INFANTIL



TILTIL

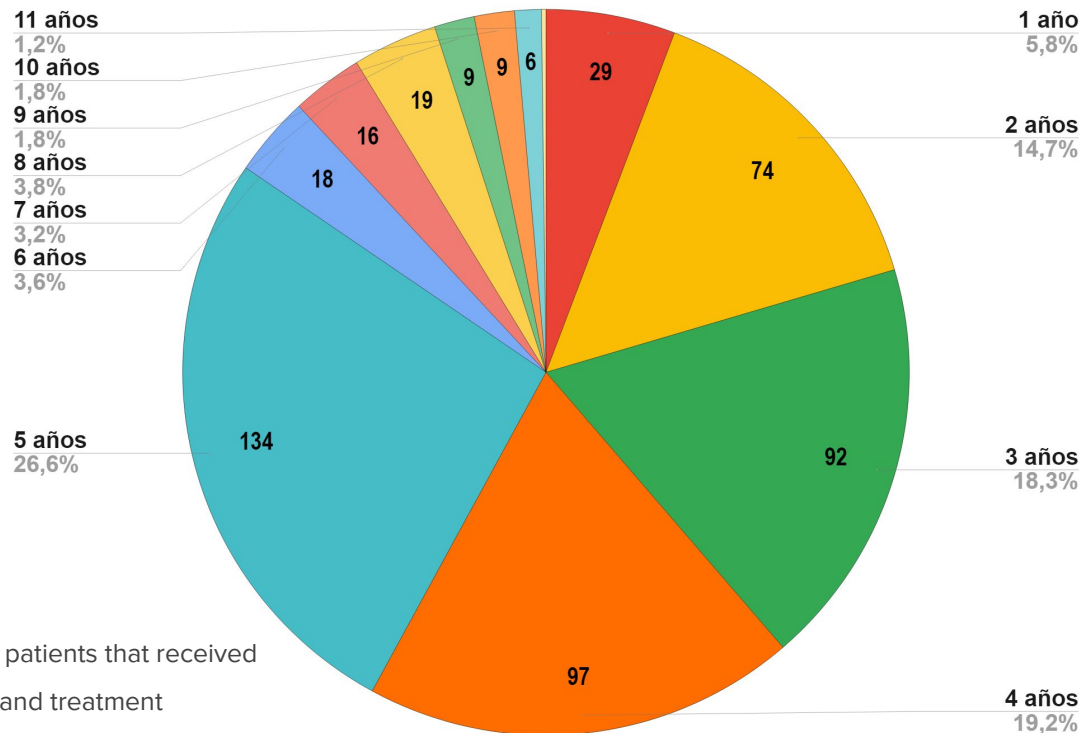
# Results



# Summary of Actividades

- 504** Children treated\*
- 410** Comprehensive treatments \*\*
- 2511** Dental Procedures
- 64** Referrals to dental specialist
- 14** Volunteer DDS
- 22** Local primary health providers involved
- 7** Dental students rotations
- 504** Parents involved
- 48** Teachers

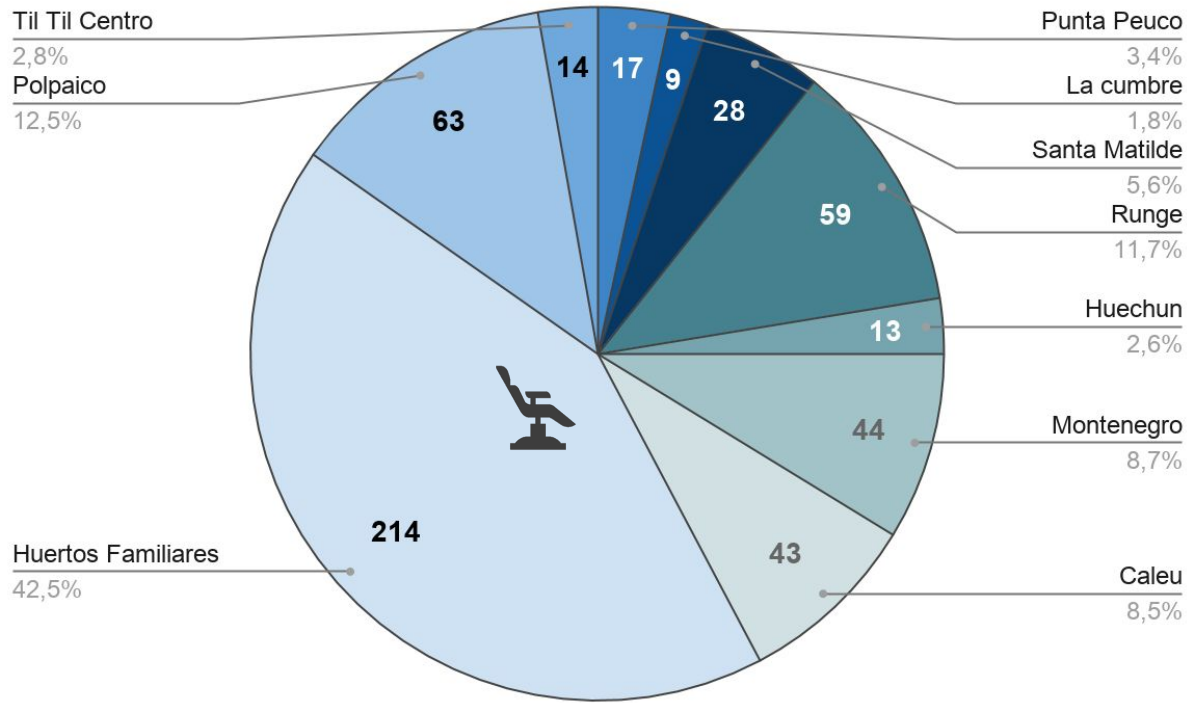
## Distribution of treatments by Age



\*Children treated are all the patients that received a diagnosis, treatment plan and treatment sessions.

**504** children treated

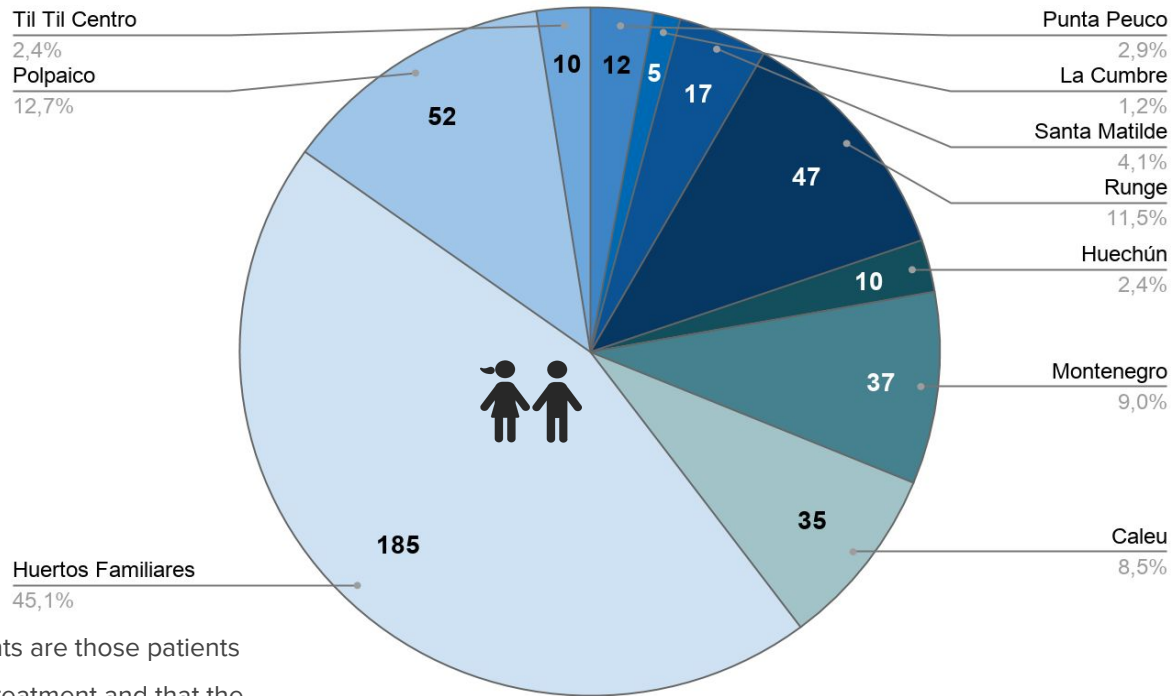
# Distribution of treatments by Locality



**504** children treated



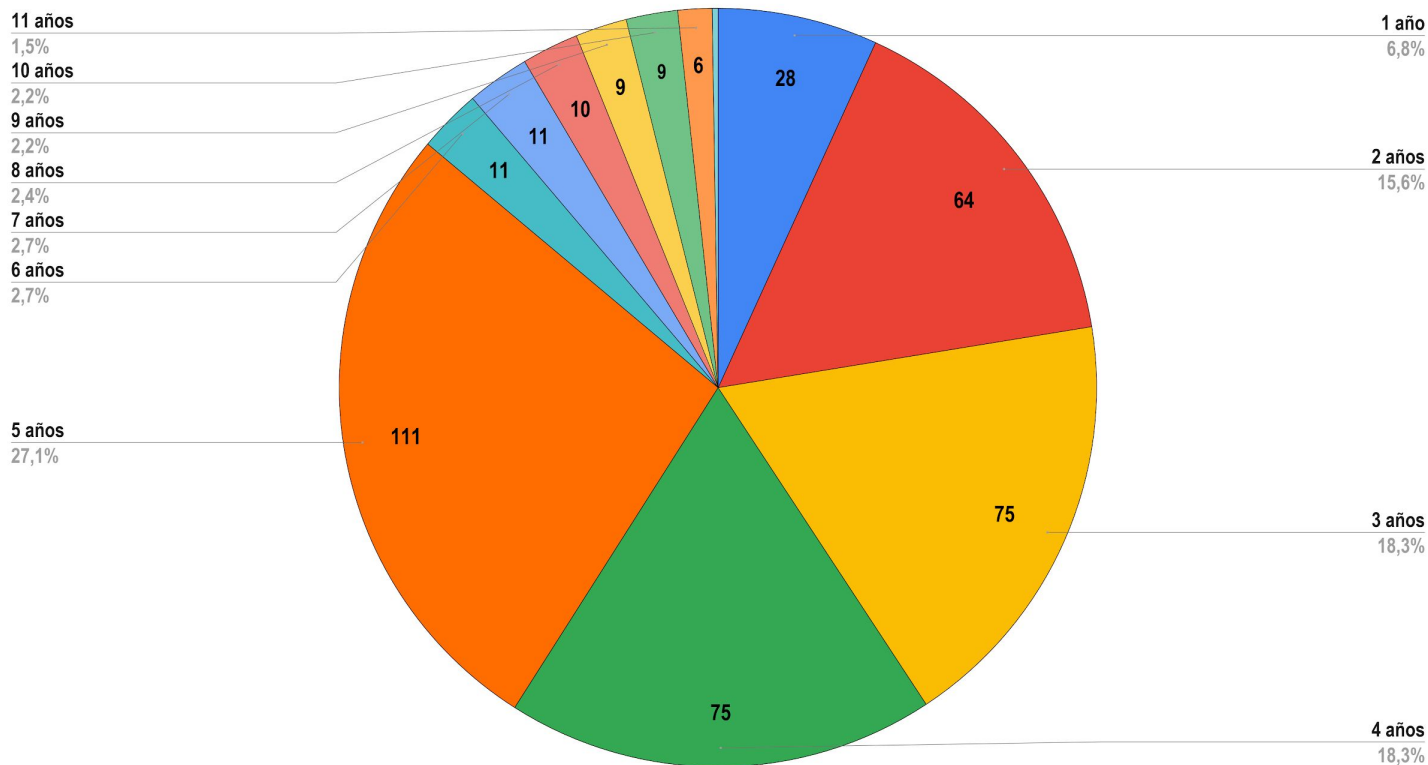
## Distribution of comprehensive treatments\* by Locality



\*\*Comprehensive treatments are those patients that fully completed their treatment and that the final DMFT Index in the D component was 0. (cavity free)

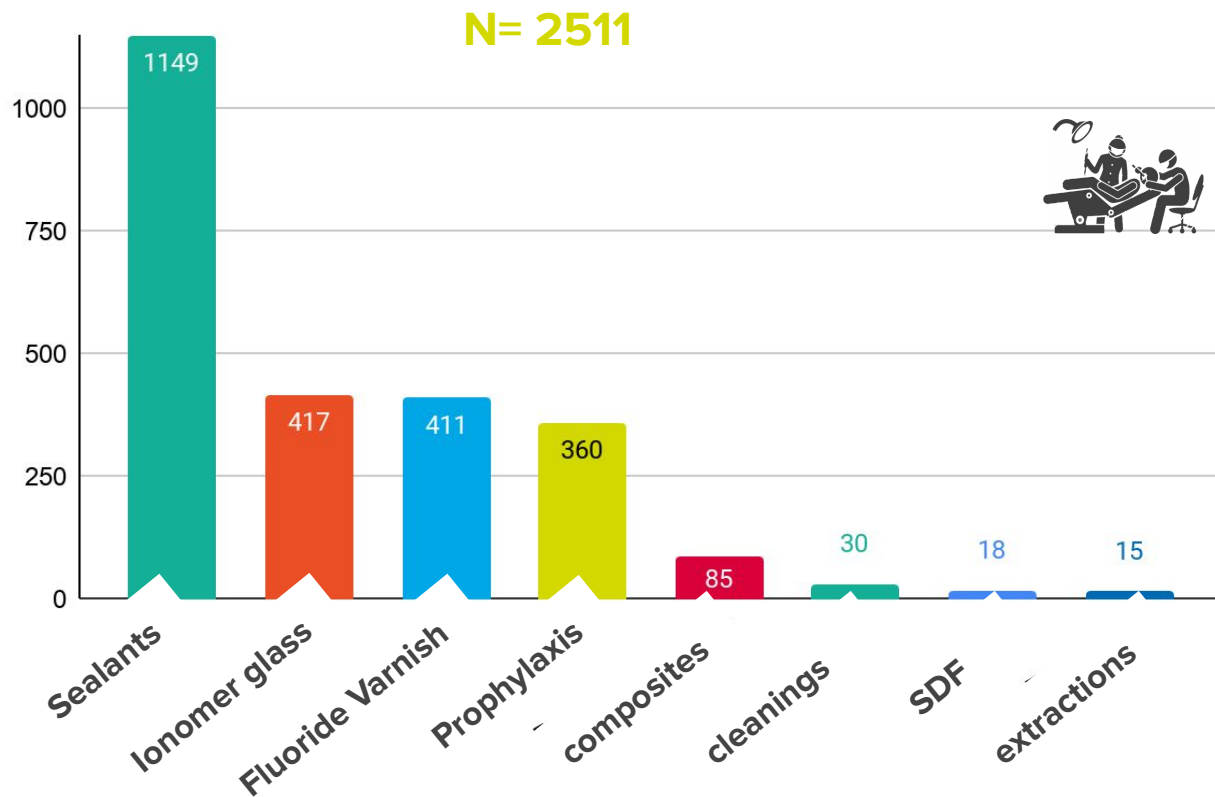
**N= 410** Comprehensive Treatments

## Distribution of comprehensive treatments by Age



**N= 410** Comprehensive Treatments

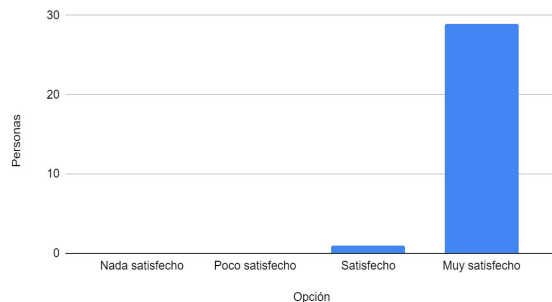
# Distribution of Dental Procedures



# Satisfaction Survey

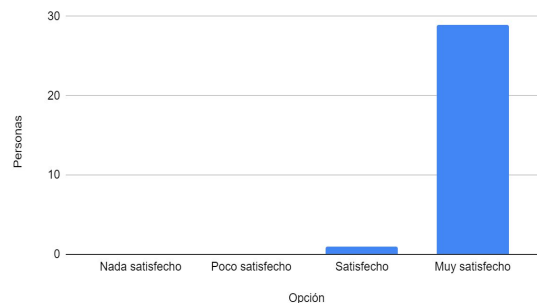
## • Dental Care

Satisfacción sobre la atención recibida por parte de los dentistas y equipo de Fundación Sonrisas



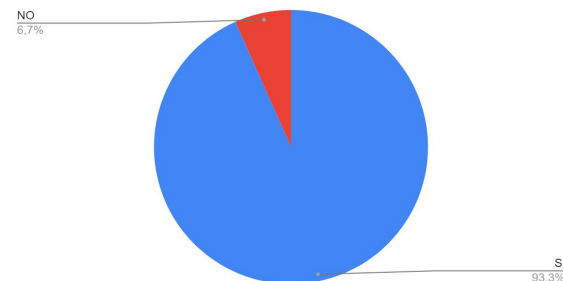
## • Dental Team

Satisfacción sobre el tratamiento dental realizado en el operativo de Salud Bucal Infantil



## • Education

¿Aprendió nuevos contenidos sobre el cuidado de la salud bucal familiar?



## Satisfaction Survey with the program

- Participation of 30 families
- **Dental Care:** 100% declared very satisfied or satisfied with the care received by the team
- **Dental Team:** 100% declared to be very satisfied or satisfied with the dental treatment carried out in the project
- **Education:** 93,3% declared having learned new content on oral health

# Testimonies

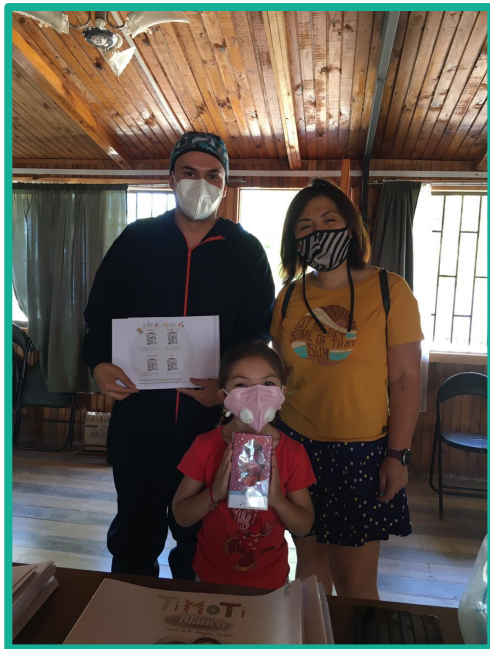


*"On behalf of Huertos Familiares CESFAM, we want to thank for this collaborative work led by Sonrisas. The intervention carried out for the children of Til til is an important baseline for the sustainability of the treatments that will be covered by our Primary Care team"*  
Catalina González, Director of Huertos Familiares CESFAM



*"It was an excellent project, a pleasant environment and what better than to practise social dentistry in the places where we are needed."*  
Arturo Henríquez, Volunteer DDS,  
Sonrisas Team

# Testimonies



*"We came from far away and that is why I want to thank what you've done for my daughter. Now she is healthy and is an opportunity I never had"*

Parent of Fundo La Estrella Sector



*"I gave up my pacifier in December because I made a deal with the dentists. Also, I am very happy with all my presents, especially my "ratoncito"."*

Children of Santa Matilde Locality

# Damage Assessment

1. Decay History
2. DMFT (coed / CEOP) Index
3. Decay Risk Assessment





# Decay History



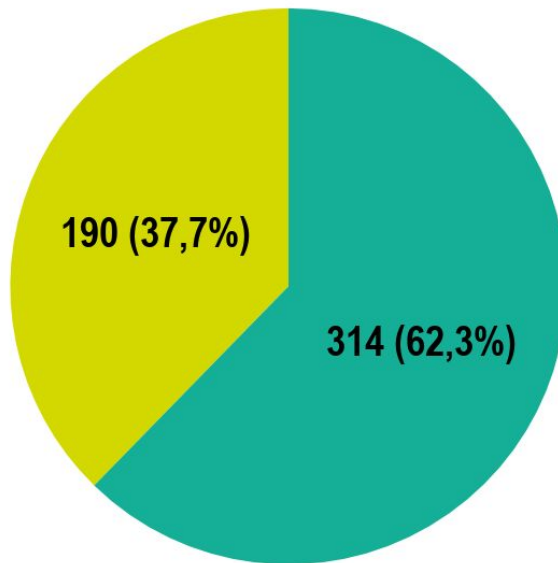
## Without cavities history

Prevalence of patients with absence of decayed, filled and / or extracted teeth due to dental cavities. In addition, the absence of incipient lesions was considered.



## With cavities history

Prevalence of patients with the presence of decayed, filled and / or extracted teeth due to dental caries. In addition, the presence of incipient lesions was considered.



With decay history

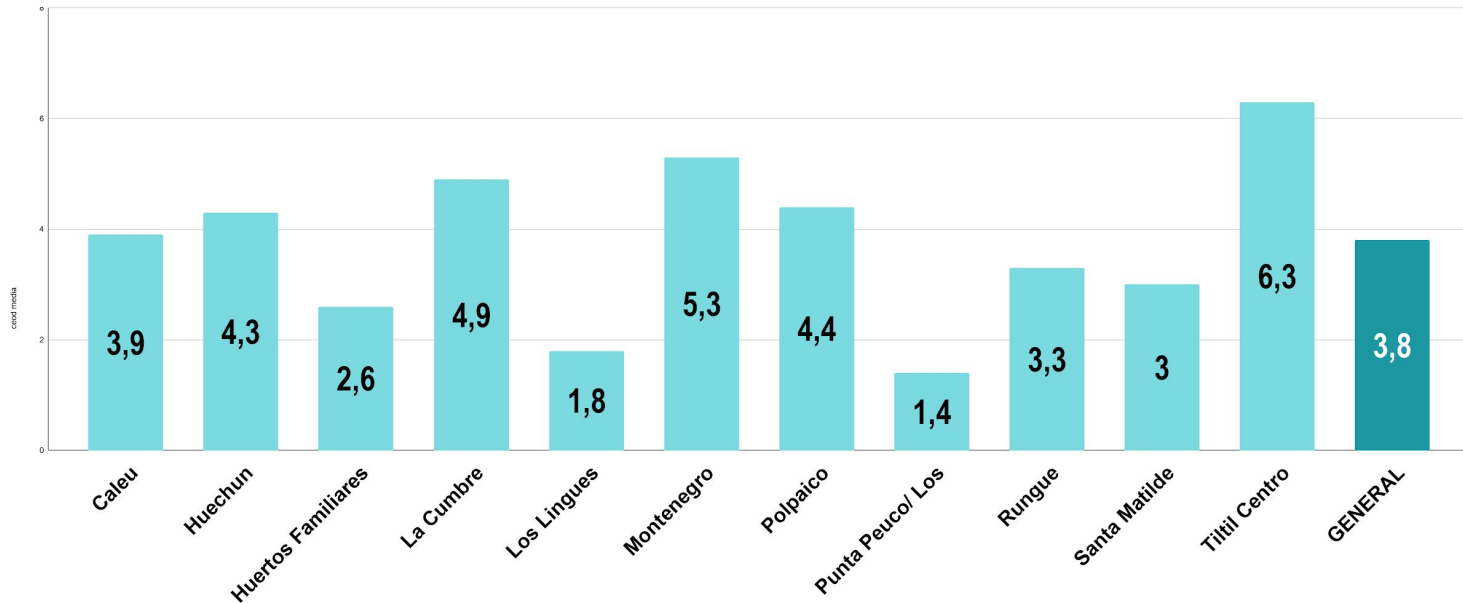


Without decay history

*N = 504.*

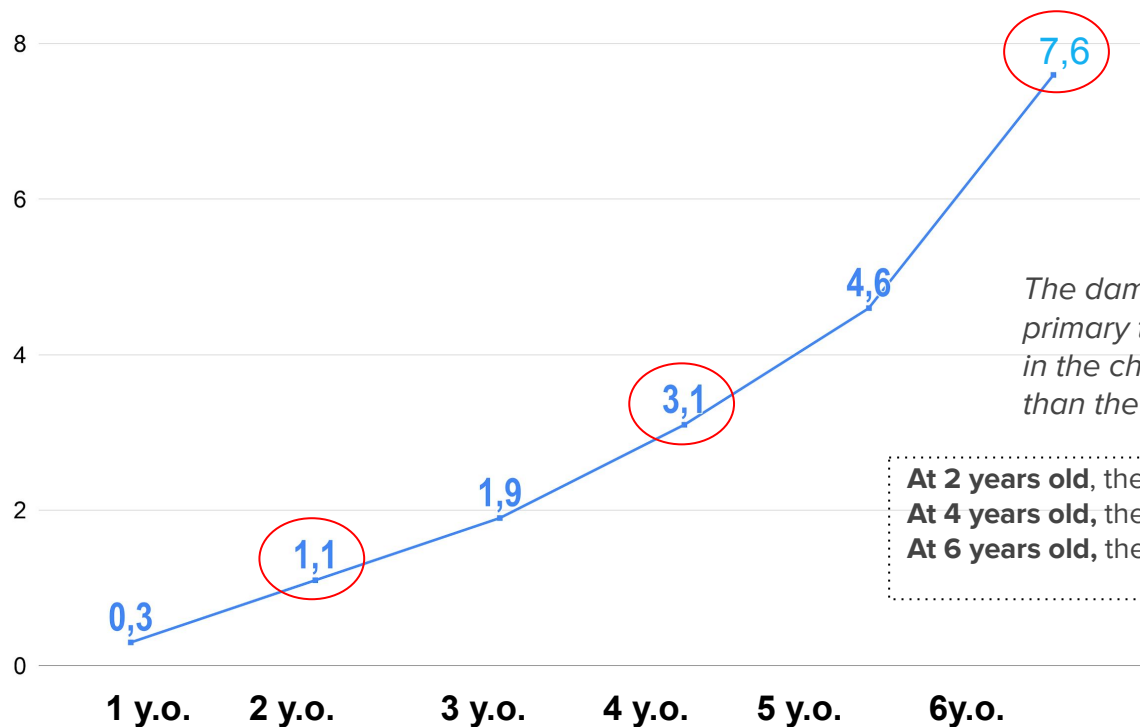
*Prevalence of decay in Children of Tiltil (between 1 to 11 y.o.)*

# Distribution of DFMT Index by locality



Comunidad Sonrisas, Tilti, 2020-2021. N = 504.  
DMFT Index average in children between 1 to 11 y.o. by locality

# Distribution of DFMT Index by age



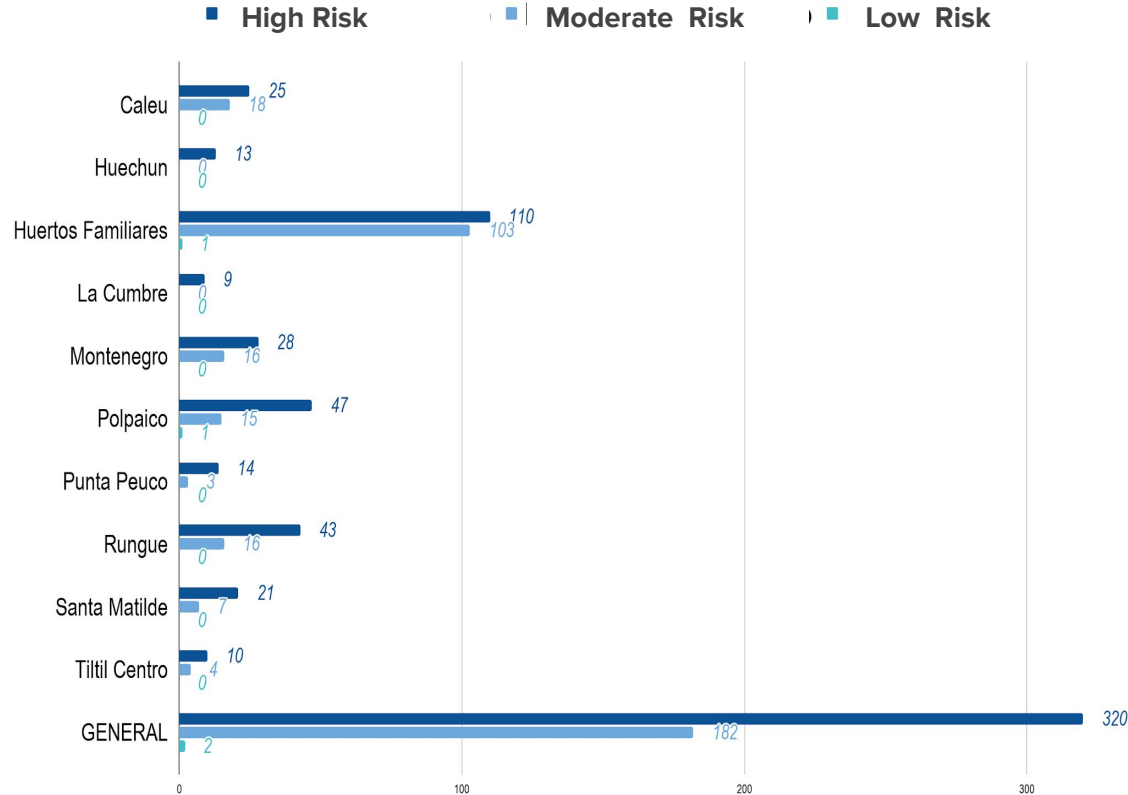
*The damage and severity of tooth decay in primary teeth **increases** exponentially with age in the children of Tilti, in addition, it's higher than the national average.*

**At 2 years old**, the national average of the DMFT index is **0.5**  
**At 4 years old**, the national average of the DMFT index is **2.3**  
**At 6 years old**, the national average DMFT index is **3.7**

Comunidad Sonrisas, Tilti, 2020-2021. N = 504.

DMFT Index average in children between 1 to 6 y.o. compare by national averages

# Decay Risk Assessment



Comunidad Sonrisas, Tilti, 2020-2021. N = 504.  
Prevalence of Decay Risk in children between 1 to 11 y.o. in Tilti.

**Probability** of a person to develop new decay lesions or that pre-existing lesions advance and cause damage to dental tissues based on risk factors associated with caries disease.

**Examples:** Oral hygiene, frequency and amount of sugary food intake, exposure to fluorides, Social Economic condition, previous experience of decay, etc.



“One Smile changes a life, many change a country”



# Final Report

# Comunidad Sonrisas

Community-based oral health program for children in Til Til



Chile, April 2021