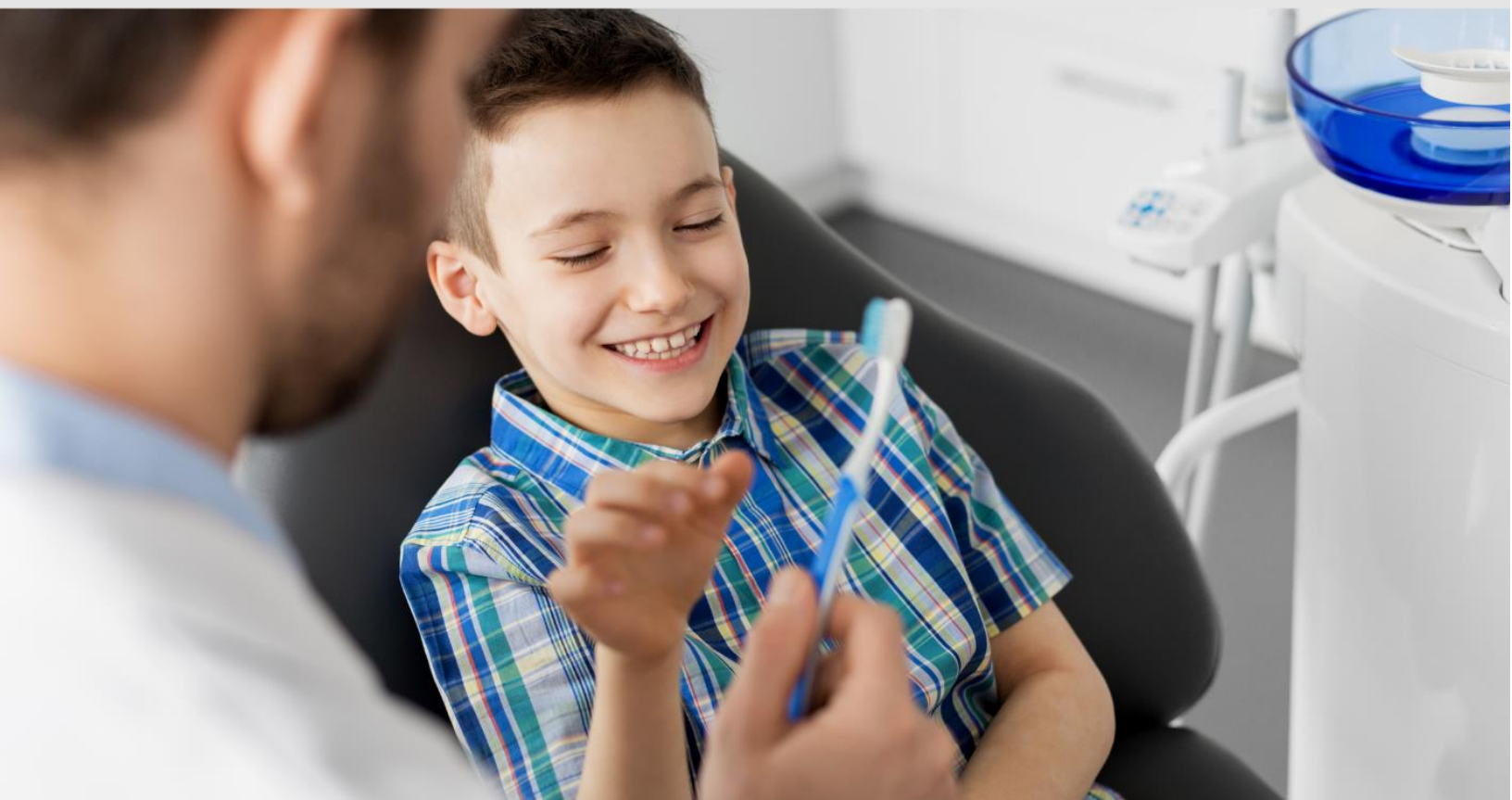


PUERTO RICO

Compliance Oral Health Certificate

REPORT YEAR 3 (2020-2021)



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PR-Compliance Oral Health Certificate Report, Y3

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INTRODUCTION

Puerto Rico has a high prevalence of early childhood caries. Compared to the United States, Puerto Ricans living in the Island lag many health indicators, with disparities increasing even more in low-income communities. Various studies provide us with the following data: Prevalence of Early Childhood Caries (ECC) in Puerto Rico ranges between 47% to 53%, compared to 20% to 25% in the United States (Elías-Boneta et al., 2006). In addition, in a study conducted by the Puerto Rico Department for Health among children 8-9 years old attending private and public schools, the researchers found an overall prevalence of caries of 40% and only 17% of children had sealants. When comparing unmet dental needs, the researchers found that 83% of children attending public school needed some dental care compared to 27% attending private school. (Puerto Rico Department of Health, 2008)

In 1997, Elías-Boneta et al. developed a study to estimate the prevalence of pit and fissure sealants on first permanent molar in twelve-year old's living in Puerto Rico. This study included a sample of 1,435 students from 71 public and private schools islandwide. The study found that boys (5.6%) had a higher prevalence of dental sealants in the first permanent molars than girls (3.0%). Furthermore, Elías-Boneta and colleagues revealed a health disparity on the prevalence of dental sealants in the first permanent molars between students of urban-private school (11.0 %) and urban-public (2.5%) or urban-rural schools (3.4%) (Elías-Boneta et al, 2006). A similar study was performed on Puerto Rico in 2011, with a representative sample of 1,587 school-enrolled children. Some of the characteristics of the sample population were that 53% of participants were girls and 77 % attended public schools. The aim of this study was to make a comparison between the study performed in 1997 and the one performed in 2011 in order to explore changes in oral health outcomes. In summary, this study found a reduction in caries prevalence (81 to 69%), mean decay-missing-filled teeth (DMFT) scores (3.8 to 2.5), mean DMFS scores (6.5 to 3.9), and mean Significant Caries (SiC) Index (7.3 to 5.6) in both private and public schools, with a more prominent decrease in private schools (Elías-Boneta et al, 2016).

In order to mitigate the oral health burden in the children population of PR, the government of PR passed the ***Law to Ensure Access to Oral Health Services for All Patients in Puerto Rico*** ([Law 63 of 2017](#)). This law establishes the oral health care in children as public policy. Furthermore, the law institutes mandatory oral examinations and periodic dental cleanings along with a compulsory Oral Health Certificate (OHC) in public and private schools. It requires that students from grades K, 2nd, 4th, 6th, 8th and 10th submit an OHC at the time of school enrollment, in order to assure that the student went to the dentist in the past year. The task of monitoring the compliance of this law was assigned to the PR-Oral Health Program. **The aim of this report is to describe the results of the third year of implementation of the Law 63 of 2017.**

SYSTEM DEVELOPMENT OF OHC AND REPORT PROCESS

On January 2, 2017, the Senate of Puerto Rico proposed the *Senate Project 69-2017* in order to mitigate the oral health burden in the children population of Puerto Rico (Figure 1). After evaluating the presentations on [March 7, 2017](#) of the College of Dental Surgeons of Puerto Rico, Dr. Elaine Pagán – Pediatric Dentist in representation of the Oral Health Coalition of Puerto Rico and a Dental State Officer – the Department of Family Affairs and the Health Department of Puerto Rico, legislature passed the bill. On August 3, 2017, after being signed by the Governor of Puerto Rico, the bill then became the [Law to Ensure Access to Oral Health Services for All Patients in Puerto Rico \(Law 63 of 2017\)](#). This law establishes the oral health care in children as public policy. Furthermore, the law institutes mandatory oral examinations and periodic dental cleanings along with a compulsory Oral Health Certificate (OHC) in public and private schools. It requires that students from grades K, 2nd, 4th, 6th, 8th and 10th submit an OHC at the time of enrollment, in order to assure that the student went to the dentist in the past year. In September 2017, the island was hit by the natural phenomenon – Hurricane María – which destroyed a great part of the island’s infrastructure. After regaining stability, the Department of Health passed [Administrative Order 393](#) to postpone the implementation of the law from the scholar year 2017-2018 to the second semester of scholar year 2018-2019. By this same date, hearings were seen to establish the necessary regulations in order to properly carry out this law’s enforcement. In

November 2018, the proposed regulation for compliance with the law was approved. The Oral Health Program at the Department of Health developed a paper report system to monitoring the compliance of Law 63 of 2017. As part of the system the following document was developed in collaboration with the Association of Private School, the Department of Education, the Coalition of Oral Health of Puerto Rico, the College of Dental Surgeons of Puerto Rico and Puerto Rico Oral Health Program: [Form SO-001: Oral Health Certificate](#); *Form SO-002: Oral Health Report Process*; *Form SO-003: Oral Health Certificate Compliance Report*; *Form SO-004: Oral Health Certificate Non-Compliance Report*; *Form SO-005: Oral Health Certificate Compliance by Municipality (Department of Education Only)*; and *Form SO-006: Instruction to Fill Oral Health Certificate*.

The OHC report process was established in the *Form SO-002: Oral Health Report Process* (Figure 2). The process begins when students from grades K, 2nd, 4th, 6th, 8th and 10th visit a PR licensed dentist in order to receive an oral health examination. After performing the examination, the dentist completes the OHC (*Form SO-001*) using the *Form SO-006: Instruction to Fill Oral Health Certificate*. The private and public schools receive the form SO-001 from the parent and develop the OHC Compliance Report (*Form SO-003*) to submit it via email or mail to the Oral Health Program of the PR Department of Health **every 1st of October**. The public schools must also submit the compliance report (*Form SO-003*) to the PR Department of Education. Then, the private and public schools complete the non-compliance report (*Form SO-004*) and submit by email or mail to the Oral Health Program of the PR Department of Health and the PR Department of Family **every 1st of December**. In addition, in order to complete the process, the educational regions of public schools submit the Municipality Report (*Form SO-005*) to the Oral Health Program on the **31st of December**. The Municipality Report summarizes the public OHC compliance by municipality.

The first year of OHC implementation started on January 2019 and the compliance and non-compliance report ended on May 2019. Due the disaster recovery after Hurricane Maria along with the restructuration in the Puerto Rico Department of Education, the timeline of the first year of report process was adjusted (Figure 2). During this process a data base was created

to collect information of the OHC reports. The data entry started at June 2019 and the analysis was performed in mid-July 2019.

The second year of OHC implementation started on August 2019 and the compliance and non-compliance report ended on March 2020. The reports of the second year complied with the scheduled timeline (Figure 2). The data entry started at October 2019 and the analysis was performed in December-March 2020.

Due the limitations of COVID-19, the **third year of OHC implementation** started on January 2021 and the compliance and non-compliance report ended on May 2021. The Department of Health passed Administrative Order [447](#) & [476](#) to postpone the implementation of the law from the scholar year 2020-2021 to the second semester of scholar year.

As a reflection of the development of Oral Health Certificate System, a participatory and inclusive development process from the Association of Private School, Delegate from the Department of Education, Coalition of Oral Health of Puerto Rico, College of Dental Surgeons of Puerto Rico and Puerto Rico Oral Health Program, were a key in the implementation.

Figure 1: System Development of Oral Health Certificate

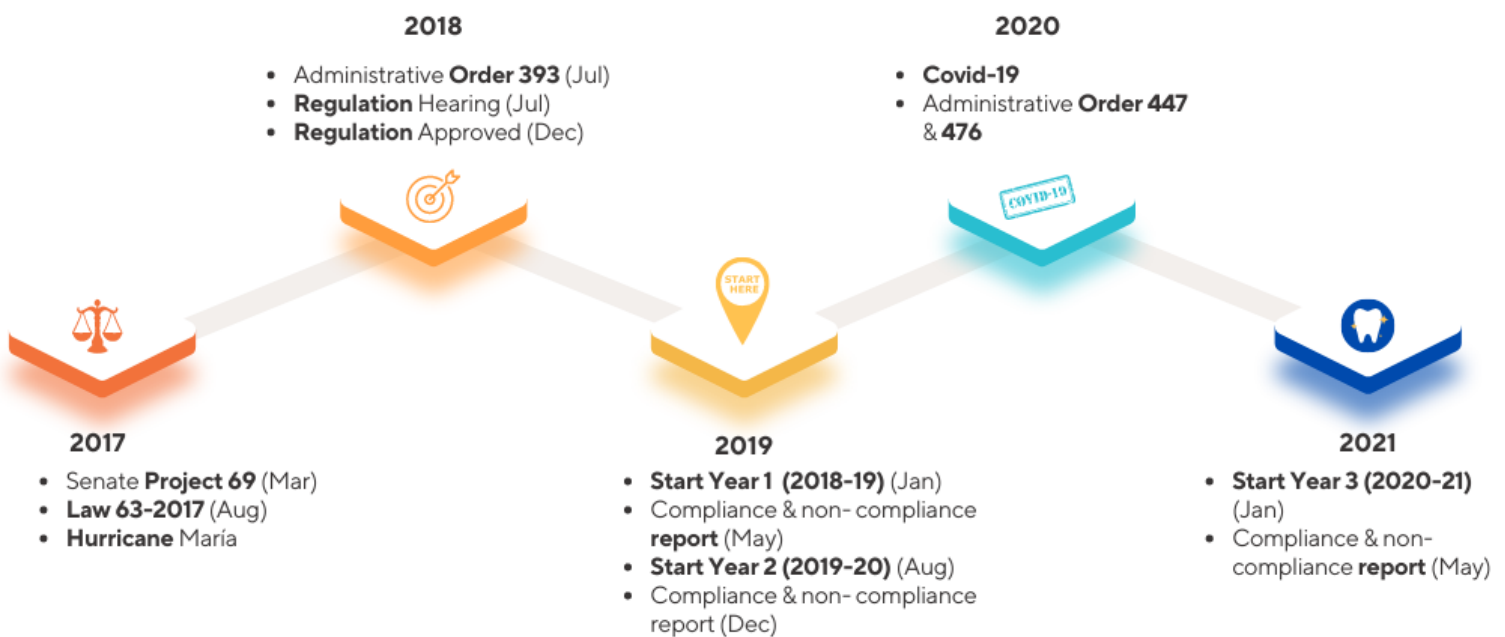


Figure 2: Oral Health Certificate Report Process



OHC=Oral Health Certificate; PRDoH= Puerto Rico Department of Health; PRDoE= Puerto Rico Department of Education; Puerto Rico Department of Family

METHODS

ANALYSIS

A paper report system was developed in order to track the compliance of OHC reports. The category of the educational region was created using the PRDoE regions. The total of students enrolled by grades in the scholar year 2020-2021 was provided by the [for public schools](#) and the [Department of State](#) for private schools. *Excel Spreadsheet* was used to create the database and performed the analysis. Frequency and percent were used to describe compliance reports at school year 2020-2021.

RESULTS

THIRD YEAR RESULTS

During the scholar year 2020-2021, a total of 19,678 students (17.8%) from public schools and 15,152 students (32.8%) from private schools submitted the OHC (Table 1.1 & 1.2). A total of 34,830 students submitted the OHC, representing the 22.2% of the students from grades K, 2nd, 4th, 6th, 8th and 10th enrolled for the scholar year 2020-2021 (Figure 3).

In public schools, 1,637 students required urgent dental services and 1,977 of them have a dental appointment (Table 1.3). In addition, in private schools, 268 students required urgent dental services and 331 of them have a dental appointment (Table 1.4). Approximately, 1,936 students from public schools and 688 from private schools were exempted to submit the OHC (Table 1.5).

A total of 1,106 (75.0%) schools submitted the compliance report, 796 (94.6%) public and 310 (49.0%) private (Table 1.6). From the educational region of public schools, San Juan had the lower percent of schools that submitted the OHC compliance report. Even so, the private schools from the educational region of Arecibo had the highest percent of schools that submitted the OHC compliance report, followed by San Juan.

Figure 3: Percent of students from grades K, 2nd, 4th, 6th, 8th and 10th that submitted OHC from Public and Private Schools in the third year (2020-2021)

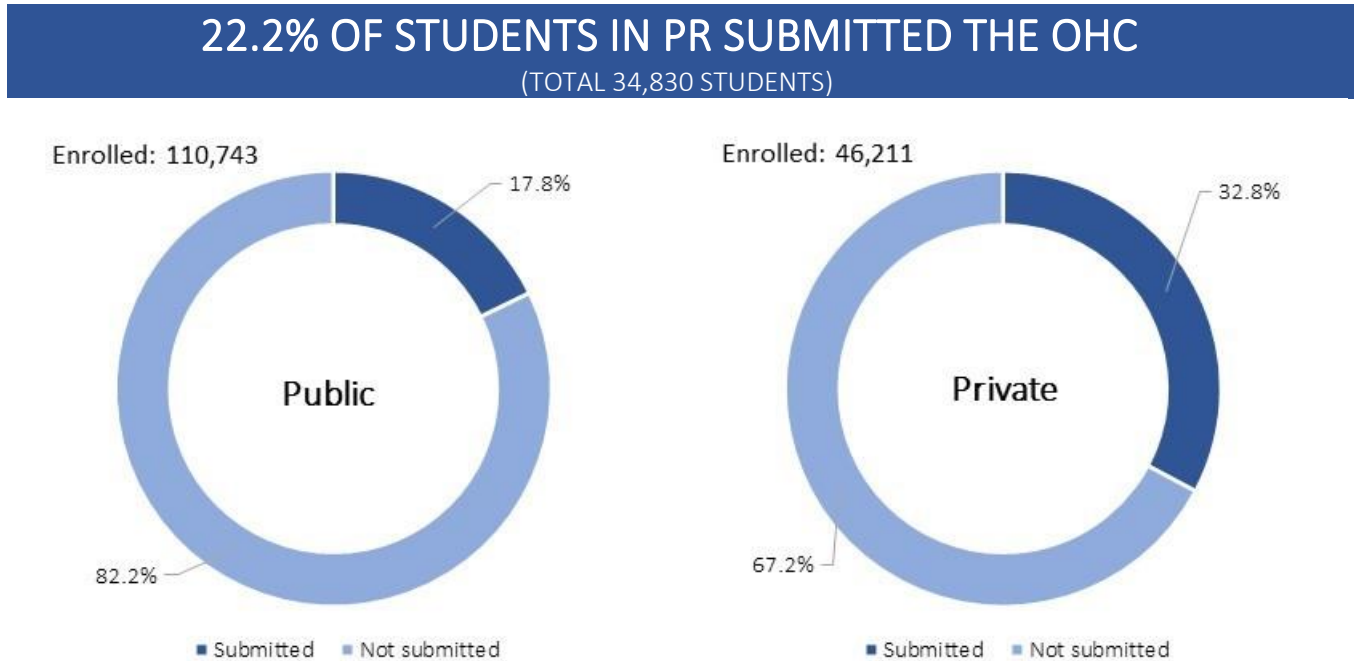


Table 1.1 Students who deliver the OHC in public schools for the third year (2020-2021)

Compliance Percent by PRDoE Regions																					
Third Year (January 2020 - May 2021)																					
Publics																					
Regions PRDoE	Kindergarden			Second			Fourth			Sixth			Eighth			Tenth			Total students		
	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D
Arecibo	19.7%	450	2,289	10.4%	378	3,634	13.7%	379	2,770	12.2%	354	2,901	12.8%	383	2,987	12.3%	381	3,107	13.1%	2,325	17,688
Bayamón	18.7%	424	2,268	16.6%	419	2,528	18.0%	468	2,604	16.3%	451	2,763	15.4%	428	2,780	10.1%	302	2,995	15.6%	2,492	15,938
Caguas	17.2%	335	1,947	13.8%	287	2,086	13.3%	295	2,218	14.3%	310	2,166	14.4%	341	2,373	12.2%	359	2,952	14.0%	1,927	13,742
Fajardo	30.0%	599	1,999	22.4%	521	2,323	19.1%	481	2,515	25.3%	607	2,399	22.4%	629	2,803	15.2%	487	3,197	21.8%	3,324	15,236
Mayagüez	22.4%	530	2,361	14.1%	349	2,473	12.9%	369	2,862	13.2%	399	3,012	9.5%	314	3,315	18.2%	607	3,332	14.8%	2,568	17,355
Ponce	30.1%	672	2,233	20.6%	570	2,764	21.0%	596	2,843	18.2%	551	3,021	13.9%	453	3,269	15.9%	534	3,357	19.3%	3,376	17,487
San Juan	31.0%	559	1,806	30.2%	628	2,082	27.6%	549	1,990	29.4%	629	2,142	21.7%	609	2,808	28.0%	692	2,469	27.6%	3,666	13,297
Total	23.9%	3,569	14,903	17.6%	3,152	17,890	17.6%	3,137	17,802	17.9%	3,301	18,404	15.5%	3,157	20,335	15.7%	3,362	21,409	17.8%	19,678	110,743

%= Percent of students who delivered the oral health certificate; N=Number of students who delivered the oral health certificate; D= Number of students enrolled on scholar year 2020-2021

Denominator Source: Formulario (K-12), Plataforma Electrónica de Datos sobre Educación (PLEDUC) 2020-21. JIP, Departamento de Estado.

Table 1.2 Students who deliver the OHC in private schools for the third year (2020-2021)

Compliance Percent by PRDoE Regions																					
Third Year (January 2020 - May 2021)																					
Privates																					
Regions PRDoE	Kindergarden			Second			Fourth			Sixth			Eighth			Tenth			Total students		
	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D	%	N	D
Arecibo	34.4%	235	684	31.2%	268	858	34.3%	285	832	35.5%	328	925	35.0%	363	1,038	34.9%	354	1,013	34.3%	1,833	5,350
Bayamón	24.1%	183	758	28.0%	243	867	28.1%	244	868	26.7%	238	892	26.7%	273	1,023	21.1%	225	1,064	25.7%	1,406	5,472
Caguas	29.2%	230	788	28.6%	228	798	28.3%	258	913	32.2%	306	950	27.4%	303	1,106	24.1%	277	1,150	28.1%	1,602	5,705
Fajardo	28.4%	156	549	26.5%	164	618	34.2%	220	643	31.4%	208	663	30.1%	200	664	42.8%	227	530	32.0%	1,175	3,667
Mayagüez	33.1%	285	860	33.8%	330	976	34.6%	320	926	30.4%	303	997	30.9%	324	1,049	20.3%	205	1,012	30.4%	1,768	5,820
Ponce	18.0%	126	701	17.6%	125	711	19.3%	131	678	18.4%	137	743	12.1%	107	886	44.0%	334	759	21.4%	960	4,478
San Juan	41.1%	838	2,040	40.0%	922	2,305	40.3%	1,039	2,581	43.0%	1,132	2,634	43.5%	1,341	3,084	36.9%	1,136	3,075	40.8%	6,408	15,719
Total	32.2%	2,053	6,380	32.0%	2,280	7,133	33.6%	2,497	7,441	34.0%	2,652	7,804	32.9%	2,911	8,850	32.1%	2,758	8,603	32.8%	15,152	46,211

%= Percent of students who delivered the oral health certificate; N=Number of students who delivered the oral health certificate; D= Number of students enrolled on scholar year 2020-2021

Denominator Source: Formulario (K-12), Plataforma Electrónica de Datos sobre Educación (PLEDUC) 2020-21. JIP, Departamento de Estado.

Table 1.3 Treatment and orientation in the third year of OHC (2020-2021) by regions in public schools

Public				
PRDoE Regions	Orientation Prevention	Oral Evaluation	Need urgent treatment	Need urgent treatment & have dental appointment
Arecibo	6,285	2,403	128	85
Bayamón	2,492	2,492	180	176
Caguas	4,035	1,769	132	60
Fajardo	3,308	3,308	464	226
Mayagüez	2,397	2,569	61	38
Ponce	4,340	2,877	303	277
San Juan	4,209	2,038	369	1,115
Total	27,066	17,456	1,637	1,977

Table 1.4 Treatment and orientation in the third year of OHC (2020-2021) by regions in private schools

Private				
PRDoE Regions	Orientation Prevention	Oral Evaluation	Need urgent treatment	Need urgent treatment & have dental appointment
Arecibo	2,310	1,595	25	34
Bayamón	1,377	1,541	39	84
Caguas	2,215	1,573	18	32
Fajardo	1,646	1,101	12	27
Mayagüez	1,957	1,726	20	44
Ponce	1,163	1,030	31	19
San Juan	5,346	5,838	123	91
Total	16,014	14,404	268	331

Table 1.5 Number of exempted students in the third year (2020-2021)

Region PRDoE	Public	Private
Arecibo	3	219
Bayamón	1	1
Caguas	1	22
Fajardo	0	85
Mayaguez	0	0
Ponce	6	0
San Juan	1,925	361
Total	1,936	688

Table 1.6 Schools who submitted the OHC report for the third year (2020-2021)

Region PRDoE	Publics			Privates		
	Total of Schools			Total of Schools		
	%	N	D	%	N	D
Arecibo	99.0%	100	101	53.7%	36	67
Bayamón	95.8%	113	118	43.4%	40	92
Caguas	101.7%	119	117	47.0%	40	85
Fajardo	105.9%	125	118	45.7%	27	59
Mayagüez	96.6%	113	117	52.3%	44	84
Ponce	98.6%	137	139	40.9%	25	61
San Juan	67.9%	89	131	53.2%	98	184
Total	94.6%	796	841	49.0%	310	632

%= Percent of schools who submitted the OHC report; N =Number of schools who submitted the OHC report; D= Number of active schools during scholar year 2020-2021.

Denominator Source: Compliance Report by Regions of OHC | Formulario (K-12), Plataforma Electrónica de Datos sobre Educación (PLEDUC) 2020-21. JIP, Departamento de Estado.

CONCLUSION

During the third year, the public schools had a lower percent of students in submitting the OHC than private schools. However, public schools had a higher percent of schools that submitted the OHC compliance report compared to private schools.

During the third year, in public and private schools, a decreased in students reporting OHC was observed, compared to the second year (Ruiz, et al., 2020). Some unexpected events and limitations could influence the non-reported OHC by the schools. For example, the impact of COVID-19 and virtual classes.

The Oral Health Program will be monitoring the compliance trend to observe if this difference persists. A digital system will be developed in order to improve the compliance monitoring. In addition, promotion and education efforts about compliance with Law 63 of 2017 will be continued.

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