School-Based Comprehensive Oral Health Services Grant Program

H47MC23166

September 30, 2011 – September 29, 2015

FINAL REPORT -

This final report includes documentation of project activities and the resulting lessons learned and accomplishments achieved throughout the entire project period from September 30, 2011 through September 29, 2015.
(Report prepared by Donna Kritz-Silverstein, Ph.D., February 5, 2016)

A. Project Identifier Information

- Grant Number: **H47MC23166**
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B. Progress

1. Planning and Implementation:

Delivery System Design

At the time this project was funded, the UCSD Student-Run Free Clinic Project was providing transdisciplinary care including medical, dental, law, social work and pharmacy services at three clinics located in San Diego County. Under the UCSD Student-Run Free Dental Clinic Project, dental care was provided by volunteer licensed dentists and a paid Dental Associate; pre-dental students from the UCSD Pre-Dental Society served as assistants to the dentists and help manage and run the clinics.

In addition to the three medical clinics, there was a medical clinic located at Golden Avenue Elementary (GAE) School, which also had a Comprehensive Wellness Program. This project was designed in recognition of the need to also provide dental care to the children attending (GAE) as part of this Comprehensive Wellness Program. Funding from this HRSA grant was used to expand the existing school-based health center to include a dental clinic. The dental clinic was intended improve access to care by serving the needs of children in the elementary and middle school and their families, and to provide them with a dental home.

Our delivery system was designed to screen all children whose parents provided permission for screening, to provide comprehensive treatment including x-rays, amalgam and composite fillings, endodontics, extractions, preventive care (sealants and fluoride treatment, oral prophylaxis) to children without who did not have insurance and did not have a dental home. In addition, we sought to provide oral health education.

We were funded beginning September 30, 2011 and although there was a medical clinic already in existence, it was necessary to build a dental clinic. We worked in partnership with the Lemon Grove School District, their architects and their contractors as well as with contractors from a dental company (Burkhart) to create and equip the clinic. This entailed numerous meetings and modifications of plans as well as installing plumbing and sinks to ensure an adequate water supply and upgrading electricity to accommodate the needs of dental chairs. Given the rules and requirements of the school district and the need for the school district to do the physical work of modifying the space, it took far longer than expected to open the clinic. One lesson learned is that even with all members of the school district on board with the needs of the clinic, the architects and contractors from the school district schedule projects months in advance and there may be a waiting time or 6-8 months before the project can be started.

In late May of 2012, we opened a temporary, 2-chair dental clinic and began screening and treating children attending the elementary (K-6th grade) school two days per week. This physical space was shared with the medical clinic which operated on alternate days. The chairs were movable and at the end of each clinic session had to be pushed up against the wall to allow more space for the medical clinic.

In September, 2012 the school re-opened as Lemon Grove Academy of Science and Humanities, a combined elementary and middle school with grades K-8. Existing buildings of a former middle school adjacent to the elementary school (which had been vacant for two years) had been refurbished and modernized. The school district identified the rooms in use as administrative offices housing the Principal, school nurse, and administrative staff as the site of a new, permanent 6-8 chair dental facility.

This site was advantageous as in addition to its entrance within the school, it also has its own entrance that enables the clinic to stay open after school hours in order to better accommodate family members who need to be present when the children are treated. However, due to various delays, this site was not vacated by the Principal and other staff members until May 2013. We had hoped that construction of the new dental clinic could occur over the summer and that the clinic would be functional by the time school opened in September, 2013. However, due to various delays, development of this space did not begin until fall and continued through January 2014. Again, a lesson learned is that school architects and contractors are very busy and even though the project is approved by the school board, it can take many months before the district contractors are available to complete the project.

During that period, we met several times with architects from the school district and contractors from the dental company (Burkhart) to determine how to best develop the space, and configure it for a 6-8 chair dental clinic with space for a medical clinic while meeting all the codes and regulations. An additional water line was brought into the space, which required groundbreaking and other modifications to the space were made. Funds were obtained from the San Diego County Dental Society to cover construction costs and grant funds from the San Diego County Employees' Charitable Organization (CECO*)* were used to purchase a new compressor and vacuum system which was installed. A grant from A-Dec secured us two top of the line A-Dec dental chairs and units, and a third was bought at a significant discount. Three portable chairs were purchased. As a final step, the previously donated or purchased dental chairs, units and furniture were moved into the space and our new clinic opened in February 2014. In the summer of 2015 we completed the final phase of clinic renovations by installing partitions around two chairs to create two quiet rooms.

We continue to see patients in this clinic. Care is provided by a our Assistant Clinical Director (formerly Associate Dentist, Dr. Sussi Yamaguchi) and a licensed dental fellow (whose position is funded through a different HRSA grant). A volunteer dentist is scheduled to see patient si the clinic starting in December 2015. Pre-dental students from the UCSD Pre-Dental Society serve as chair-side assistants and manage the clinic. Most of our dentists and volunteer pre-dental students are bilingual. Each year, all students whose parents have not opted out, have a screening. This occurs grade by grade and within grades, classroom by classroom until all children are screened. In addition, Lemon Grove has a bilingual/bicultural Parent–Community Liaison who helps identify children in need of services and follows-up with parents about the needs identified during screenings. Treatment is comprehensive (including preventive and restorative care) and rendered as

needed to children who are uninsured and do not have a dental home. (Children identified with needs at screenings but do have insurance or a dental home are referred to their provider.)

Part of our delivery system design also includes the provision of oral health education. Please see the Patients/Community Education section below for more detailed information about the oral health education of parents and children.

Interdisciplinary Care

We follow a transdisciplinary model where medical care and dental care are given in the same location. Medical students are taught about the importance of good oral health and pre-dental students are taught about the importance of good medical health. The student managers and the teams staffing the medical and dental clinics are in communication with one another and it is very easy for a patient in the medical clinic to obtain a referral to the dental clinic and vice versa. Medical and Dental Clinics still run on alternate days because they operate out of the same physical space.

Patient/Community Education

Lemon Grove Academy of Science and Humanities is fortunate to have a bilingual/ bicultural Parent Community Liaison who works as part of the interdisciplinary team to develop and disseminate outreach and educational materials that support and promote health and wellness activities. She also coordinates with parent volunteer groups and school staff to identify children and families in need of services. Targeted outreach is conducted through phone calls or onsite meetings with individual families whose child has been identified as having dental needs while school-wide outreach and education is provided through flyers, brochures and notices sent home.

All outreach and educational materials are routinely developed in English and Spanish. UCSD-Student Run Free Clinic Project had already developed these materials for the Baker Elementary site; these materials were adapted for use at the Lemon Grove clinic.

The Dental Health Ambassadors program consists of a group of UCSD Pre-dental Society members who volunteer to teach children about factors affecting oral health as well as proper brushing and care of their teeth. Members of the Dental Health Ambassadors visit all the elementary school classrooms and do presentations. For the past three years, their presentations have also been expanded and integrated into a week-long class given in the fall and spring to 7th and 8th graders who are enrolled in a health elective. Children are taught about tooth anatomy, dental hygiene, careers within dentistry, and the importance of staying in school though presentations, discussions and hands-on activities.

An abstract partially based on this educational program has been accepted for a poster presentation at the 2016 ADEA Annual Session and Exhibition, March 12-15 in Denver, Co.

Additional educational information about fluoride, sealants, regular dental examinations, and nutrition is provided to families through brochures and pamphlets distributed by clinic staff as well as discussed during consultations. The school Wellness teacher, funded by a grant from a private foundation, also provided classroom based prevention education to students.

2. Continuous Quality Improvement

Much of the first year of fundingwas spent obtaining the equipment and supplies necessary to ensure functionality of the clinic. Part of the next year was devoted to developing plans for an expanded clinic. Throughout all years of this grant, we focused on measures to improve screening and treating children within the clinic. To do this, we have had regular program staff meetings approximately once per month throughout the year. In addition, we have also had an Advisory Committee meeting that included the Dental Associate as well as members of the medical clinic. We have also met with the ELAC committee at the school to address their questions and concerns as well as to explain our programs.

As the clinic began running consistently, we began implementing internal quality control measures (including a referral plan), and sharing qualitative and evaluative feedback at meetings. We continue to have program staff meetings approximately every month as well as Advisory meetings every trimester. These mechanisms allow us to continue to improve services.

Several steps were taken to improve services and correct deficiencies found. For example, during the first year of funding, a notice was sent home to parents announcing the opening of the dental clinic (see Appendix A) and an opt-in form was sent asking for permission to perform a comprehensive screening exam including-rays (see Appendix A). However, we encountered a problem in that children often failed to give the opt-in permission form to their parents or to bring the signed form back to school. Furthermore, taking x-rays necessitated that a parent had to be present, and this often proved to be difficult for them to schedule. These circumstances plus the fact that the clinic opening had been delayed until the spring (the eighth month of funding) and then the school was completely closed during the ensuing summer months, caused our screening numbers to be lower than expected during the first year of this grant. One lesson learned from this was that to improve our screening rate, it was necessary send home an opt-out permission form for a visual dental screenings (see Appendix A). This form informs parents that we would be doing a visual screening without x-rays, of their child's mouth. Parents are requested to return the form (within 10 days) only if they do *not* want their child screened. The opt-out method is currently used by the school for other screenings such as vision, hearing and speech. We send this form home with children grade by grade, until screening has been completed for all classes. Screening the children in whole classes at one time is a process that enables us to screen more children per day. Each child receives a written notification of the findings to bring to their parents (see Appendix A). Parents of children who have dental treatment needs identified also receive a phone call from either the Community-Parent Liaison or one of the dental assistants who communicates the need for care directly

with the parent, makes an appointment for x-rays and treatment if the parent desires and follows up with written communication.

Having the clinic operate only two days per week also posed problems as the Community-Parent Liaison and assistants were not always available to handle return phone calls from parents who wanted to schedule or re-schedule treatment. Another lesson learned was that to overcome this barrier, we needed to install a google answering system. This enable our pre-dental assistants to check messages remotely and return phone calls promptly to schedule and reschedule children as needed for clinic appointments.

Parents are required to be with their child at the clinic when any treatment, even preventive treatment, is rendered. It is often a challenge to get working parents to come in during the day to give permission and to be present during treatment, and this has proved to be a barrier. If a child missed an appointment because the parent was not available to accompany their child, the procedure was not done until the parent was contacted and the child could be rescheduled. A lesson learned from this was that there is a need for late afternoon and early evening appointments. Many of these parents are unable to miss work to take their child for a dental appointment. Having extended clinic hours into the late afternoon and early evening on at least one day per week has helped alleviate this situation. Another lesson learned from this is that having a clinic with street access enables us to stay open later in the day if needed, which also makes it more convenient for working parents to schedule their child's appointments and enable us to provide treatment to more children. We began staying open later in the day on Tuesdays during the summer of 2014.

Given that this is a school based oral health clinic, we experienced a problem in that the school was closed for vacation during the majority of the summer even though we had the personnel available to deliver care. A lesson learned from this was the need for street access to the clinic so that clinic operations and appointments are not limited by the school calendar. The permanent location of the clinic on middle school campus afforded us street access and allows us to operate independently of the school and their academic schedule.

Another area that we found in need of improvement was the time that it was taking to get children from their classroom and bring them to the clinic. Initially, the parent of a child with an appointment would show up at the clinic. A chair-side assistant from the clinic would then pick up the child from their classroom and escort them to the dental clinic. This resulted in a waste of time for assistants in walking back and forth to classrooms when their time could have been better used in assisting in procedures. The lesson learned from this was that parents should be required to pick up and sign out their child from their classroom and bring them to the clinic. This way the assistants do not waste time, parents and children arrive at the same time rather than causing the parent to wait, and care can be delivered with greater efficiency as more assistants are available.

A final lesson learned is that we cannot treat all children as some will have needs for which we are just not equipped to deliver care. For instance, if a child requires a great deal of work (i.e., stainless steel crowns and multiple pulpotomies), they are referred to one of the community health care clinics which can provide treatment with sedation. This is a

level of pediatric dental specialty service for which we do not have the resources/expertise to directly provide at the school clinic. From a safety and best practice perspective, this care is better provided at a local community health center. Children who have behavioral management problems or who are so anxious that we know care cannot be accomplished without sedation are also referred as this is beyond the scope of the clinic at present.

3. Sustainability

The overall Student-Run Free Clinic Project has a major focus of developing sustainability. We have been successful in obtaining other grant funding and donations for equipment and supplies and to support the salaries of the Assistant Dental Director and Dental Fellow. In addition, we have successfully developed MOUs with dental schools that will allow their students to work under supervision in our clinics to provide care. This year was focused on expanding the clinical space. We have volunteer dentists who are willing to provide services in our clinics and a cadre of pre-dental students who volunteer as chair-side assistants and run and manage the clinic. In the coming year, we will investigate protential mechanisms through which we can improve our sustainability by developing a process to obtain reimbursement from Medi-Cal.

C. Evaluation

This section presents the original goals and objectives or planned activities and the progress made. It will also present clinic statistics relating to delivery of care such as the numbers of patients seen, student volunteer hours and dollar value of care delivered.

<u>Goals</u>

Goal 1: To work in partnership with UCSD SRFCP to extend the current school-based health clinic at Golden Avenue Elementary to include a comprehensive oral health clinic (Dental Clinic) that will serve students at Golden Avenue Elementary and Lemon Grove Middle schools and their siblings aged 0 to 14.

This goal has been fully accomplished. The dental clinic has been in operation since May 2012, is currently still in operation, and is expected it to continue operating into the future in partnership with the UCSD SRFCP. The clinic provides comprehensive oral health care to the children at Lemon Grove Academy (the public Pre-K – 8th grades formerly known as Golden Avenue Elementary and Lemon Grove Middle Schools) as well as their families.

Goal 2: To integrate the Dental Clinic with other school based health and wellness programs through site based coordination, planning and parent engagement.

This goal has been fully accomplished. While the dental clinic runs on different days than the medical clinic, through the clinic managers, we have created a means of referral from one clinic to the other as needed. We implemented and continue to provide oral health educational programs within existing wellness programs. Each semester, middle school students taking a health elective learn about dentistry and oral health. Pre-Dental Society students run a program called the Dental Health Ambassadors (DHA). These

students go into the classrooms and teach children about oral health and how to take better care of their teeth. We have sent informational flyers home to parents along with a needs survey (Appendix A). We have an excellent parent-child liaison in place, Esmeralda Martinez Preval, who is trusted by the community and employed by the school district. She has worked with the school and the clinic for many years. She helps ensure that parents are informed of their child's needs following screening and that the child gets the care needed. An informational sheet for parents concerning children's oral health was created (see Appendix A).

Goal 3: To provide culturally and linguistically sensitive oral health services that include education, prevention and restorative treatment to underserved children.

This goal has been fully accomplished. Both dentists who consistently work in our clinic (the Assistant Dental Director and Dental Fellow) are bilingual (English/Spanish) as are many of our pre-dental students who serve as assistants and manage the clinic. Materials such as flyers, notices and letters are translated into Spanish. Because many languages other than Spanish and English are spoken, parent liaisons are used to communicate with parents in their native languages to ensure they understand the importance of oral health. To date, almost all of the students seen in the clinics were English speakers.

As described above, we have an excellent Community-Parent Liaison who has been a promotora with us for many years. She builds a bridge of trust between the patients and the providers in the clinics and ensures that those providing care in the clinics function in a culturally sensitive and humble manner. There are also many involved parent volunteers at the school who are committed to providing culturally sensitive services.

As described above, the students in the UCSD Pre-Dental Society have a program known as the Dental Health Ambassadors. The pre-dental students who participate in this go to the elementary schools to teach about oral hygiene and serve as role models. They have talked to the elementary school and middle school students, taught them about oral health and served as role models for them impressing upon them the importance of staying in school and receiving an education.

Goal 4: To provide an opportunity to dental professionals to volunteer time at the Dental Clinic, to provide preventive and restorative treatment to children and mentorship/training to dental students.

Our clinic operates predominantly during the day; during the funding period of this grant, only the Assistant Dental Director (formerly the Dental Associate) and Dental Fellows (funded from a separate grant) have provided treatment. A volunteer dentist has been scheduled to help deliver care beginning in December 2015. Having the dental clinic open in the evening will allow other dental professionals the opportunity to volunteer and provide treatment to children and mentorship to pre-dental students. Thus, we expect this goal to be fully accomplished in the near future.

Goal 5: To provide an opportunity to dental students to operate the clinics and assist qualified dentists in meeting the needs of underserved children while increasing their skills and knowledge.

This goal has been fully accomplished. We have MOUs in place with seven dental schools (Arizona School of Dentistry and Oral Health, Case Western, Western University and University of Detroit, Mercy, Roseman University, University of Maryland) to send their students to our clinics for service learning experiences with underserved communities, under direct supervision. We allow one student to come at a time to rotate through our clinics. We are currently developing MOUs with Meharry to send their dental students.

Goal 6: To develop and implement a sustainability plan that will include establishing processes for reimbursement.

As part of our Free Dental Clinic Project, we continue to write grants to obtain equipment and supplies as needed. Other grants have provided the funding for the Assistant Clinical Director and our Dental Fellow. We are still investigating the possibility of establishing a process to obtain reimbursement from Medi-Cal.

Objectives

Objective 1: During the four year grant period, at least 600 children who are uninsured or otherwise have no access to a dental home will enroll as a dental clinic patient, as measured by enrollment records that include documentation of date of birth and grade level of child (primary patient) and type of insurance.

We were off to a slow start as our clinic was not operational until May 2012. We were only able to hold four clinic sessions before the school closed for summer vacation, resulting in the closure of the clinic until September 2012. Therefore, during the first year of funding we enrolled only 20 children. In Year 2 we had 212 children enrolled, in Year 3 we had 329 children enrolled and in Year 4 we had 368 children enrolled. These numbers do not include the screening examinations that were performed. Numbers of screenings were: 75 children in Year 1; 325 children in Year 2; 1,156 in Year 3; and 1,112 children in Year 4. (Please note that in Year 1 and the first half of Year 2 we were using an opt-in screening that included x-rays. During the second half of Year 2, we switched to an opt-out screening form that only included a visual screening; this increased the numbers of children who could be screened and made the process more efficient.

Objective 2: During the four year grant period, the Dental Clinic will accommodate approximately 4,200 patient encounters (visits). (600 in year one and 1,200 in each subsequent year) as measured by electronic treatment records.

Although we were initially limited by the small size of our clinic and the delay of the move to a larger clinic site, during Year 3 we completed a total of 1352 patient encounters and during Year 4 we completed 1,325 patient encounters and thus, met our objective.

Objective 3: During the four year grant period, 100% of children enrolled will receive an annual diagnostic oral exam including x-rays as needed, as measured by electronic treatment records and oral health treatment plans.

Since the later part of Year 2, 100% of the children enrolled in the school are offered a visual screening. Of 1313 children attending Lemon Grove Academy in Year 3, 88% were screened and of 1236 children attending the school in Year 4, 90% were screened. Only children whose parents opted out were not screened; 100% of those whose parents did not opt out of screening were actually screened. All children who are enrolled as patients in the clinic are invited for an annual exam.

Objective 4: During the four year grant period, at least 95% of children enrolled and seen in the clinic will receive oral prophylaxis (teeth cleanings), as measured by electronic treatment records. ***Note: Preventive services and treatment will be available to 100% of children enrolled: However, a very small percentage may not follow-up with the treatment plan for a variety of reasons including leaving the school between completing the exam and receiving service.***

Prophylaxis is performed for all children after treatment has been completed. Of the children seen in the clinic so far this year, 77.5% have received oral prophylaxis; those who have not received prophylaxis are still receiving treatment and will be scheduled for prophylaxis in the near future upon completion of their care.

Objective 5: During the four year grant period, at least 95% of children enrolled and seen in the clinic will receive sealants as measured by electronic treatment records.

Sealants are usually placed after treatment is competed. Of the children enrolled for care and treated in this clinic so far this year, 46% have received sealants; the remainder are still receiving treatment and/or scheduled to receive sealants in the future.

Objective 6: During the four year grant period, at least 95% of children enrolled and seen in the clinic will receive fluoride treatments as measured by electronic treatment records.

Fluoride treatments are also given at the end of treatment. Of the children treated in Year 4, 76.6% received fluoride treatments; the remainder will get fluoride at the end of their treatment.

Objective 7: During the four year grant period, at least 95% of children whose treatment plan indicates need will receive extractions or restorative dental treatment, as measured by electronic treatment records.

Overall, 100% of the children whose treatment plan indicates need have received extractions and restorative dental care. In Year 4, there were 67 children who required a total of 172 restorations (most often, multiple restorations are provided over multiple visits), and there were 14 children requiring one or more extractions.

Objective 8: At least 75% of children enrolled and seen in the clinic will complete their treatment plans, as measured by electronic treatment records.

In Year 4, 50% of children who had a treatment plan have completed it; the remainder are in the process of doing so. The period of treatment often occurs over multiple visits and is elongated when parents cancel or change appointments multiple times.

Objective 9: At the end of each grant year, the majority of parents whose children are enrolled and seen in the clinic will report improved oral health practices (teeth brushing, flossing, reduced sugar), as measured by a pre-post survey.

We did an oral health baseline needs assessment prior to the opening of the clinic and repeated it one year later (see Appendix A). Comparisons from before the clinic opened (March 2012) to one year after (March 2013) showed a reduction of over 10% in parents who reported that their child did not have a dental home (from 35.2% to 25.1%). At baseline, 4% of parents reported that their child did not brush his or her teeth; this was reduced to 0% one year after our clinic was opened. Additionally, parents reported lower rates of rewarding with candy (31.3% at baseline vs. 24.7% at follow-up) and gave cariogenic snacks (crackers and juice) less frequently on follow-up.

Objective 10: At the end of each grant year, the majority of parents whose children are enrolled and seen in the clinic will indicate that they (or their child) have experienced one or more positive outcome(s), as measured by a pre-post survey such as:

- **Reduced tooth pain**
- **Improved self-confidence**
- **Reduced problems with chewing or eating**
- **Improved sleeping**
- **Improved school attendance**

Comparisons of responses on a needs assessments obtained before the clinic opened (March 2012) and one year after (March 2013; see Appendix A) showed reductions in the proportions of parents reporting that their child had tooth pain, problems chewing or eating, and broken teeth. Absences from school due to dental problems decreased from 12.5% to 9.2%.

Objective 11. During the four year grant period, at least 60 pre-dental students will help operate the Dental Clinic, as measured by student database that will track names of students, number of hours provided and services/tasks performed,

A total of 126 pre-dental students volunteered during Year 4. This was an increase over the 62 student volunteers reported for Year 3. As the number of dental chairs increased and hours of clinic operation increased, we were able to see more patients in the clinic and there was a greater need and opportunity for pre-dental students to serve as assistants in the clinic. Since the inception of the dental clinic at this school, pre-dental students have volunteered a total of 8,155 hours.

Objective 12: At the end of each grant year, the majority of pre-dental students who provided services at the clinic will indicate that they feel more knowledgeable and competent in the providing school-based oral health care and will be willing to work with underserved populations in the future, as measured by a pre-post survey.

During Year 4, we conducted a cross-sectional study to examine the association of volunteering in the free clinics with pre-dental students' attitudes and commitment to work with the underserved. Participants were 126 pre-dental students (not all had volunteered in the clinic yet) who were surveyed during one of four weekly Pre-Dental Society meetings. Information on demographic characteristics and time (hours) volunteered in the clinic were obtained along with measures of self-esteem, empathy, commitment to help others and intent to work with the underserved.

Average age was 22.3±2.7 years (range=18-35 years); 43.7% were male. Most were college graduates (31.0%), seniors (23.8%) or juniors (22.2%). Overall, 88 (69.8%) volunteered in the clinics; mean hours volunteered was 168.6 (median=100). Of the 38 (30.2%) who did not volunteer in the clinics, the majority (79.0%) had just joined the Pre-Dental Society and had not yet completed the training required to volunteer. Compared to those not volunteering, students who volunteered had significantly higher self-esteem (means=49.8 vs. 58.2, $p<0.001$), empathy (means=20.5 vs. 23.5, $p<0.001$), commitment to help others (means=6.6 vs. 7.1, $p=0.04$) and intent to work with the underserved (means= 16.8 vs. 18.3 $p=0.001$). Hours volunteered in the clinic was positively correlated with all attitudes, with significant associations for self-esteem ($r=.51$, $p<0.0001$), empathy ($r=.23$, $p=0.009$) and intent to work with the underserved ($r=.24$, $p=0.007$). In conclusion, this study showed that pre-dental students who volunteer in the free dental clinics had higher self-esteem, empathy, commitment to help others and intent to work with the underserved; the more time volunteered, the greater the effects. These results suggest that volunteering with the underserved can shape pre-dental students' attitudes. Longitudinal studies are needed to examine long-term effects of volunteering on changes over time in attitudes.

An abstract based on this study has been accepted for a poster presentation at the 2016 ADEA Annual Session and Exhibition, March 12-15 in Denver, Co.

Objective 13: During the four year grant period, project partners will develop and implement a mechanism for billing for Medicaid, CHIP or other 3rd party reimbursements, as indicated by claims billed and paid.

We are still investigating this possibility.

Other Outcome and Impact Indicators

We track information about our delivery of care (not including screening) for all of the clinics that comprise the UCSD Student-Run Free Dental Clinic Project. Statistics are generated from calendar year to calendar year, January through December (rather than from the September 30th to September 29th funding period associated with each year of this grant), and includes number of clinic sessions, pre-dental student volunteer hours and

total monetary value of services rendered. This information is summarized in the table below for May 2012 though September 2015.

	Lemon Grove Statistics***				
	2012*	2013	2014	2015**	Total
Clinic Sessions***	15	68	69	77	229
Pre-dental Student Volunteer hours	415	2,130	2,680	2,930	8,155
Total Monetary value***	$34,019.33	$111,351.00	$97,170.00	$86,682.55	$329,222.88

* Based on partial year –half of May, half of September, October, November, half of December
**partial year, January through September.

*** Not counting approximately 1200 screenings per year.

D. Resources and Capabilities

This section describes the organizational readiness through the four year project period and includes information on the ability to adapt the organization's resources and capabilities to fulfill the needs and requirements of the project.

- **Past work experience with the target population(s):**

  The investigators and staff for this project have a vast amount of experience in working with populations similar to the target population, addressing identified oral health needs, and developing and implementing appropriate systems and services.

The clinic was opened in a public school, Golden Avenue Elementary School (now merged with a middle school and renamed Lemon Grove Academy). The school is located in an underserved area where there is a lack of access to care. Mr. Ernest Anastos is the Superintendent of the Lemon Grove School District and Mr. Rick Oser is the Principal of Golden Avenue Elementary/Lemon Grove Academy. Both are extremely knowledgeable about the needs of this community and the children attending this school as well as the rules and workings of the School District. Additionally, Mr. Oser was responsible for changing the milieu of the school from being one of the most underperforming schools in San Diego County to being one of the best.

Subcontracted personnel with the UCSD Student-Run Free Clinic Project (SRFCP) provided the clinical knowledge and expertise needed to open and run a free dental clinic. As described previously, at the time that this project was funded, the UCSD Student-Run Free Clinic project was providing transdisciplinary care for the underserved (i.e., the working poor, unemployed and homeless) at three clinic sites in San Diego County. One of the sites is within Baker Elementary School, a public K-5th grade located in the underserved area of Southeast San Diego. Thus, personnel involved with the SRFCP were experienced in working with a school district to provide care within a school. Additionally, there was already a medical clinic at Golden Avenue Elementary and it was an environment that promoted wellness.

The main study personnel subcontracted under this grant complimented each other in terms of their knowledge, expertise and their ability to take a leadership role in the different aspects required by this clinic. For instance, Dr. Ellen Beck is a physician and the Founder and Director of the SRFCP. The SRFCP is the umbrella under which the medical, dental, and other free clinics operate. Dr. Beck provided a wealth of knowledge for starting the free clinic as well as expertise in many other areas such as interfacing with the medical personnel, cultural competency, and the health needs of the children attending the school and their families. Dr. Irvin Silverstein has been the Director of the Student-Run Free Dental Clinic Project and the UCSD Pre-Dental Society since 2002. A retired periodontist, Dr. Irvin Silverstein has a vast knowledge about practice management and starting up and running a free dental clinic. His expertise in constructing and equipping a clinic and negotiating with suppliers for the best rates as well as his experience in implementing systems for delivering clinical dental care and providing oversight was invaluable. Dr. Donna Kritz-Silverstein is an epidemiologist with over 30 years of experience in research, grant writing and evaluation as well as form and survey design. She is also an Advisor for the Pre-Dental Society who served as the Evaluator for this project. Thus, the main personnel were all able to take on distinct leadership roles; having worked together for over 10 years enabled an environment of mutual respect and collaboration that carried over into working with the leaders from the school district.

There was also an Advisory Board that met regularly to provide oversight and determine clinic policies. The Advisory Board consisted of the District Superintendant (Mr. Anastos) and the school Principal (Mr. Oser), the Director of the SRFCP (Dr. Beck), Director of the Free Dental Clinic Project (Dr. Silverstein), the Evaluator (Dr. Kritz-Silverstein), the Parent-Community Liaison (Ms. Preval), the Dental Associate, the Dental Fellow, the Assistant District Superintendent, and when possible, the CEO of the San Diego County Dental Society, and 1-3 pre-dental student clinic managers. The composition of Advisory Board was fairly stable with most members serving all four years of this project. The exceptions were the Dental Associate, Dental Fellow, and pre-dental students. Our original Dental Associate moved to another state. A second Dental Associate left for another job at a community health center. This position was taken over by the Assistant Clinical Director of the UCSD Student-Run Free Dental Clinic Project. Our first Dental Fellow (funded by a different HRSA grant) joined us during the second year of this project and left after a year. A new Dental Fellow joined us in the summer of 2014 and remained with us for the duration of the project. Pre-dental student clinic managers are generally with us for 1-2 years and leave to attend dental school.

The skills and knowledge of the Evaluator were more than adequate to design and implement the necessary data collection and evaluations. However, the time needed to perform the project evaluation activities was underestimated. Most funding went into either the clinical delivery of care or for the provision of equipment and supplies. There was no funding to hire paid staff to help with the evaluation aspects of this project and other staff members were busy with clinical care. Thus, the evaluation staff consisted of eager pre-dental students who assisted with evaluation and data collection activities under the guidance of the Evaluator.

- **Policies and procedures necessary to initiate the SBCOHS project**

The UCSD Student-Run Free Dental Clinic Project operates under the University of California San Diego. For providers to work in the clinic, they must be credentialed by the UCSD human resource department. This entails providing proof of a valid dental license, having no outstanding infractions on their dental license, going through a background check, having a valid CPR card, negative TB test and several other requirements. Likewise, pre-dental student volunteers also go through a credentialing process. We follow risk management, patient grievance and incident procedures set forth by UCSD. All individuals who work in the clinic take a classes in HIPPA and OSHA as well as California law; all clinics are OSHA compliant. Patient records are kept in compliance with HIPAA regulations; data is stored on password protected files on password protected computers, and only clinic personnel have access to the file.

- **Readiness to initiate the proposed project plan within six months of a grant award**

At the time of grant award, we were already experienced in running free dental clinics and having a school based oral health clinic. We began planning the clinic at Lemon Grove as soon we got word of funding. However, we did not have an operational facility until the eighth month of this study. Because the clinic was located within a school, we were required to use district architects and contractors to plan changes in the existing space needed to accommodate the clinic. This need to use district architects and contractors slowed our progress, as they are very busy and it took months for our project to be scheduled. This caused a delay in our ability to provide care and we did not open until the eighth month of this project. Once the clinic was built and equipped, it was necessary for the dentists, student clinic managers and other personnel to attend training sessions to learn how to use the new equipment.

We have been very fortunate to have a wonderful parent-Community Liaison at the project site to help provide information to parents and follow-up the children identified as having oral health care needs. Other clinic support staff comes from the volunteer efforts of a cadre of eager pre-dental society who manage and run the clinics as well as serve as chair-side assistants. The clinic was staffed with only experienced student assistants when we first opened in order to ensure the efficiency of the clinic.