

# Current Status and Strategies to Improve Oral Health Program Infrastructure and Capacity in Puerto Rico: A Needs Assessment Project



Report produced by the Association of State and Territorial Dental Directors (ASTDD) in collaboration with the Puerto Rico Strategy 3 Workgroup



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## Table of Contents

I.	Overview of the Project .....	pgs. 2-
II.	Overview of Puerto Rico.....	pgs. 7-20
III.	The Oral Health Environment in Puerto Rico: Findings and Opportunities from the Needs Assessment.....	pgs. 21-38

# I. Overview of the Project



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*Puerto Rico's Health Department Representatives on  
the Strategy 3 Core Planning Committee and ASTDD  
Caribbean Consultant*

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## Background

The Association of State and Territorial Dental Directors (ASTDD) successfully submitted an application to the CDC in June 2018 in response to CDC NOFO DP18-1811 *Partner Actions to Improve Oral Health* for a five-year CDC Cooperative Agreement with the Division of Oral Health (DOH). ASTDD is a national non-profit organization representing staff of state public health agency programs for oral health and open to others interested in state oral health and dental public health. Organized in 1948, it is one of 21 affiliates of the Association of State and Territorial Health Officials (ASTHO). ASTDD's vision is "A strong and effective governmental oral health presence in states and territories to assure optimal oral health." Its Mission is to provide leadership to:

- promote and support a governmental oral health presence in each state and territory,
- increase awareness of oral health as an important and integral part of overall health,
- address oral health equity,
- promote evidence-based oral health policies and practices, and
- assist in the development of initiatives to prevent and control oral diseases.

Much of ASTDD's work is accomplished through committees, workgroups and consultants in partnership with organizations and federal agencies.

ASTDD funding from CDC is for Component 1 of the NOFO that focuses on three strategies: 1) providing technical assistance and capacity building resources for states primarily around oral health surveillance, community water fluoridation, school-based dental sealant programs and evaluation; 2) conducting state oral health program infrastructure and capacity assessments, primarily through the State Synopses; and 3) conducting assessments and providing technical assistance to U.S. territorial oral health programs primarily in Year One (9/1/18-8/31/19), with permission to use some additional funding for follow-up in subsequent years. The Objective for Strategy 3 is "Assess and report on oral health program infrastructure and capacity, identifying strengths, gaps and needs for the US Affiliated Pacific Islands and the Caribbean islands of Puerto Rico and the US Virgin Islands." This report focuses solely on the Strategy 3 needs assessment for the Commonwealth of Puerto Rico.

ASTDD provided coordination and technical expertise for Strategy 3 to Puerto Rico primarily through the following individuals:

- Magda A. de la Torre, RDH, MPH, ASTDD Caribbean Consultant, Dental School Faculty and former Region X11 Head Start Oral Health Consultant
- Reg Louie, DDS, MPH, Territorial Coordinator, ASTDD public health consultant and former USPHS officer who oversaw Region IX family health services programs, including those federal MCH Title V programs in the USAPI

- Beverly Isman, RDH, MPH, ELS, ASTDD Dental Public Health Consultant and a former state dental director, dental school faculty and Indian Health Service Regional Prevention Coordinator.

### **Approaches and Methods**

Major activities planned to accomplish Strategy 3 included:

- Identify and engage key stakeholders and subject matter experts to plan and conduct territorial program assessment activities
- Identify existing assessment instruments and other resources to assess territorial oral health programs and provide technical assistance
- Assess, identify, and summarize territorial oral health program infrastructure and capacity needs and gaps
- Develop and provide technical assistance and capacity building resources for territories to plan for essential components of oral health programs.

Numerous existing reports from HRSA, ASTHO, NACDD and other groups were reviewed for information that would inform the needs assessment. Previous reports completed by Puerto Rico related to federal grants to incorporate oral health programs were reviewed. Individuals from those groups along with faculty from the University of Puerto Rico Dental School also provided information. Magda de la Torre, ASTDD Caribbean Consultant, briefed and solicited support for the Strategy 3 project from Puerto Rico's Health Department, Director of Tobacco Control and Oral Health Division, Chronic Disease Control and Prevention Division, and Puerto Rico's Dental Officer.

ASTDD decided to use an ethnographic approach for the oral health needs assessment, which would be structured around perceptions of their needs and cultural influences and highlight issues using local examples. ASTDD would not impose outside methodologies but rather would work within the current oral health and public health ecologies in Puerto Rico to document findings and recommendations that would be appropriate, relevant, and culturally/socially consistent.

In collaboration with the Department of Health (DOH) partners, key oral health advocates were identified to be the essential individuals in planning for and implementing the Strategy 3 assessment efforts. ASTDD established distance communications via email and video conferencing links via Zoom. Several virtual meetings via Zoom were conducted prior to and after the face-to-face Strategy 3 meeting. ASTDD consultants developed assessment tools and table templates to collect information, i.e., *Priority Oral Health Topics* and *Components and Characteristics of the Oral Health Environment*. See more details in Section III.

ASTDD and the DOH partners planned and convened a Strategy 3 Workgroup meeting in San Juan, Puerto Rico on Friday, March 29, 2019. The meeting participants included representatives from not-for-profit entities, academia, national organizations, local professional organizations, health department, and federally qualified health centers. Attendees at the face-to face meeting included:

<b>Name</b>	<b>Entity</b>	<b>Position</b>
Roserin Calderin	Sonrisas Sobre Ruedas (Smiles on Wheels)	Registered Dental Assistant
Alexandra Corde	Asociacion de Salud Primaria de Puerto Rico (ASPPR) Primary Health Association of Puerto Rico	Specialist
Elaine Pagan	Department of Health, Puerto Rico University of Puerto Rico Programa de Salud Oral (Oral Health Program)	Puerto Rico Dental Officer/Professor at Univ of Puerto Rico
John R. Adames	Department of Health, Puerto Rico Programa de Geriatria (Geriatrics Program)	Program Coordinator
Antonio L. Cases	Department of Health, Puerto Rico Division de Tabaco y Salud Oral (Division of Tobacco and Oral Health); Division de Control y Prevencion de Enfermedades Cronicas (Division of Control and Prevention of Chronic Diseases)	Division Director
Cindy Calderon	Capitulo Puerto Rico- Academia Americana de Pediatria (PRAAP) American Academy of Pediatrics- Puerto Rico Chapter	President, PRAAP
Ari Kresch	Sonrisas Sobre Ruedas (Smiles on Wheels)	CEO
Miguel Alvarado	Oficina Central para Asuntos del SIDA y Enfermedades Transmisibles (OCASET) Puerto Rico Department of Health, AIDS, and Communicable Disease	Dental Director
Marcos Felici	Department of Health, Puerto Rico	Biostatistician
Magda de la Torre	Association of State and Territorial Dental Directors (ASTDD)	Caribbean Consultant

The objectives, activities and intended outcomes of the Strategy 3 Workgroup meeting were that the participants would:

- Present descriptions of their current programs and existing data, e.g., oral health status, workforce, support and funding, capacities/capabilities, and partnerships (public health, MCH, WIC, NCD, CHCs and Education/Head Start);
- Develop a common understanding of the components of the oral health infrastructure needs assessments in Puerto Rico;

- Discuss best approaches to promote support for and participation in implementing the oral health infrastructure needs assessment;
- Develop a plan to implement an oral health infrastructure needs assessment in Puerto Rico through asking key questions, collecting and sharing data, including identification of relevant partners;
- Decide on an oral health surveillance plan for Puerto Rico;
- Have a clearer understanding of the roles, responsibilities and expectations of the ASTDD Strategy 3 project;
- Identify a key oral health contact person for Puerto Rico.

In addition, it was intended that the meeting participants would form the core of a local oral health assessment Work Group. Participants decided during this meeting that they would plan for and initiate the oral health needs assessment as a group with input from all attendees. They would have the opportunity to take the forms back to their respective organizations and contribute any additional information.

Subsequently, the Workgroup completed a draft of the *Characteristics of the Oral Health Environment* table. Magda de la Torre provided comments on the draft and follow-up iterations were completed. This information formed the basis of the oral health content of the needs assessment and can be viewed in Section III.

Magda de la Torre compiled and summarized the information into a draft report that was sent for review and editing to the other ASTDD consultants and then to the core planning committee for review, comments, additions and corrections. A revised draft final Strategy 3 Report was sent to representatives of key national organizations and federal agency partners for additional review and comment (see list of those who provided feedback earlier in this report) prior to submission to the CDC Division of Oral Health.

To promote awareness of oral health in the U.S. territories, ASTDD planned and presented a concurrent panel session entitled *Forming Partnerships to Overcome Challenges and Barriers in Promoting Oral Health: United States Territorial Oral Health Programs* at the National Oral Health Conference in April 2019 in Memphis. The panel featured speakers from the Commonwealth of the Northern Mariana Islands, Republic of Palau and Puerto Rico, all of whom were active contributors to the Strategy 3 project.



## II. Overview of Puerto Rico



### **Overview of Puerto Rico** (mostly excerpted from [Puerto Rico 2020, HRSA, MCHB](#))

The Commonwealth of Puerto Rico (PR) is a territory of the US, located in the most eastern area of the Greater Antilles in the Caribbean. Although usually referred to as an island, it is an archipelago formed by the main island and 143 small islands, islets and cays encompassing an area of about 3,500 square miles. Vieques and Culebra are offshore municipalities whose residents travel to the main island in small planes and/or ferry for doctor appointments, work, school, and grocery shopping when supplies on their home islands run low.

PR is divided into 78 jurisdictions (municipalities) each headed by a mayor. Every four years, a governor, 28 senators, and 51 House members are elected to serve in the PR government. A non-voting delegate to the US House of Representatives is also elected. Puerto Ricans are US citizens, serve in the US military, and contribute to Social Security and Medicare. However, since they do not pay federal income taxes, they are not eligible to receive the Earned Income Tax Credit that gives refunds to low-income workers. PR residents do qualify for the Child Tax Credit but only if they have three or more children, compared to the states where working families with one or more children are eligible.



The governmental structure has three major branches: executive (Central government), legislative and judicial. Each major governmental agency has a central office and regional offices distributed across Puerto Rico.

## **Population**

The US Census Bureau 2019 estimate places the population at about 3.2 million with about 52% being female; median age was about 34. Approximately 11,000 residents live on Vieques and Culebra. The population in Puerto Rico fell from 3.7 million in 2010, a decrease of 14%, according to an analysis of the PR Institute of Statistics. Two main factors are linked with population decline: 1) declining natality and fecundity rates, and 2) the migration of people to the US mainland in search of better job opportunities and living conditions. From 2005 to 2016 about 525,769 people left Puerto Rico, equivalent to 14% of its population. This trend continued, with 69,343 people migrating between July 2016 and July 2017. The migration from Puerto Rico to the mainland intensified after Hurricane María, with approximately 130,000 people leaving the island between 2017 and 2018, according to Census estimates.

The Maternal, Child and Adolescent (MCA) population constituted 45% of the total 3.3 million population in 2017. The MCA population composition was as follows: 0.8% infants; 8.9% children 1-9 years of age; 12.6% adolescents aged 10-19 (6.5% males and 6.2% females) and 19.8% reproductive age women between the ages 20-49. In 2019 21% of the population was more than 65 years old.

The population is mainly Spanish speaking where most residents identify as Latinos 98.7% followed by other Hispanic ethnic groups such as Dominicans and Cubans, who share certain sociocultural characteristics with Puerto Ricans. In PR 65.9% of people identified themselves as white, 11.7% as black, and 5.3% as two or more races. (US Census 2020)

It must be noted that race is a historically and culturally grounded concept that varies from one society to another. Race taxonomies in Puerto Rico are constructed on the basis of phenotype traits such as texture of hair, skin tone, and lip and mouth shape and intermediate categories exist between white and black that are not represented in the US Census. Some examples are: “indio” (literally Indian, light brown and brown skinned with straight hair), “jabao” (fair skinned with kinky hair), and “trigueño” (light to dark brown skinned). According to Puerto Rico cultural standards, a person is white if he/she has light skin color (fair and light brown) and straight and/or curly hair, regardless of ancestry. People in Puerto Rico may opt to report their race as white (despite skin tone) due to an unstated contempt for everything associated with being dark or black skinned. For example, in Puerto Rico people make a distinction between “bad hair” (kinky hair linked to being black) and “good hair” (straight hair linked to white and Indio). Although more recent generations are identifying themselves as black, the euphemism “de

color’’ (literally of color) is commonly used as the word black is seldom used as a direct term of reference. Underrepresentation of some groups is seen in the main media outlets and high-status positions in corporations and government.

## **Education**

For 2019 the PRCS reported that people 25 years and older with less than a ninth-grade education was 15.3 % and those with a high school diploma was 27.9%. Of those 25 years and older with post-secondary education, 22.8% had some college or an associate degree, 18.5% had a bachelor’s degree, and 7.4% held a graduate or professional degree. The literacy rate is more than 90%.

Student enrollment in the public system decreased greatly (41%) from 544,076 in 2006 to 319,422 in 2017, leading to the closing of some public schools. Between 2006 and 2017 a total of 243 public schools were closed. In the 2018-2019 academic year, 265 (24%) public schools closed while 855 remained open. According to the report “Population Decline and School Closure in Puerto Rico” (Center for Puerto Rico Studies, May 2019), 65% of public schools in the rural areas closed compared to 35% in the urban areas, making rural areas the most impacted by the closures.

## **Socioeconomic Conditions**

In the last decade, Puerto Rico has experienced a reduction in employment in both the private and public sectors. Between 2006 and 2016 employment fell by 28.6% according to the Bureau of Labor Statistics (BLS). Concurrently, the labor force participation rate declined from 47% in 2007 to 41.6% in 2017. Lack of employment is accompanied by income levels that in Puerto Rico are still far behind the mainland US. The per capita income for PR was \$12,279 compared with \$32,397 for the mainland US. The median household income was \$19,343, less than half of Mississippi (\$43,529), the state with the lowest US median household income. There is also an alarming number of families facing the possibility of losing their homes. According to the non-profit organization “Ayuda Legal de Puerto Rico” (Legal Help of Puerto Rico) more than 250,000 homes are at risk of foreclosure. A problem with being at risk of foreclosure is that people tend to face the process alone due to inadequate orientation from banks, lack of education on their rights, and insufficient family economic resources for legal representation.

Poverty is a significant problem in Puerto Rico affecting women, children and families. In 2019, the poverty rate in Puerto Rico (44.1%) was higher than the U.S. average (10.7%) and higher than the poverty rate in Mississippi (20.3%). In 2017, 58.7% of children under 18 years of age were living in poverty, mostly in families headed by a female with no husband present, while the

percent below poverty level in married-couple families with children was 28.1%. High poverty rates and low-income levels leads families to rely on public assistance programs for survival. For 2019 PRCS reported that 40.1% of households in Puerto Rico received nutritional assistance (food stamps) benefits compared to 11.7% in US states.

In many municipalities, mass public transportation is unavailable, and people rely on private transportation services (12 passenger vehicles) called “carros públicos” (public cars) that may not be available after 2 PM or earlier. Those who own cars may have to drive long distances to/from their homes, work, educational classes or to receive services. To cover gaps in transport, some municipalities provide transportation, mainly to the Greater Metropolitan Area to people in need of specialized health services. While mass transportation in San Juan municipality, the capital, is available, there are limitations; waiting time for some routes can be one to two hours. The Urban Train only covers San Juan and Bayamón municipalities and lacks sufficient connecting buses to and from its 16 stations. On Vieques and Culebra, problems with the ferry's departure and arrival schedules, boat maintenance and accessibility caused scheduling and trip capacity disruptions of both passengers and cargo and led to discrepancies in gas and food distribution.

Like families, the Puerto Rico government has been experiencing severe economic difficulties for almost a decade: a public debt of more than \$70 billion, revenue loss, high Government Health Plans (GHP) expenditures, depletion of pension funds, and insufficient liquidity to operate and meets its obligations. To face the crisis, the PR government has taken measures to reduce costs and increase revenues over the past years. Some of the measures include budget cuts to government agencies, school closings, reduction in subsidies to municipalities and Non-Governmental Organizations (NGO's), and tax increases. Measures related to government employees include public worker lay-offs (Law 7, 2009), increases in employee contributions and retirement age (Law 2013), and fringe benefit reductions and mobilization across agencies (Fiscal Compliance Act of 2017).

In 2016, the US Congress enacted the PR Oversight, Management and Economic Stability Act (PROMESA), installing the Financial Management and Oversight Board (FMOB) with decision-making power on all fiscal matters. In May 2017, the Oversight Board filed in the federal district court for debt relief under Title III of PROMESA, a form of bankruptcy to restructure PR fiscal liabilities. Presently, the court proceedings are underway while the FMOB is mandating a reduced government budget, a 10 percent cut in pensions for retired public workers, reduced fringe benefits for public workers, and drastic changes to Puerto Rico labor laws that will affect workers in the private sector. In May 2018, the FMOB approved to include Puerto Rico's 78 municipalities under its jurisdiction, a process that will be initiated with a pilot of ten municipalities. The FMOB also filed more than 200 lawsuits against government suppliers, most of which are local small businesses, claiming that suppliers were either paid without a written

contract or received payments that exceeded the value of the goods and services provided to the government. The financial burden of the lawsuits on small businesses that may not have the resources needed for legal representation, could lead to the closure of operations and thus, more people out of work. Up to this date, the country is still ruled by the FMOB. The economic situation of the country has not been able to recover, and the COVID-19 pandemic has affected it. By March 2020 the government declared a total lockdown. Restrictions are being released gradually with setbacks in restrictions. The businesses are affected, facing challenges of finding personnel available to work. Gradual recovery is occurring, and the pandemic crisis is in a good track for a solution. COVID-19 immunization efforts have brought vaccinated rates to a good level.

The Caribbean region is susceptible to multiple natural hazards including earthquakes, volcanic eruptions, tropical storms, and hurricanes. The position of the islands with the Atlantic Ocean to the north and the Caribbean Sea to the south make these beautiful islands vulnerable to storms and hurricanes every year, especially between June and November.



Hurricane Irma hit Puerto Rico on September 7, 2017 and then Hurricane María, with 155 mph winds, struck on September 20, 2017. The hurricanes caused billions of dollars in damages leaving behind widespread destruction to homes, businesses, energy grid, roads, highways, and public and private institutional facilities. Research on the deaths related to the hurricanes place the death toll at approximately 3,000 people. Puerto Rico then got hit by a series of earthquakes starting in January 2020 and then Hurricane Isaias in July 2020 and then for more than a year the COVID-19 pandemic. The recovery from the devastation caused by the natural disasters will take years according to experts. Beyond economic costs, the hurricane and pandemic caused sadness, distress, anguish, uncertainty and frustration as people's lives were completely disrupted. The society they once knew changed drastically.

## Health Care System

In the 1990s the administration of public health care was transferred from the government to contracted private insurers who provided health care services on a capitated payment plan. The PR Health Insurance Administration (PRHIA) oversees and negotiates contracts with private insurers.

The Government Health Plan (GHP) integrates physical and mental health in one facility, expands preventive medicine and screening, and provides direct access to specialists without the need for referral within a Preferred Provider Network. The GHP is financed by a combination of state, municipal and federal funds (Medicaid and SCHIP). Medicaid funding to PR is capped at a fixed amount regardless of the number of eligible individuals or their medical needs. The Affordable Care Act (ACA) funds (non-recurrent) were added to the GHP for Medicaid assigned funds. Through the ACA several benefits such as family planning and contraception services were added to the GHP's coverage. In 2020 there were 1,147,814 (median) persons covered by the GHP through five insurance companies. In 2018 Vital Statistics data show that 67% of women who gave birth were covered by the GHP.

In Puerto Rico, determinants such as lower economic income, less schooling and access to medical insurance are common sociocultural determinants of health. In addition, there are disparities in the provision of health services that place certain population groups in the position of total exclusion; particularly immigrants and populations not insured by medical plans are the most affected compared to groups that, for some reason, have restrictions on access to health services. According to Puerto Rico Behavioral Risk Factor Surveillance System (PR-BRFSS) data for 2020, the population between the ages of 25 and 34 has the highest percentage of people without health insurance coverage; 8.8% of persons under age 65 don't have health insurance. These people are of productive age, with a very unequal distribution, since 57.3% of the population generates or receives less than \$25,000 per year; this could prevent them from having access to the government health plan, while these low monetary resources make it impossible to pay for private health insurance.

According to Law No. 35 of June 28, 1994, hospitals that have an emergency room or stabilization room are required to provide the necessary services to all with health emergencies and to women who are in labor. Under this law, the hospital cannot deny service to anyone if they cannot afford to pay.

Understanding the devastation and suffering that continue after all the natural disasters and in the midst of the socioeconomic crisis is crucial for public health. First, the storm exacerbated job loss, income, poverty and housing/living conditions. Second, low-income people in rural areas face geographic disparities in accessing health care due to very limited transportation and shortage of specialists and facilities. The Health Resources and Services Administration (HRSA) designated 72 of 78 municipalities as medically underserved areas (MOU). In 2020, the PR health system comprises 68 hospitals island-wide with 13,467 certified beds and 10,162 active beds. The distress endured by residents brought about and/or exacerbated mental health conditions. Basic services on Vieques and Culebra are lacking. (ABC News, April 2, 2021.) Vieques has been without a hospital since Hurricane Maria hit in 2017. Culebra has a clinic that to treat emergencies, but patients must be transported to the main island for escalated care. And though a massive vaccination effort has been launched on both island municipalities, the

potential devastation of COVID-19 on the already trouble-plagued local transportation system and health centers is also raising further concern among residents and serving as a reminder of the islands' vulnerability amid emergencies.

The GHP has a Special Coverage Registry (SCR) for Children with Special Health Care Needs (CSHCN). Enrollees have the option to choose the providers for services from the Preferred Provider Network of their Participating Medical Group (PMG) or their Health Plan's General Network. Medications, laboratory tests, diagnostic tests and other related specified services are part of this coverage. In 2018, there were 40,426 children enrolled in this SCR. The GHP also has a SCR for Autism Spectrum Disorder (ASD). When ASD is suspected, children are enrolled in a temporary coverage for up to six months for the diagnostic interventions. To be included in the ASD Special Coverage Registry, a child must be certified by one of the following GHP providers: neurologist, psychiatrist, developmental pediatrician or clinical psychologist. In 2018, there were 1,279 children enrolled in the ASD-SCR.

Since Hurricane Maria devastated Puerto Rico in 2017, there has been a large migration of physicians to the mainland US. Puerto Rico passed Act No. 14- 2017 known as the "Incentives Act for the Retention and Return of Medical Professionals" aimed at retaining practicing physicians in PR as well as attracting those who already had left through tax incentives. This act establishes a 4% fixed rate of income contribution on all income generated by the medical provider for a term of fifteen years. A similar migration is true for dental professionals.

The illegal use of opioids is a serious problem in Puerto Rico. To address this problem, Puerto Rico established the Prescription Monitoring Program for Controlled Substances (under Law 70 of 2017 for Monitoring the Prescription of Controlled Substances), which opened for physicians' registration in June 2018. This program establishes and maintains a system of electronic prescription monitoring of controlled substances dispensed on the island.

### **Dental Care System and Oral Health Needs**

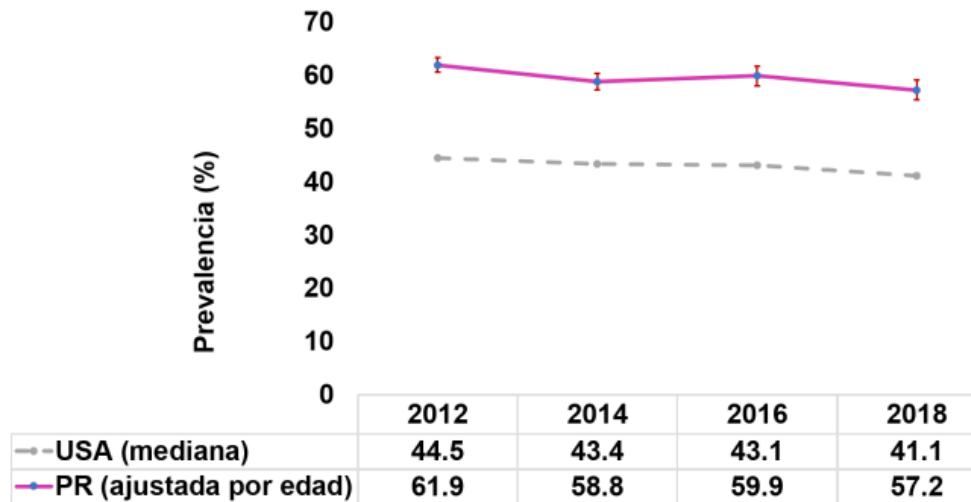
An island-wide study in 1997 documented caries prevalence in 12-year-olds at 81% of 1,435 children, DMFT at 3.8 and DMFS at 6.5, higher than other Caribbean countries and the US average. Comparing the 1997 study to one done in 2011, dental caries among 12-year-old schoolchildren in Puerto Rico decreased in prevalence to 69%, average DMFT to 2.5 and average DMFS to 3.9 as well as the DMFT missing component, while the filled component increased. Dental caries prevalence as still high, with disparities persisting between children attending public vs private schools and among regions of PR. This study did not address risk factors or other social determinants of oral health. ([Elias-Boneta, A.R. et al. Persistent oral health disparity in 12-year-old Hispanics: a cross-sectional study. BMC Oral Health. 2016; 16:10](#))

From a different phase of the same research study of 12-year-olds in a probability sample of 113 schools in 11 government health insurance regions (GHI), gingivitis was found in 80.4% of the 1586 children, with extreme gingivitis in 60.8%; urban public schoolchildren had a slightly higher prevalence (83.2%) compared to private (79%); while those in rural public schools (77.5%) and private schools had similar prevalence. Calculus was detected in 61.6% of the sample and the mean percentage of sites showing bleeding on probing was about 18%. (Elias-Boneta, AR et al. Prevalence of gingivitis and calculus in 12-year-old Puerto Ricans: a cross-sectional study. BMC Oral Health. 2018; 18:13)

The same researchers conducted a cross-sectional study of a sample of 300 patients ages 35 to 70 from a private practice and patients/employees of the Puerto Rico Medical Center. All participants (52% women and 48% men) had gingivitis, with mild in 7.3%, moderate in 83%, and severe in 9.3%; 99% also demonstrated bleeding on probing. (Elias-Boneta, A.R. et al. Prevalence of gingivitis in a group of 35-70-year-olds residing in Puerto Rico. PR Health Sci J. 2017; 9:36(3): 140-45)

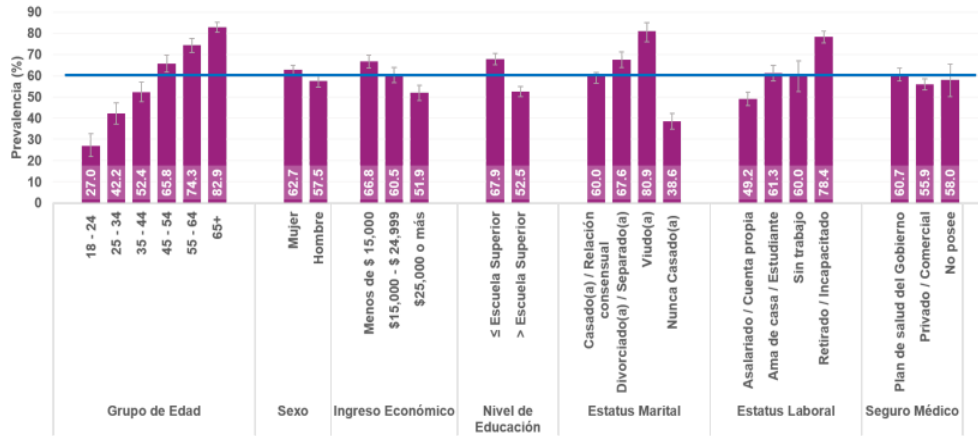
Prevalence of adults with at least one extracted tooth

**Tendency: Puerto Rico vs. United States (2012,2014,2016,2018)**



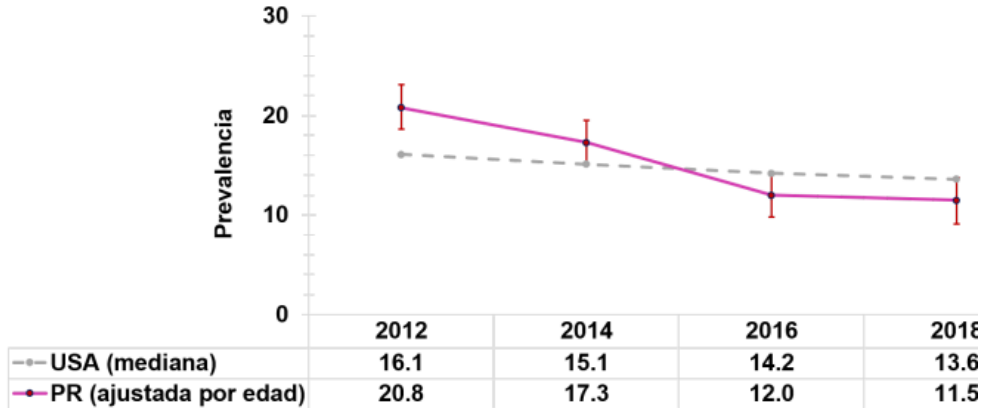
- 3 of 5 adults have at least one extracted teeth (60.3%)

**By age, sex, financial income, school level, marital status, job status, insurance**



Prevalence of older adults (65 y/o +) with all extracted teeth

**Puerto Rico vs. USA- 2012 and 2014 higher in Puerto Rico, 2016,2018 – higher in USA**



1 out of 9 (11.2%) of older adults in Puerto Rico have all teeth extracted; higher % in lower school level)

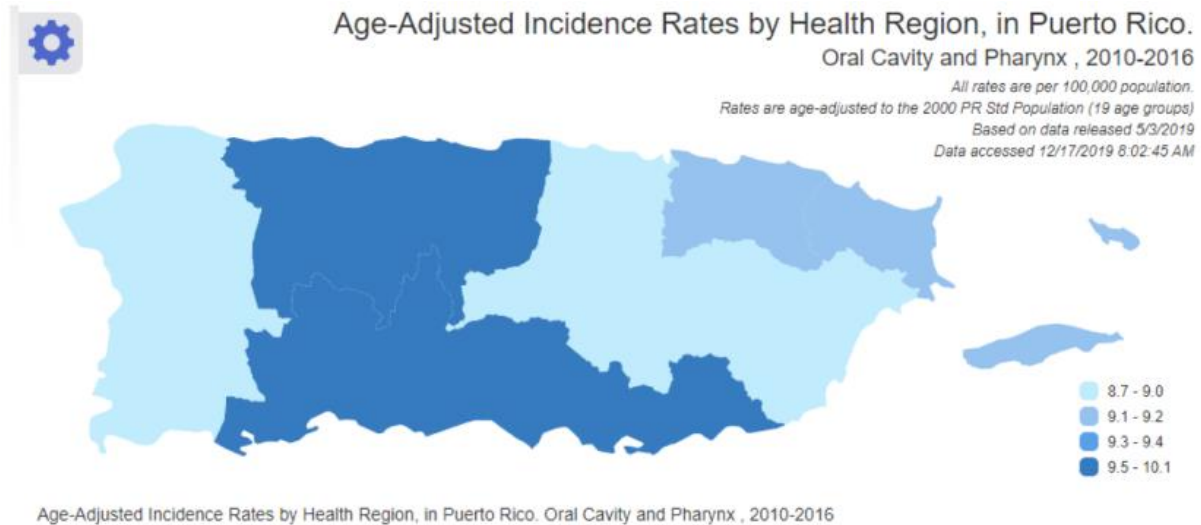
Puerto Rico Head Start Children 2019

- 28,011 (96.7 %) participants (0-5y/0) had continuous access to dental care
- 73.2% received an exam by a professional dentist during the last year

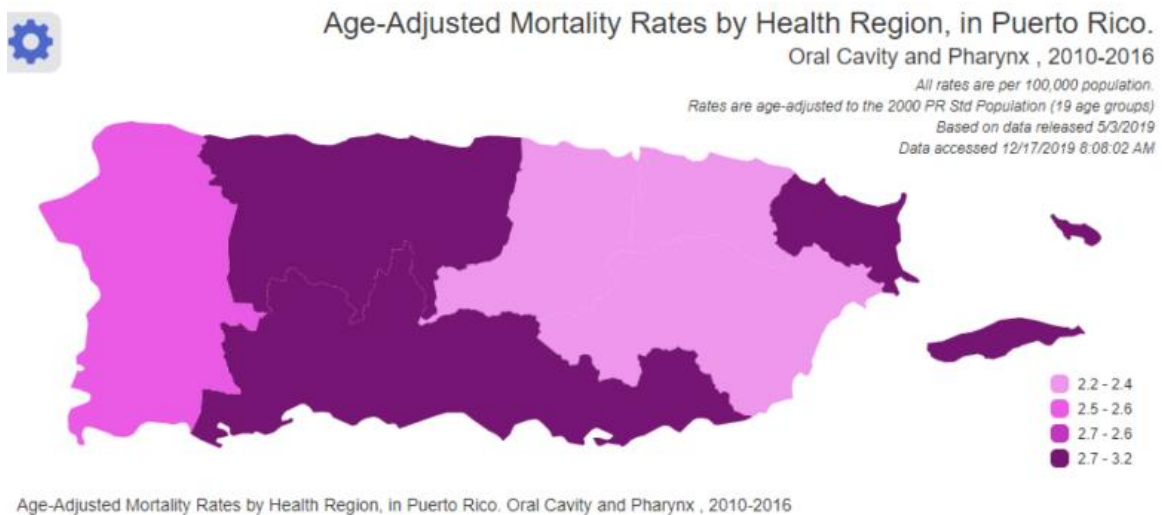


## Oral pharyngeal cancer 2010-2016

- **Incidence** - fluctuates from 11.7% to 12.2 %
  - More in men (14.2%-15.1%), than women (3.9 % - 4.9%)



- **Mortality**
  - 2.9 – 4.2%
  - More in men (3.7-5.3) than women (.6 - .7)



### Pregnant women 2018:

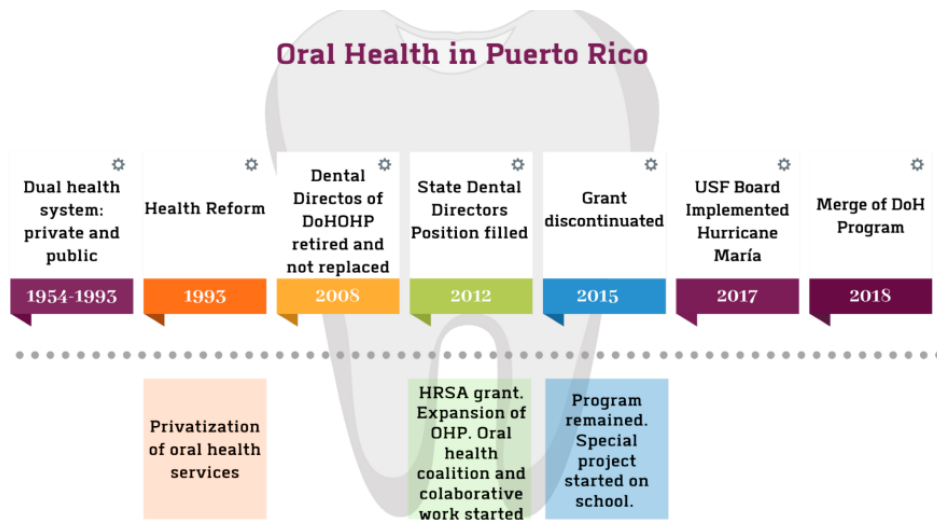
- 49 % received and oral prophylaxis
- 77% were aware of the importance of dental visits during pregnancy
- 13% visit a dentist for oral problem
- 51% consulted a dental professional
- 96% had dental insurance. (PRAMS data)

### **Medicaid and Insurance**

Medicaid is central to health care in Puerto Rico, covering almost half the population in 2017. Puerto Rico is generally considered a state for Medicaid purposes. It is subject to most federal requirements and shares many of the same roles, responsibilities, and administrative structures as other Medicaid programs. Medicaid in Puerto Rico operates in a challenging environment of widespread poverty, high prevalence of chronic illness, and poor economic conditions worsened by hurricanes in September 2017. The statutorily defined Medicaid financing parameters—a capped allotment and a 55 percent federal matching rate—have resulted in chronic underfunding of the program. Underfunding has led Puerto Rico to establish more limited benefit packages and lower income eligibility levels, set lower provider payment levels, and adopt and upgrade key administrative systems and processes more slowly than other states.

Like other states, when faced with decisions about budget costs, Puerto Rico has often applied reductions to provider payment rates because other program costs (e.g., medical equipment or drugs) are relatively fixed (MMPHA 2018, Perreira et al. 2017). As a result, Medicaid physician and dentists fees are low in Puerto Rico compared to other states for certain services, including primary care and maternity services. This factor is parallel in the private insurances and represents a challenge for retention of professionals in Puerto Rico.

Since 1993, dental care for the population is mostly offered by private dentists at their offices, or at Federal Medical Centers (330). The government insurance (today called Vital) is a fee for service system where all patients can access the providers at their offices or centers where they work.



### Workforce – Puerto Rico Dental Board – Laws

All dental professionals in Puerto Rico are required to obtain a license from the Puerto Rico Dental Board of the Department of Health aligned with the American Dental Association. This includes dentists, dental hygienists, dental assistants, and expanded duties dental assistants. A license is not required for dentists while participating in the following activities as ruled:

- active military service
- function of Professor of the School of Dentistry
- student of a Dental Program
- offering a conference as a lecturer
- other.

The only dental hygiene program in Puerto has been in moratorium for years because of financial reasons. The Dental Law allows expanded duty dental assistants to perform some of the functions of a dental hygienist. There are several colleges and universities in Puerto Rico with Dental Assistant Programs.

By 2018, there were 1,010 dentists registered in the Puerto Rico Dental Society – a requirement to practice the profession. As of 2020, there were 873 registered dentists. Specialties recognized by the Board: Dental Public Health, Oral and Maxillofacial Pathology, Oral and Maxillofacial Surgery, Orthodontics and Dentofacial Orthopedics, Pediatric Dentistry, Periodontics, Prosthodontics, Endodontics, and Oral and Maxillofacial Radiology. (Department of Health Dental Board of Examiners)

There are several factors that are contributing to the decrease in dentists in Puerto Rico:

- Financial crisis of Puerto Rico since 2006 and has not recovered yet.
- Low fees for providers, better salaries in the states. Migration is easy and does not require permits or visas. Puerto Ricans are US citizens, and the island is close to the US.
- Increased tendency of students to study specialties in the US. Once they complete, they stay. Low percent of new graduates that establish practice in Puerto Rico.
- Safety (crimes, robberies)
- Access – island limitations
- Other.

### **PR Cultural Strengths**

Despite economic hardships and stressful social conditions, the people of PR have strengths and resiliency seldom publicly recognized. Culturally, great value is placed on seeking a post-secondary education to better one's life, which accounts for the skilled or semi-skilled labor force that has been and still is sought after on the US mainland.

There is a wide variety of informal and formal organizations (about 11,000 formal non-profits) geared to improve life through cultural promotion (arts, music, dance), neighborhood revitalization, environmental protection, youth development, and community development (may include micro enterprises, health promotion and community/home vegetable gardens). There are NGOs that have been successful, such as Nuestra Escuela and Sor Isolina, in providing alternative education to school dropouts to attain a high school diploma. A strong and economically sound cooperative movement is another important asset in Puerto Rico's society. There is also an ecological movement to protect the environment and the health of people.

In PR, most of the activities of women and families revolve around kinship and neighborhood networks. In general, relations among neighbors in low-income communities are highly personal and reciprocal despite any internal conflicts. This is most evident in times of crisis, deaths, fires and other emergencies. Kinship ties provide emotional and financial support (may include housing) to women and children as resources are pooled, borrowed and shared.

Grandparents and other kin are very influential in parents' and children's lives. It is common for grandparents to provide unpaid childcare to working mothers and/or at times of need.

The strengths and resiliency in Puerto Rico became most evident in the aftermath of the hurricanes. NGOs were highly instrumental in helping people as they distributed food, water, water filters, solar lights and other supplies in shelters and communities. Very importantly, people themselves displayed generosity and resourcefulness. Neighbors shared food, (in some places cooked together and established community kitchens), water, ice and even power

from generators through extension cords. Neighbors also organized where and how to put damaged items in communities and in many instances took them to the landfill. In some communities, neighbors shared their own money to pay private electricians to restore energy while in others its members joined retired workers of the PR Electric Power Authority to raise power poles and cables.

All over the island, people turned to cultural practices like music, songs, phrases (like “Puerto Rico se Levanta” - Puerto Rico Rises) and the Puerto Rican flag as symbols of strength and resolve to help overcome the pain and desolation caused by the hurricanes.

## **PR Challenges**

The US Government Accountability Office issued a new report in March 2021 about cleanup of old military items from Vieques and Culebra. ([NBC News, March 26, 2021.](#)) So far, crews have removed munition including 32,000 bombs, 12,000 grenades and 1,300 rockets from Vieques, where the US government relocated residents when the Navy began using the island as a training range in the 1940s. Meanwhile, crews have cleared more than 5,000 unexploded ordnances since January 2020 in Culebra, where the military ceased all activities in 1975. An unknown number of munitions remains on both islands. In addition, the Navy identified perchlorate in the groundwater in at least one site in Vieques, where it operated a training range on 14,500 acres until its closure in 2001. The area was later designated as a Superfund site believed to contain mercury, lead, napalm, depleted uranium and other contaminants. The GAO said that substantial work remains to be done in one site that covers some 11,500 acres underwater and extends from Vieques’ shoreline to a depth of 10 to 15 feet. Meanwhile, cleanup at 14 of 15 former military sites in Culebra will continue through fiscal year 2031.

FEMA lost track of more than a quarter-billion dollars in supplies intended for Puerto Rico during its response to 2017 hurricanes Irma and Maria, according to a report. ([ABC News, October 1, 2020.](#)) In the critical first two months after Maria, local officials from nearly a quarter of municipalities said they did not receive sufficient food and water, and 40% said expiring food caused "significant problems." Many of the food packages were boxes filled with junk food.

Given these situations, Puerto Rico’s challenge is to balance the needs of populations with existing internal and external resources in the face of an unprecedented economic crisis and shrinking public resources. Puerto Rico is using internal strengths and the strength of the Puerto Rican society to face the challenges of improving oral health and well-being of all its population. The process is slow and compounding social, economic, and environmental factors all affect the individuals, families, communities, and institutions.

# III. Oral Health Environment in Puerto Rico

## Assessment Tools

The ASTDD consulting team reviewed numerous existing needs assessment formats and survey tools, including the *ASTDD State Synopses* for possible use with Puerto Rico and other territories. Because many of the territorial oral health programs are more clinically focused and function more like local health departments or community health centers rather than state government oral health programs, we decided that existing tools were insufficient. We subsequently made a list of potential topics and data elements that might prove useful for the needs assessment. ASTDD gathered input about the potential topics and then developed two assessment tools and templates, *Priority Oral Health Topics and Components* and *Characteristics of the Oral Health Environment*. With these templates, information was collected from Puerto Rico on its infrastructure strengths, weaknesses/gaps/challenges and opportunities within seven components: [1] geography, demographics, and economy [2] oral health needs/demands; [3] care delivery sites; [4] funding for the oral health program and services; [5] workforce (current staffing and those in the “pipeline”); [6] policy mandates; and [7] partnerships and collaborations. The information in this section is based on the *Components and Characteristics of the Oral Health Environment* tables from Puerto Rico’s oral health advocates present at ASTDD and the Department of Health Partners Strategy 3 Work Group meeting in San Juan, Puerto Rico. The aggregated information was compiled and placed into the following tables. In addition, the top three Oral Health Priorities were identified and listed in the last table with potential partnerships and goals listed. The Oral Health Priorities table was updated in March 2021 reflecting priorities after a year into the COVID pandemic.

## Summary of Findings and Potential Opportunities

<b>1. Geography, Demographics, Economy</b>	
Infrastructure Strengths:	<ul style="list-style-type: none"> <li>• Puerto Rico has good infrastructure connecting households across the metropolitan and rural areas. There is a good supply chain that efficiently moves goods and services. The systems of communication networks, sewage, water, and electrical are vital to the Island’s economic development and prosperity.</li> <li>• In Puerto Rico, despite long-standing governmental designation of Spanish and English as co-official languages, bilingualism is prevalent.</li> </ul>

There are certainly many bilingual individuals, especially in academia, the professions, the tourist industry, and the world of business. However, Puerto Rico is not a fully bilingual society. There is a difference between individual bilingualism and societal bilingualism.

- Status as a US territory following the 1898 Spanish-American War provides Puerto Ricans benefits as US citizens but lacking full political representation.
- Nationalistic pride is very prominent in Puerto Rico. Puerto Ricans highly value their local language and culture.



- The culture of Puerto Rico has been greatly influenced by its history. With the blend of Taino Indians, Spanish, and African cultures comes a cross-section of people and traditions, as well as the impact of the United States political and social exchange in every aspect of life.
- Dental professionals who practice on the island provide culturally sensitive oral health care to their patients and community.
- On September 2017, a state of emergency was declared due to Hurricane Irma and María, which destroyed a great part of the Island's infrastructure.
- Hurricane relief funds for recovery were authorized by the US government.
- Up to this date, the activities and facilities are still functioning. Still, there are major reconstruction works occurring. After regaining stability, the Department of Health implemented the mandatory oral health certificate in schools responding to the Act #63 of 2017.
- An increase was observed among children between 1-16 years old in

	<p>oral health claims and beneficiaries that received preventive oral health services after the implementation of Act 63. Surveillance and monitoring are continuous. (Oral Health Claims in Puerto Rico – Oral Health Program April 2021 Report)</p>
<p>Challenges:</p>	<ul style="list-style-type: none"> <li>• There is constant migratory flow between the US mainland and Puerto Rico with Puerto Ricans relocating to the mainland for periods of time, and then returning with improved English language usage. Bilinguals often mix elements of one language into another, creating new and innovative forms of the languages. The ones who suffer the most from negative attitudes toward mixed varieties are returning migrant children who were criticized on the mainland because they didn't speak standard English and then criticized in Puerto Rico because they don't speak Puerto Rican Spanish.</li> <li>• Damaged and poor public transportation systems are attempting to improve after the storms. This is particularly challenging between the two island municipalities to the east of the main island.</li> <li>• In Puerto Rico one of the fastest growing population groups is older adults. There is substantial need for research and services for this group.</li> <li>• Puerto Rico is located in a very hurricane prone area of the Atlantic. The increased frequency and severity of storms during hurricane season is one of the most dramatic natural occurrences that impacts Puerto Rico.</li> <li>• Hurricane Maria exposed weaknesses in the Puerto Rico health system, notably the lack of awareness about the limited capacity of backup generators, poor patient care coordination, and interruption of medical care for patients with chronic conditions.</li> <li>• Energy is a critical lifeline for Puerto Rico, and the residents' health and well-being depend on a stable and reliable source of power. Natural disasters have shown how unreliable and fragile the current centralized energy system can be.</li> <li>• Amid an ongoing fiscal crisis and struggling economy, the public health response to COVID-19 has stretched local resources available for hurricane preparedness. Providing communal storm shelter during a pandemic also raised serious public health concerns, especially among residents who already lack adequate housing.</li> <li>• Several years after hurricane Maria, Puerto Rico still has received</li> </ul>



insufficient funds and support from Congress and the Federal Government to restore essential infrastructure.



- Puerto Rico, being an island, makes water expensive because a majority must be brought into the territory from the US mainland.
- Great distances from sources for goods and resources makes the cost of products and items not manufactured on the island such as dental supplies and equipment more costly.
- Geographic isolation also increases the costs of transportation within Puerto Rico and to the mainland.
- Culture and language present both an opportunity and a challenge. Dental providers who are not familiar with the language and culture have a difficult time understanding traditions, folklore, and behavioral habits.
- Medicaid funds are limited although a recent infusion of federal Medicaid funding significantly increased in 2020. Nevertheless, efforts are underway for this increase to be recurrent, as well as other funding to be permanent and similar to any state.

Opportunities and Possible Next Steps:

- Greater coordination, collaboration and integration of public health efforts can be beneficial to enhance effectiveness and efficiency, close gaps and avoid duplication of efforts. The formation of partnerships, coalitions and collaborations may provide more efficiency in the delivery of oral health care.
- Funding should be centralized and prioritized based on the population's most urgent needs.

- The island is located strategically to reach out to other Caribbean islands, as well as Central and South America. Puerto Rico can serve as a liaison with other hurricane-affected countries and provide lessons learned on how to overcome natural disasters.



**People in the immediate San Juan metro area speak English, but this is not typical of most of the island. People who live in most municipalities and mountainous interiors of the island demonstrate less English-speaking proficiency as Spanish is their primary language.**

## **2. Oral Health Needs**

Infrastructure Strengths:

- The University of Puerto Rico, School of Dental Medicine (UPR) provides an excellent dental education and prepares their graduates to serve the population. They offer a Doctor of Dental Medicine curriculum as well as advanced programs in General Practice Residency, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry and Prosthodontics. Also, two other dental schools will possibly open in Puerto Rico in the future.
- Puerto Rico has various programs for Children with Special Health Care Needs (CSHCN) on the island. Existing collaborations among organizations and professionals serve to meet the needs of CSHCN.
- Puerto Rico is united in efforts to improve the oral health of their citizens. Oral Health Coalition formation and activities have positively impacted collaboration of various organizations and groups that

	<p>advocate for dental health efforts.</p> <ul style="list-style-type: none"> <li>• The Maternal and Child Health Block Grant, Title V of the Social Security Act, is the only federal program devoted to improving the health of all women, children and families. In Puerto Rico in FY 2020, 99.9% of all pregnant women, 74.67% of infants, and 39.8% of children benefited from Title V supported services.</li> <li>• Puerto Rico selected the Title V national performance measures that targets increasing preventive dental visits. Oral Health data exists for children from age 1-17 years.</li> <li>• Addition of Behavioral Risk Factor Surveillance System (BRFSS) data, Pregnancy Risk Assessment Monitoring System data, as well as Government Insurance Plan Data, and the Oral Health Certificates Report has strengthened the surveillance of oral health.</li> <li>• In decision-making strategies, Puerto Rico Title V uses the following overarching principles to assess the importance, value, and priority of competing factors: <ul style="list-style-type: none"> <li>○ Community health promotion</li> <li>○ Health literacy and empowerment</li> <li>○ Family and youth inclusion</li> <li>○ Collaborative networks</li> <li>○ Understanding the impact of the Social Determinants of Health (SDH) on populations.</li> </ul> </li> <li>• Most Puerto Rico oral health programs collect some data on oral health, commonly on the number of decayed, missing and filled teeth (dmft/DMFT).</li> <li>• Head Starts are guided by the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) benefit that follows the American Academy of Pediatrics Recommendations for Preventive Pediatric Health Care and the American Academy of Pediatric Dentists Recommendations for Pediatric Oral health Assessment, Preventive Services, and Anticipatory Guidance/Counseling for early assessment, prevention and intervention of oral disease in children.</li> </ul>
Challenges:	<ul style="list-style-type: none"> <li>• There currently are no educational programs for dental hygienists, nevertheless Puerto Rico Dental Law allows expanded duties dental assistants the prophylaxis and fluoride application. The only dental hygiene program was offered by the public University of Puerto Rico and has been in moratorium for several years. To have this program could increase opportunities to provide more preventive and primary oral health care services in the community.</li> <li>• There currently isn't much focus on dental public health training or</li> </ul>

	<p>workforce in PR. Development of a Dental Public Health Residency could increase the focus on population oral health versus individual care.</p> <ul style="list-style-type: none"> <li>• Well-trained dental professionals are leaving Puerto Rico for opportunities with more financial and professional growth potential.</li> <li>• Many people continue to view oral health as a low priority or do not have the resources to spend on services and do not seek care until there is a serious problem.</li> <li>• Dentists are leaving to practice on the mainland because it takes from six months to a year to receive credentialing and authorization to be accepted as a dental provider by some insurance plans. This waiting time prohibits or limits the patients that can be seen, therefore having financial and sustainability consequences for the dental practice.</li> <li>• Non-standardized common oral evaluation processes make oral health surveillance and data comparisons difficult.</li> <li>• Serious oral health problems exist, including high dental caries prevalence among all ages, and a high prevalence of diabetes, cardiovascular disease, periodontal disease, and obesity/poor diets among adults.</li> <li>• Community water fluoridation was passed by the legislature in 1952 making fluoridation mandatory in Puerto Rico, however, until 1997 it wasn't implemented or enforced. In September of 1998, the Governor signed into law a mandatory requirement for water fluoridation that was implemented in phases; by the year 2000, 75% of the population in Puerto Rico should have had access to fluoridated water. But in practice, as far back as the 1980s, the water fluoridation systems are not functioning due to lack of maintenance and replacement of the systems. Also, after water quality challenges from Hurricane Hugo in 1989, and general global perceptions of bottled water as healthier, most people are opting for bottled water.</li> </ul>
<p>Opportunities and Possible Next Steps:</p>	<ul style="list-style-type: none"> <li>• With data from insurance claims (ASES), the Government's Insurance Plan can be used to establish baseline figures for dental care provided and help to define additional needs assessments.</li> <li>• Collaboration among the dental school, the health department and other oral health entities and organization could help to establish standardized data collection and monitoring through validated oral health surveillance methods such as the ASTDD Basic Screening Survey.</li> </ul>

<b>3. Public Oral Health Care Delivery Sites</b>	
Infrastructure Strengths:	<ul style="list-style-type: none"> <li>Public oral health care delivery sites range from fixed facilities, e.g., in main hospitals or in community health centers, to extramural/community sites, e.g., community dispensaries, schools and Head Start centers, most using portable dental equipment. In most local programs, services are provided by culturally appropriate staff, e.g., same ethnicity and in appropriate settings. On occasion outreach/off-site care is provided in conjunction with other health disciplines, e.g., nurses, health department branches, community centers.</li> <li>The PR Dental Director has a strong commitment and passion to provide the necessary oral health care services for the population of Puerto Rico.</li> <li>The PR Health Department incorporates oral health in other programs such as, Grants to States to Support Oral Health Workforce Activities funded by HRSA, the Puerto Rico Office for Children with Special Medical Needs and Maternal and Child Health Block Grant, and values the importance of oral health to general health.</li> </ul>
Challenges:	<ul style="list-style-type: none"> <li>Many dental clinic locations have limited clinical facilities and equipment, some in need of repair or replacement. Because of their remote locations from vendors, products, and other resources, importing equipment and supplies is expensive, and there is limited local expertise for equipment maintenance.</li> <li>The PR Dental Director is not full time and there is a need to develop and expand oral health programs across the island.</li> </ul>
Opportunities and Possible Next Steps:	<ul style="list-style-type: none"> <li>Funding from grants to expand the services provided by the Health Department.</li> <li>Further collaboration with the University of Puerto Rico to engage dental students in public health settings.</li> <li>Possible use of teledentistry.</li> </ul>

<b>4. Funding for Public Health Oral Health Programs and Services</b>	
Infrastructure Strengths:	<ul style="list-style-type: none"> <li>Puerto Rico has fortunately been successful in obtaining funding from CDC (to develop and implement an oral health surveillance plan and promote, coordinate, implement, and evaluate dental sealant programs within elementary and middle schools) and HRSA grants to Support</li> </ul>

	<p>Oral Health Workforce Activities and is optimistic that they will continue to be competitive in obtaining future funding.</p> <ul style="list-style-type: none"> <li>• Various grants from philanthropic organizations have been received to support public health services: for example, the Puerto Rico Alliance for Chronic Disease Control has published in its Facebook page, educational videos developed by the Puerto Rico Oral Health Program, the Puerto Rico College of Dentists and the UPR School of Dentistry. Furthermore, the Alliance has disseminated by email to its members informational material shared by the Puerto Rico Oral Health Program. In addition, Colgate has provided oral health educational material to the Oral Health Network partners to disseminate.</li> <li>• PR will be in a good position to respond to possible future funding opportunities targeting US territories.</li> </ul>
Challenges:	<ul style="list-style-type: none"> <li>• Most, if not all Puerto Rico oral health programs, are faced with insufficient funding, insufficient workforce to meet the oral health care needs, and geographic challenges.</li> <li>• Insurance companies in Puerto Rico control the medical funded services that may limit what services are covered or performed. Basic dental preventive services are included as part of the general health services covered in the insurance companies</li> <li>• Funding from local government has been decreasing, making it very important to secure outside funding (grants, etc.)</li> </ul>
Opportunities and Possible Next Steps:	<ul style="list-style-type: none"> <li>• Collaborate with agencies to apply for grants and incorporating an oral health component into primary care., e.g., for prenatal health care, within telehealth.</li> <li>• Engage private insurance companies to disseminate educational information to providers (dental staff) and beneficiaries to promote oral health services.</li> <li>• Use existing data to make compelling cases for governmental funding appropriation to provide oral health services and care.</li> </ul>

<b>5. Workforce (Current Staffing and Pipeline)</b>	
Infrastructure Strengths:	<ul style="list-style-type: none"> <li>• There is an established pipeline for training dentists, including some specialists through the UPR School of Dentistry.</li> <li>• Professional dental organizations are well represented and contribute to promoting the importance of oral health to overall health.</li> <li>• Most community health centers provide dental care to populations who are eligible for their services.</li> </ul>

Challenges:	<ul style="list-style-type: none"> <li>• Dental professionals are leaving Puerto Rico for opportunities with more financial and professional growth potential on the US mainland.</li> <li>• There is no utilization of dental hygienists in clinical settings. There is no longer a dental hygiene education program at the PR School of Dentistry. Dental hygienists living in Puerto Rico currently have few job opportunities.</li> <li>• Since so many recent graduates are leaving Puerto Rico, the current workforce is aging. Incentive strategies must be implemented to retain dentists in Puerto Rico.</li> </ul>
Opportunities and Possible Next Steps:	<ul style="list-style-type: none"> <li>• Attend to the workforce shortages, e.g., growing reservoir of unmet need, growing waitlists for care, and limited extramural services: <ul style="list-style-type: none"> <li>○ Future opening of additional dental schools</li> <li>○ Strengthening of collaborations</li> <li>○ Continue Oral Health Coalition Meetings</li> <li>○ Initiatives with the government and insurance companies: loan repayment programs, increase in dental insurance fees, etc.</li> </ul> </li> <li>• Utilization of community health workers trained in oral health promotion and disease prevention.</li> <li>• The designation of Dental Health Professions Shortage Area (DHPSA) scores critical enough for National Health Service Corps members to work in the Designated Dental Shortage Area and be eligible for the NHSC Loan Repayment Program. This may be an avenue to recruit dentists trained in Puerto Rico to not leave the island.</li> <li>• Establishing partnerships to ensure formal, regular continuing education opportunities and training for all dental team members.</li> </ul>

<b>6. Policy Mandates</b>	
Infrastructure Strengths:	<ul style="list-style-type: none"> <li>• A recently enacted law in Puerto Rico, now requires that children have an oral health assessment (dental check-up) before kindergarten, second, fourth, sixth, eighth, and tenth grades. Dental assessments completed up to six months before the child enters school also meet the requirement. The law specifies that the assessment must be done by a licensed dentist.</li> </ul>



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**CERTIFICADO DE EXAMEN ORAL**

Nombre del menor		Sexo		Edad		Grado que cursa	
Apellido Paterno		Apellido Materno		Nombre		Inicial	
		F		M			
Dirección física		Dirección postal		Teléfonos			
				( )			
				( )			
Nombre del padre, madre o encargado				Relación con el menor			
<b>EXAMEN ORAL</b>							
<input type="checkbox"/> <b>SE REALIZÓ EVALUACIÓN ORAL</b> Fecha: Día / Mes / Año <input type="checkbox"/> Se ofreció orientación de prevención e higiene <input type="checkbox"/> Se refirió al paciente para tratamiento				<b>RECOMENDACIONES :</b> <input type="checkbox"/> Cuidado dental regular de rutina <input type="checkbox"/> Necesita tratamiento dental adicional al de rutina <input type="checkbox"/> <b>URGENTE</b>			
<b>CERTIFICACIÓN DEL PROVEEDOR</b>							
Certifico haber provisto las recomendaciones y servicios arriba indicados							
Nombre del dentista				Número de licencia			
Dirección del dentista				Teléfonos			
				( )			
				( )			
Firma				Fecha			
				Día / Mes / Año			



- Accompanying the law requirement are messages stating that if a child has poor dental health, then the child is not healthy and ready for school. Other messages are:
  - Take your child to the dentist twice a year
  - Choose healthy foods for the entire family
  - Brush teeth at least twice a day with toothpaste that contains fluoride
  - Limit candy and sweet drinks, such as punch or soda.
- The education system has incorporated oral health messages into the educational curricula but they need to be reinforced at all ages and with parents.

**Challenges:**

- Dental insurance payment/reimbursement policies could benefit from a re-evaluation to determine if changes are needed.
- New laws must be enforced, with ways to promote acceptance by parents and caregivers.



<p>Opportunities and Possible Next Steps:</p>	<ul style="list-style-type: none"> <li>• Continue to build on beneficial policy mandates that promote oral health and oral health programs.</li> <li>• Continue working with oral health advocates and other health professionals to promote the importance of oral health as an integral part of overall health.</li> </ul>
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<p><b>7. Partnerships and Collaborations</b></p>	
<p>Infrastructure Strengths:</p>	<ul style="list-style-type: none"> <li>• Puerto Rico professionals formed an Oral Health Coalition in 2013 that continues to promote and advocate for enhanced access to oral health services and more expansive and comprehensive oral health programs. The Title V Program is being represented on the OHC. The Oral Health Program, Chronic Diseases Program and the MCH Title V Program work very closely, and oral health and collaborations are included in their plans.</li> <li>• Continued research collaboration with the PR School of Dentistry to gather data that supports evidence-based strategies to meet the oral health needs of the population.</li> <li>• Enactment of Law 63 that mandates the oral health assessment of children at various ages as a criteria for school enrollment.</li> <li>• Puerto Rico is very fortunate to have many committed and well-prepared dentists who care about their community and are willing to collaborate to enhance the oral health and overall health of the PR population.</li> </ul>
<p>Challenges:</p>	<ul style="list-style-type: none"> <li>• Communication and strategies can be improved through collaboration to increase transparency and demonstrate how common goals can be reached instead of working in silos.</li> <li>• There is a need to prioritize streamlining the current certification process for dentists by insurance plans. Currently this process takes months, and this is discouraging for dentists, which can result in their leaving Puerto Rico for areas that provide better business models.</li> <li>• Delays in reimbursement for services by insurance companies create financial instability for dental practices.</li> <li>• Serious oral health problems exist, including high dental caries rates among children and periodontal disease among all age groups.</li> </ul>
<p>Opportunities and Possible Next Steps:</p>	<ul style="list-style-type: none"> <li>• Develop an Oral Health State Plan with the OHC members.</li> <li>• Enhanced collaboration among the existing dental professional organizations in Puerto Rico to define and work towards common goals</li> </ul>

	<p>for the well-being of the Puerto Rico people would be significant.</p> <ul style="list-style-type: none"><li>• More active participation by the Health Department and State Dental Director with ASTDD to receive mentorship and peer support, helpful tips and potential technical support to grow the existing programs and receive guidance from other colleagues about what they are doing in their states.</li><li>• Grant writing partnerships to gain funding and support from federal and international programs.</li><li>• Establish more consistent gatherings in-person or virtual to review and formulate plans for next steps.</li></ul>
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## Priority Oral Health Topics in Puerto Rico (BEFORE COVID 19 PANDEMIC)

Priority Oral Health Infrastructure Topic	Oral Health Priority	Oral Health Sites and Workforce	Public Funding/ Funding Source	Partners and Other
<b>Special Needs Services</b>	Periodic oral health treatment for special needs patients that will possibly require specially trained personnel, special equipment or hospital setting	Mental Retardation Program of the Department of Health – Bayamón  Psychiatric Hospital Dental Clinic- San Juan  Private practices  School of Dental Medicine  San German Hospital	<ul style="list-style-type: none"> <li>• Local government funds</li> <li>• Medicaid funds</li> <li>• HRSA Grant Funds</li> <li>• Federal Block Funds</li> </ul>	University of Puerto Rico School of Dental Medicine <i>Colegio de Cirujanos Dentistas</i> Department of Health Private dentists
<b>Prevention / caries control school aged population</b>	<ul style="list-style-type: none"> <li>• School based programs – prevention, education, screening, referral and sealants</li> </ul>	<ul style="list-style-type: none"> <li>• Grant recruited dentists</li> <li>• Public schools</li> <li>• Private practices</li> <li>• Federal Qualified Centers (FQC) Community Voluntary Dental Activities</li> </ul>	<ul style="list-style-type: none"> <li>• CDC Grant Program</li> <li>• Local state funds</li> <li>• Medicaid funds for dental treatment</li> <li>• Fee for service production</li> </ul>	<ul style="list-style-type: none"> <li>• University of Puerto Rico School of Dental Medicine</li> <li>• Department of Health</li> <li>• FQC personnel</li> </ul>
<b>Prevention / caries control school aged population, remote areas</b>	<ul style="list-style-type: none"> <li>• School based programs – prevention, education, screening, referrals, silver diamine fluoride, teledentistry</li> </ul>	<ul style="list-style-type: none"> <li>• Grant recruited dentists</li> <li>• Public schools</li> <li>• Teledentistry Activities</li> <li>• Community (outreach) Voluntary Dental Activities</li> <li>• Private practices</li> <li>• Federal Qualified Centers</li> </ul>	<ul style="list-style-type: none"> <li>• HRSA Grant Program</li> <li>• Local state funds</li> <li>• Medicaid funds for dental treatment</li> <li>• Private donations</li> <li>• Oral Health Coalition</li> <li>• Collection of fees for</li> </ul>	<ul style="list-style-type: none"> <li>• University of Puerto Rico School of Dental Medicine</li> <li>• Department of Health</li> <li>• Missionary Dentists</li> </ul>

Priority Oral Health Infrastructure Topic	Oral Health Priority	Oral Health Sites and Workforce	Public Funding/ Funding Source	Partners and Other
		(FQC)	service	of Puerto Rico <ul style="list-style-type: none"> <li>PR Dental Society</li> <li>FQC personnel</li> </ul>
<b>Smoking/vaping cessation</b>	<ul style="list-style-type: none"> <li>Prevent oral/pharyngeal cancer</li> </ul>	<ul style="list-style-type: none"> <li>Health Educators</li> <li>Train the trainers – health workers</li> </ul>	<ul style="list-style-type: none"> <li>CDC</li> <li>Local government funds</li> </ul>	<ul style="list-style-type: none"> <li>Department of Health</li> <li>Smoke Free Coalition Stakeholders</li> <li>Chronic diseases personnel</li> <li>PR Cancer Center</li> </ul>

### Priority Oral Health Topics in Puerto Rico (AFTER COVID 19 PANDEMIC)

Priority Oral Health Infrastructure Topic	Oral Health Priority	Oral Health Sites and Workforce	Public Funding/ Funding Source	Partners and Other
<b>Special Needs Services</b>	Periodic oral health treatment for special needs patients that will possibly require specially trained personnel, special equipment or hospital setting	<p>Mental Retardation Program of the Department of Health – Bayamón</p> <p>Psychiatric Hospital Dental Clinic- San Juan</p> <p>PRIDE Project School of Dental Medicine</p>	<ul style="list-style-type: none"> <li>Local government funds</li> <li>Medicaid funds</li> <li>HRSA Grant Funds</li> <li>Federal Block Funds</li> </ul>	<p>University of Puerto Rico School of Dental Medicine</p> <p><i>Colegio de Cirujanos Dentistas</i></p> <p>Department of Health</p> <p>Private dentists</p>

Priority Oral Health Infrastructure Topic	Oral Health Priority	Oral Health Sites and Workforce	Public Funding/ Funding Source	Partners and Other
		Special Needs Commission – PR Dental Society		
<b>Prevention / caries control school aged population</b>	<ul style="list-style-type: none"> <li>• School based programs – prevention, education, screening, referral and sealants</li> <li>• Prevention /educational campaign and efforts</li> </ul>	<ul style="list-style-type: none"> <li>• Grant recruited dentists</li> <li>• Public schools</li> <li>• Teledentistry Activities</li> <li>• General population</li> </ul>	<ul style="list-style-type: none"> <li>• CDC Grant Program</li> <li>• Local state funds</li> <li>• Medicaid funds for dental treatment</li> <li>• HRSA Grant</li> <li>• Cares Act Funds</li> <li>• ADA Funds</li> </ul>	<ul style="list-style-type: none"> <li>• Medical Sciences Campus Project</li> <li>• University of Puerto Rico School of Dental Medicine</li> <li>• Department of Health</li> <li>• PR Covid19 Task Force</li>   <li>• Oral Health Coalition</li> <li>• <i>Colegio de Cirujanos Dentistas</i></li> </ul>
<b>Prevention / caries control school aged population, remote areas</b>	<ul style="list-style-type: none"> <li>• School based programs – prevention, education, screening, referrals, silver diamine fluoride, teledentistry</li> </ul>	<ul style="list-style-type: none"> <li>• Grant recruited dentists</li> <li>• Public schools</li> <li>• Teledentistry Activities</li> <li>• Community Voluntary Dental Activities</li> </ul>	<ul style="list-style-type: none"> <li>• HRSA Grant Program</li> <li>• Local state funds</li> <li>• Medicaid funds for dental treatment</li> <li>• Private donations</li> <li>• Oral Health Coalition</li> </ul>	<ul style="list-style-type: none"> <li>• Campus Project</li> <li>• University of Puerto Rico School of Dental Medicine</li> <li>• Department of Health</li> <li>• PR Covid19 Task Force</li>   <li>• Oral Health Coalition</li> <li>• <i>Colegio de Cirujanos</i></li> </ul>

Priority Oral Health Infrastructure Topic	Oral Health Priority	Oral Health Sites and Workforce	Public Funding/ Funding Source	Partners and Other
				<i>Dentistas</i>
<p><b>Prevention and oral health care to general population. Promote oral care at home, safety and importance of professional dental visits.</b></p>	<ul style="list-style-type: none"> <li>• Community activities</li> <li>• Educational campaign</li> </ul>	<ul style="list-style-type: none"> <li>• All health professionals joint efforts</li> </ul>	<ul style="list-style-type: none"> <li>• Local government</li> <li>• Cares Covid19 fund</li> <li>• Federal emergency funds</li> </ul>	<ul style="list-style-type: none"> <li>• Multidisciplinary efforts of health and communications professionals</li> <li>• Medical Sciences Campus Project</li> <li>• University of Puerto Rico School of Dental Medicine</li> <li>• Department of Health</li> <li>• PR Covid 19 Task Force</li> <li>• Oral Health Coalition</li> <li>• <i>Colegio de Cirujanos Dentistas</i></li> </ul>
<p><b>Smoking/vaping cessation</b></p>	<ul style="list-style-type: none"> <li>• Prevent oral/pharyngeal cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Health Educators</li> <li>• Train the trainers – health workers</li> <li>• Educational material</li> </ul>	<ul style="list-style-type: none"> <li>• CDC</li> <li>• Local government funds</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Health</li> <li>• Smoke Free Coalition Stakeholders</li> </ul>

Priority Oral Health Infrastructure Topic	Oral Health Priority	Oral Health Sites and Workforce	Public Funding/ Funding Source	Partners and Other
				<ul style="list-style-type: none"> <li>• PR Cancer Center</li> <li>• PR Covid 19 Task Force</li> </ul>