

# **Henry M. Goldman School of Dental Medicine**

## **Global and Population Health**

### **Annual Report 2015-2016**

The mission of the Office of Global and Population Health (GPH) is to develop, promote, and sustain interdisciplinary domestic and international health initiatives with the aim of enhancing the educational experience of students and improving the health of our global community. The Office actively supports students, faculty, and staff in their efforts to improve the health of the world's populations, and facilitates interdisciplinary health research, teaching, and practice across all departments and programs in the University, with a special emphasis on global health.

**Teaching:** GPH faculty contributed to GSDM pre and postdoctoral courses on preventive and community dentistry, preclinical general dentistry, and community based rotations. Faculty served as course directors, lecturers, preclinical instructors, thesis readers, and mentored the fourth year students in their community outreach projects completed during their Externship.

**Community Based Education:** As part of the first year DMD curriculum's *GD 510* course, GPH faculty and staff managed the community-based experiences that serve as the foundation for the students' service learning activities. During these experiences, under the supervision of GPH faculty each first year student created grade-level appropriate lesson plans, conducted oral health education for classrooms, and provided preventive services (dental screening, sealants, and fluoride varnish treatments) to students enrolled in five public elementary schools in Boston. For the third year, GPH offered GSDM students greater experience in pediatric dentistry for children 0-5 years of age. Third-year DMD and first-year AS students were given opportunities to provide screenings and preventive services to children in some of GPH's existing preschool-based oral health programs. A GPH faculty member supervised GSDM student volunteers on fourteen occasions at either the Crispus Attucks Children's Center in Dorchester, the Nurtury Child Care Program on Tremont Street in Boston or on Horadan Way in Roxbury, or at Countdown to Kindergarten at the Boston Children's Museum. Forty-eight students provided dental screenings, fluoride varnish applications, and oral health education to the children enrolled at these sites between September and December. For the first year, as part of DMD's fourth year pediatric rotation, students provide preventive and restorative services to children in Boston's Orchard Gardens K-8 School under the guidance of GPH faculty.

**Advising/Mentoring:** GPH faculty served as advisors for GSDM students, faculty, alumni, and community members interested in community-based clinical research, public health, and community service; and as mentors to pre and postdoctoral students' community outreach and research projects. Additionally, GPH faculty supervised one Sargent College student in a semester internship program and three pre-dental students from several other colleges and programs in volunteer activities with GPH.

Service: GPH faculty provided service to the profession and the community. Dr. Michelle Henshaw served on the Massachusetts Association of Community Health Workers' Oral Health Advisory Board, as a member of the Boston Task Force on Improved Perinatal Clinical Care, as a member of the Healthy Birth Boston, as a member of the Massachusetts Coalition for Oral Health, on the Advisory Boards of both the Massachusetts Early Childhood Oral Health Consortium and the Better Oral Health for Massachusetts Coalition, and on a National Institutes of Health Grant Review Panel. Kathy Lituri served as Oral Health Consultant to ABCD Head Start and Early Head Start and as a member of the Health Advisory Board of the South Boston Head Start, Dorchester Early Head Start, and Roxbury Early Head Start. She also served as a dental representative of the Boston Eligible Metropolitan Area (EMA) Planning Council and on the Boston EMA Planning Committee. On a national level, Kathy Lituri continued to serve as Chair of the Oral Health Section of the American Public Health Association (APHA) and as a member of several Oral Health Section committees, including the Scientific Program Planning Committee and the Student Award Committee. Dr. Corinna Culler served as a member of the Massachusetts Early Childhood Oral Health Consortium, as Chair of the Surveillance Work Group for the Better Oral Health for Massachusetts Coalition, and on a national level, as Chair of the Council on Publications for the American Association of Public Health Dentistry. Dr. Mohammad Mourad served on the Lawrence Mayor's Oral Health Task Force and the Health Services Advisory Committee for Lawrence Community Day Care's Early Head Start Program, and Dr. Gladys Carrasco served on the CAPIC Head Start Health Advisory Committee and the Chelsea Family Network Advisory Council, both in Chelsea, Massachusetts.

### **School-Based Oral Health Programs**

The Office of Global and Population Health at the Boston University Henry M. Goldman School of Dental Medicine currently runs five city wide school-based oral health programs that operate in 62 schools and 21 preschools in Boston, Chelsea, Framingham, Natick, and Lawrence delivering preventive services to thousands of children, including oral health education, dental screenings, fluoride applications, and sealant placement. Through our school-based programs during the 2015-16 academic year 17,880 children were served: 16,374 children were provided oral health education, 5,889 received oral screenings, 5,799 received fluoride, and 4,516 dental sealants were placed for 1,486 children.

**Chelsea Comprehensive School-Based Dental Program:** For the 16<sup>th</sup> year in Chelsea, GSDM provided city wide comprehensive services including classroom education, dental screenings, dental sealant placement, fluoride varnish applications, and restorative dental care for children enrolled in Chelsea's five public elementary schools. Through partnerships with CAPIC Head Start and the Chelsea Family Network, services are also provided to many of Chelsea's preschoolers. This comprehensive oral health program is included in the Agency for Healthcare Research and Quality's Health Care Innovations Exchange, a national program designed to support health care professionals in sharing and adopting innovations that improve the delivery of care to underserved patients.

During the 2015-16 school year, this school-based program provided classroom oral health education to 2917 students in pre-kindergarten through grade four in Chelsea Public Schools. Dental screenings were provided to 1575 students, fluoride varnish treatments to 1558 students, and 904 dental sealants were placed for 305 first through fourth graders.

Since opening in April of 2003, GSDM's Chelsea School Dental Center (CSDC) has provided preventive and restorative services for thousands of children. Located in the Williams Middle School, the CSDC gives care to Chelsea public school students regardless of their grade level or ability to pay for services. Many of the patients, who range in age from preschoolers to high school seniors, have never been to the dentist and would have no other source of dental care if it were not for the CSDC. Five bilingual dentists devote time to treating patients in the clinic.

**Framingham School Dental Program:** GPH operates a town wide school-based dental program for grade school children within eight public elementary schools. During the 2015-16 school year, oral health education was provided to 2969 students in grades kindergarten through fourth grade. Additionally, 809 children received a dental screening and fluoride treatment. A total of 578 sealants were placed for 176 children.

**Lawrence School Dental Program:** Children in all nine elementary schools and four middle schools in the City of Lawrence are provided oral health education, dental screenings, fluoride applications, and sealants. In total, GPH faculty and staff presented oral health education to 5596 students, dental screenings and fluoride for 1591 students, and 1077 sealants were placed on 344 students.

**Natick School Dental Program:** GPH runs a town wide school-based dental program for grade school children within all five public elementary schools in Natick. During the 2015-16 school year, 544 children received oral health education, 99 received oral screenings and fluoride, and 120 sealants were placed on 34 children.

**Smart Smiles in Boston Public Schools:** During the 2015-16 school year, GPH provided education for 3726 children; dental screenings, fluoride application and dental cleanings for 1282 children; and 1131 sealants were provided to 372 children in 31 Boston Public Schools including: Beethoven, Boston Teachers Union, Clap, Conley, Dudley Charter, EDCO Youth Alternative, English High, Everett, Grew, Hale, Haley, Henderson Lower, Higginson-Lewis, Holmes, Hurley, Kilmer Lower, Kilmer Upper, Lyndon, Mason, McKay, McCormack Middle School, Mission Hill, Mozart, Orchard Gardens, Perkins, Roosevelt Lower, Roosevelt Upper, Sumner, Trotter, Winthrop, and Young Achievers. In addition to preventive services, restorations were provided at the Orchard Gardens School during the 2015-16 school year. Supervised by GPS faculty, DMD 4 students worked at this school as part of their pediatric rotation. Three hundred sixty restorations were completed for 141 children.

## **Preschool-Based Oral Health Programs**

GSDM's community outreach programs provide screenings and/or oral health education to over 2000 children in Boston area preschools, day care centers, Early Head Start, and Head Start programs and oral health education to preschool administrators, staff, teachers, and parents.

**Action for Boston Community Development (ABCD) Early Head Start (EHS):** GPH faculty conducted Early Head Start oral health examinations, fluoride varnish, and referrals for children enrolled in eight ABCD Early Head Start Centers located in Bradshaw, Dorchester, East Boston, Jamaica Plain, Parker Hill, Roxbury, South Boston, and the South End.

**Chelsea Family Network:** GPH faculty provided oral health education and dental screenings for 30 children between the ages of three and five years at Kangaroo's Pouch during the 2015-2016 school year.

**Community Action Programs Inter-City (CAPIC) Head Start:** Dental screenings and fluoride applications were provided twice during the 2015-2016 school year for 265 Head Start children ages three to five years enrolled in the CAPIC Head Start (Chelsea, Revere, Winthrop) Program.

**Crispus Attucks Children's Center:** GPH faculty and 12 GSDM students visited the Crispus Attucks Children's Center in Dorchester as part of the school-based dental outreach program. For four days, the team went into six classrooms of children ages three to six years old. During the visits, the children took part in circle time where the GSDM students engaged them in hands-on dental health lessons. The 190 children participating received dental screenings and oral hygiene supplies.

**Framingham South Middlesex Opportunity Council (SMOC) Head Start:** As a part of the Framingham School Dental Program, 190 preschool age children were provided oral health education, and 86 children received dental screenings and fluoride treatments.

**Greater Lawrence Community Action Council Child Care Center:** Oral health education was provided for 162 preschool children, and dental screenings and fluoride varnish was applied for 40 children enrolled at the Greater Lawrence Community Action Council Child Care Center.

**Government Center Child Care Corporation:** GPH faculty presented an oral health lesson to 28 preschool children enrolled in two classes at the Government Center Child Care Corporation in Boston.

**Lawrence Community Day Care Early Head Start:** Oral exams and fluoride varnish treatments were conducted for 67 infants and toddlers enrolled in Lawrence Community Day Care's Early Head Start Program.

**Nurtury (formerly known as Associated Early Care and Education):** GSDM pre-doctoral students joined GPH faculty for nine days of dental outreach at four sites run by Nurtury, a preschool-

based program serving infants, toddlers, and preschool-aged children. GSDM students engaged the children with the use of puppets, taught them a tooth brushing song, and provided screenings and fluoride varnish applications. This activity is linked with the third year pre-doctoral Pediatric Dentistry course for DMD3 and AS2 students and is designed to provide pre-doctoral students additional experience with pediatric patients in non-clinical settings and improve the oral health of preschool age children.

**Pine Village Preschool:** GPH faculty presented an oral health lesson to 30 preschool children enrolled in three classes at the Pine Village Preschool in Boston's South End.

**Project Hope:** Seventeen preschool children at Project Hope received oral health screenings, fluoride, and oral health lessons.

### **Community Outreach and Partnerships**

Global and Population Health continued to expand its community outreach activities and recruit dental students, faculty, and staff volunteers into its various service programs. In 2015-2016, 69% of GSDM's pre-doctoral students, 415/600, participated in school-sponsored service activities, including community outreach activities and roles as teaching assistants and admissions tour hosts. Of the 415 students who participated in one or more of GSDM's service activities, 305 (73%) of students participated as volunteers and 110 (27%) participated as part of their ongoing curriculum. Additionally, 15 postdoctoral students and 107 faculty and staff volunteered to serve in one or more community outreach activities.

Strategic partnerships with 145 organizations form the foundation for many of the research, teaching, and service programs managed by GPH. These partnerships strengthen our community outreach as we collaborate on programs and events that reach thousands of individuals and families in Boston and its surrounding communities. This year many new collaborative events occurred with both current and the following new partners: Al Huda Society, City of Boston Veterans Services, McGlynn Elementary School, Pine Village Preschool, Project Hope, Raising a Reader Massachusetts, Saint Anthony's Shrine, Susan S. Bailis Assisted Living, and Work Inc.

### **Community Based Oral Health Promotion Programs**

In addition to GSDM's work in Boston area elementary schools and preschools, the School was involved in 117, including 37 new, oral health promotion programs, initiatives, school field trips, and other community-based outreach activities. These programs and events have reached individuals of very diverse backgrounds and educational levels, including populations that have difficulties accessing oral health services, such as the homeless, those with special needs, the financially disadvantaged, the uninsured and underinsured, elders, refugees, and individuals with HIV. At the same time, GSDM's pre-dental, pre-doctoral, and post-doctoral students have been trained to provide oral health services for underserved, at-risk populations.

### **2016 Global Days of Service – GSDM Service Events and Collections**

Throughout April 2016, Boston University faculty, students, staff, alumni and their families and friends participated in Global Days of Service, an initiative offering service opportunities to Boston University friends worldwide. At GSDM, Global and Population Health and Alumni Relations coordinated many volunteer opportunities designed specifically for our GSDM family. The number of faculty, student, staff, and alumni volunteers during 2016 Global Days of Service almost doubled from the number of volunteers in 2015.

This year's Global Days of Service events include the following:

- Al Huda Society's Healthy Smile: Healthy You
- American Red Cross Blood Drive
- Charles River Cleanup
- Cradles to Crayons Giving Factory
- Greater Boston Food Bank (5 volunteer events)
- Haley House Bakery & Café (14 volunteer events)
- Notre Dame Education Center
- Raising a Reader Family Fun Day
- Relay for Life
- Rosie's Place at Franklin Field
- Rosie's Women to Women Program
- St. Catherine of Siena School 4<sup>th</sup> Grade Classroom Education
- Ricesticks and Tea Asian Food Pantry
- St. Francis House Service
- Susan S. Bailis Assisted Living
- Winthrop School's Health & Wellness Fair
- Work Inc.
- Yawkey Club of Boston Give Kids a Smile Dental Health Fair (two volunteer events)

### **GSDM's Community-Based Programs**

**Action for Boston Community Development (ABCD) Early Head Start (EHS) Teacher Workshops:**  
Held at the EHS Child Care Centers located in Charlestown, East Boston, and Dorchester, staff and the ABCD health manager participated in an informative PowerPoint presentation and engaging discussion regarding information and guidance on oral health issues specific to preschool children.

**American Student Dental Association (ASDA) Winter Clothing & Oral Health Kit Drive:**  
Members of GSDM's ASDA Community Outreach Committee held a winter clothing and oral health kit drive to benefit Boston's homeless and underserved. Donations included winter clothing, blankets, socks and oral health supplies. These were given to Rosie's Place and to the BU Medical School for distribution through its Outreach Van.

**Boston Medical Center Diabetes Group Oral Health Presentation:** A GSDM student and faculty member led a workshop on oral health recommendations for diabetes management for a group of people with diabetes who meet monthly for support.

**Boston Medical Center (BMC) Preventive Food Pantry Drive:** In February, three DMD students representing GSDM's chapter of the American Student Dental Association delivered 592 food items to the BMC Preventive Food Pantry, items which were donated by students, residents, faculty, and staff of GSDM. The Food Pantry distributes food to referred patients from all BMC clinics, feeding approximately 80 families per day.

**East Boston High School Presentation, *Promoting Dentistry as a Career*:** As a part of *Passport to College*, a Program for urban youth to improve access to higher education, a GSDM Advanced Standing student spoke to 100 students at East Boston High School about the importance of finishing high school and aiming for a career in the dental field.

**Elementary School Field Trips to GSDM:** Each year GSDM invites local elementary school second and third grade children to visit our school for a full day of oral health activities, including presentations on oral health and nutrition, a lesson on mouth guards, and interactive activities in the Simulation Learning Center in which they learn about sealants and dental impressions. These field trips provide both interactive health education for children as well as an opportunity for Boston University dental students to inspire young children to pursue a higher education and possibly a career in dentistry. This year the following schools participated: **Orchard Gardens School Field Trip:** 69 second grade children; **Blackstone School 17<sup>th</sup> Annual Field Trip:** 106 third grade children.

**Framingham South Middlesex Opportunity Council (SMOC) Head Start Parents Night:** As part of the Framingham School-based Oral Health Program, two oral health information sessions were presented to 70 SMOC staff and parents of enrolled children, providing an opportunity to educate both staff and parents about oral health and to increase parents' awareness of the many community services available to them in the Framingham area.

**Healthy Smile, Healthy You:** GSDM's Muslim Student Association, in collaboration with the Islamic Society of Boston Cultural Center in Boston and Al Huda Society in Chelsea organized two Healthy Smile, Healthy You events for their local communities. At the two events, 49 GSDM students, faculty, and volunteers provided a wide range of oral health promotion activities, including 109 screenings and referrals.

**McGlynn Elementary Kindergarten Oral Health Presentation:** Classroom dental education was provided to kindergarten children enrolled at McGlynn Elementary School in Medford. The children enjoyed interactive activities such as counting and brushing the teeth of a dental puppet, and goodie bags were distributed at completion of the program.

**Notre Dame Educational Center (NDEC) Oral Health Promotion:** GSDM faculty and students from the BU chapter of the American Student Dental Association served at the annual Notre

Dame Educational Center Dental Health Fair, where they conducted dental screenings and promoted oral health. The volunteers gave one-on-one oral health instructions, demonstrated flossing, and had visitors practice on a model. Since NDEC students are also eligible to enroll in the Boston University GSDM student dental health plan, the benefits of enrollment in the plan were explained.

**Samaritan's Purse and Compassion International Donations of Oral Hygiene Products:** GSDM donated 24 dozen toothbrushes and 12 dozen toothpastes to two organizations for distribution to families in Haiti and El Salvador.

**St. Catherine of Siena School 4<sup>th</sup> Grade Classroom Education:** GSDM students visited a fourth grade classroom at St. Catherine of Siena School in Norwood to talk with the children about oral health. A variety of interactive educational materials were used and goodie bags were handed out at the conclusion of the program.

**Susan S. Bailis Assisted Living Oral Health Presentation:** Two events were held at the Susan S Bailis Assisted Living Home in Boston. GSDM students gave a 20-minute PowerPoint presentation and question-answer session focusing on the importance of oral health and oral hygiene techniques. Volunteers and residents played BINGO, and toothbrushes and toothpaste were given out as prizes. One of the two events was held in the spring for BU Global Days of Service and was planned by the ASDA Diversity and Inclusion Committee in collaboration with Global and Population Health.

**Work Inc. Oral Health Workshops:** Twice in the spring GSDM volunteers visited Work, Inc., a nationally recognized community-based program for individuals with disabilities. The first workshop targeted the adults receiving support from Work Inc. while the second workshop was for the caregivers at the agency. Each session provided an opportunity for attendees to receive oral hygiene and dental health recommendations and interact with GSDM faculty and students.

**Yawkey Club of Roxbury Passport to a Healthy Smile Dental Health Fair:** The GSDM chapter of the American Student Dental Association (ASDA) participated in two events for children who attend the Yawkey Club of Roxbury, a Boys and Girls Club of Boston. During the first event, student volunteers prepared the educational materials and games for the Yawkey Club Health Fair and for the second event, the students engaged the 200 children at the fair with the interactive educational activities they had prepared and gave out the goodie bags they had assembled. The GSDM chapter of ASDA works with Global and Population Health to host this event each year as part of Give Kids a Smile, a nationwide initiative co-sponsored by the American Dental Association. At this annual event, children visit five dental themed tables to learn about proper brushing and flossing; healthy eating; tooth protection such as mouth guards, fluoride, and sealants; smoking and oral piercing; and careers in dental medicine. In addition, on two separate occasions in August of 2015, GSDM students served at the Yawkey Club of Roxbury during GSDM orientation.

### **GSDM's Collaboration with Other Community-Based Programs:**

**Baldwin Early Learning Pilot Academy Steps for Success:** Oral health promotion activities were carried out and dental screenings offered to the 50 three to six year old children attending this Baldwin School event. Fun, interactive oral health games and activities were enjoyed by children and their parents.

**Bay Cove Human Services Wellness Fair:** Bay Cove Human Services is a private, non-profit corporation that provides a wide range of services to individuals and their families with developmental disabilities, aging, mental illness, and drug and alcohol addiction. Bay Cove holds wellness fairs to improve health awareness through education and prevention. At this year's annual fair held at the Gill Wellness Center in Jamaica Plain, oral health promotion activities were provided by members of GSDM's student chapter of the American Association of Public Health Dentistry and Global and Population Health faculty. The volunteers offered oral health education, screenings, and referrals to the fairgoers.

**Boston Area Health Education Center (BAHEC) Youth 2 Health Careers Health Expo:** BAHEC aims to diversify the pool of health professionals in Boston by increasing middle and high school students' awareness of health professions and public health issues and concepts. The annual Expo event connects Boston adolescents who are interested in exploring health careers with health professionals representing a broad range of career fields. GSDM presented information on careers in dentistry and its benefits. Seventy-five high school students in attendance had the opportunity to ask questions about opportunities within the dental profession.

### **Boston Public School Events:**

- **Boston Public Schools Beethoven School Family Health Fair:** This community health event held at the Beethoven School in West Roxbury brought families together to learn about a variety of health topics and engage in fun-filled family activities. Global and Population Health faculty and staff distributed educational materials and talked with parents about GSDM's Smart Smiles School-based Oral Health Program. Oral health promotion activities included a demonstration of proper tooth brushing techniques. Goodie bags with oral hygiene supplies, pencils, and stickers were given out at the end of the program.
- **Open House Events** held at Holmes, Clap, Hurley, Winthrop, Henderson Upper, Perkins, and Everett Schools: GPH promoted the Smart Smiles School-based Oral Health Program and emphasized the importance of good oral health at each of these schools' back to school event. Hundreds of families were in attendance at these open houses, which featured a wide variety of community-based organizations presenting information of interest to families with grade school children.
- **JF Kennedy Family Wellness Event:** The JF Kennedy Wellness Night featured numerous organizations with health and wellness displays and educational discussions and handouts. GSDM staff set up a table with toothbrushes, toothpaste, and tooth models for

children to practice their brushing techniques. Tips for maintaining good oral health were presented to each attendee. Over 150 parents and children benefitted from the oral health materials and presentation.

- **John Winthrop School's Family Night:** John Winthrop School's Health & Wellness Committee utilized a raffle system to encourage the 40 families in attendance to visit each of the healthy living workshops. Families were allowed to participate in the raffle after they had received stamps, marks or stickers at every workshop, ensuring that all in attendance received the full benefit of each fun and informative station. The workshops included Healthy Snacks, Oral Health, Gardening Tips, Recycling and Exercise.

**Brazilian Independence Day Outdoor Festival:** GSDM volunteers participated in the annual Brazilian Independence Day Festival which brings area residents together to experience Brazilian culture, history, and heritage. The event included children's activities, musical performances, authentic Brazilian cuisine, and educational opportunities. Many health-related organizations were on site to offer various health screenings for attendees. Fourteen GSDM faculty and students provided 20 dental screenings and saw dozens more attendees, promoting oral health and handing out educational brochures, toothbrushes, and toothpaste. The GSDM volunteers worked alongside volunteers from the Massachusetts Alliance of Portuguese Speakers (MAPS), who offered free HIV and Hepatitis C screenings.

**Charles Yancey Book Fair and MY CHIP (Child ID Program) Event:** Six members of the GSDM community donated their time to the 29<sup>th</sup> Annual Charles C. Yancey Book Fair. This annual well-organized event held at the Reggie Lewis Track and Athletic Center promotes literacy and encourages the love of reading among Boston youth. More than 100 families were in attendance. Some of the GSDM faculty and students obtained bite registrations and DNA samples for the Child Identification Program, MY CHIP, while others were stationed at a dental resource table to promote oral health to school-aged children and their families.

#### **Chelsea Community Events:**

- **Open House for Berkowitz and Hooks Elementary Schools:** Global and Population Health faculty introduced the Chelsea School-based Oral Health Program to 200 parents of first graders in attendance at these two open house events. They presented the importance of preventive oral care by showing parents pictures of sealants and fluoride varnish and explaining how and why these are used to protect children's teeth. An emphasis was placed on the importance of follow up care with a dentist when dental treatment is needed.
- **Chelsea Back to School Celebration:** Two thousand students and parents attended the annual Chelsea Back to School Celebration held at Williams Middle School in Chelsea. Forty school and community groups welcomed students back to school with games, prizes, giveaways, and resource information. Four GSDM staff members were on hand to

talk with guests about oral health, GSDM's School-based Oral Health Program, and the Chelsea School Dental Center.

- **MGH Chelsea Summer Safety Fair:** The MGH Chelsea Health Center offered its 19<sup>th</sup> Annual Summer Safety Fair in June. GPH's Oral Health School-based Program faculty and staff provided oral health education, promoted the use of mouth guards when playing sports, and distributed toothbrushes and toothpaste to about 300 individuals. Volunteers passed out flyers and reminded the community that the Chelsea School Dental Center is available for all Chelsea Public School students. They also helped the Masons obtain bite registrations and DNA samples for their Child Identification Program.

**Christmas in the City (CITC):** GSDM faculty, students, and staff joined thousands of volunteers at the 23rd annual Christmas in the City. Held at the Boston Convention & Exhibition Center, this festive event benefited 3800 homeless children, parents, and caregivers from Boston area homeless shelters. The holiday party featured a banquet, live entertainment, a "Winter Wonderland" with games, rides, a petting zoo, and other kid-friendly activities. This marks the fourth year that GSDM participated in CITC. Faculty and students offered dental screenings and helped address oral issues pertaining to individual children. They also promoted oral health by providing age-appropriate, hands-on activities and distributed toothbrushes and information on proper oral hygiene.

**Countdown to Kindergarten Boston:** Twenty-seven members of the GSDM community volunteered their time at the 16<sup>th</sup> Annual Countdown to Kindergarten Celebration, held at the Boston Children's Museum. Countdown to Kindergarten Boston is a non-profit collaborative that offers resources and events throughout the year to celebrate and support the transition into kindergarten. This was GSDM's twelfth year participating in the event. Volunteers provided dental screenings and led oral health activities for parents and kids in attendance, including instructing the children on brushing techniques and teaching about oral health through arts and crafts. Parents also had the opportunity to talk to the volunteers and ask questions while their children were learning. The evening was a huge success for both Countdown to Kindergarten and GSDM. After three hours, GSDM volunteers had performed 90 dental screenings and interacted with hundreds of families.

**Cradles to Crayons Outreach:** Members of the GSDM community volunteered with the nonprofit Cradles to Crayons at the organization's headquarters in Brighton. The volunteers received an introduction to Cradles to Crayons before being assigned to project areas where they worked with a Cradles to Crayons staff member on projects that would benefit the organization's various programs. Cradles to Crayons provides children from birth through age 12 living in homeless or low-income situations with the essential items they need to thrive, connecting communities that have items with communities that need them.

**East Boston Kiwanis Bicycle Safety Rodeo:** GSDM faculty and staff served at the annual East Boston Bicycle Safety Rodeo at the Salesian Boys and Girls Club. Approximately 300 families attended this fun and educational event. Children received free bicycle safety checks while local

organizations distributed information about their services. GSDM provided resource materials about the importance of oral health and the use of mouth guards, and goodie bags were given to all who visited the table.

**Father's Family Fun Day:** Six GSDM volunteers served at the Boston Public Health Commission's two Father's Family Fun Days, which took place at Harambee Park in Dorchester in the fall of 2015 and the summer of 2016. The purpose of these events was to highlight the importance of fatherhood by attempting to identify, engage, and support fathers' relationships with their children. GSDM volunteers conducted dental screenings, provided oral health information, promoted positive oral health habits, and provided interactive age appropriate activities to all family fun day attendees.

**Greater Boston Food Bank (GBFB) Sorting Events:** On five days in April, GSDM staff and faculty met at the GBFB to sort, pack, and inspect food and groceries for people in need. The GBFB is the largest hunger relief organization in New England and among the largest food banks in the United States.

**Haley House Events:** On fourteen separate occasions during BU's Global Days of Service and twice during student orientation, GSDM students served at Haley House Soup Kitchen in Boston. Haley House is dedicated to helping those made vulnerable by the harshest effects of inequality move toward wholeness and economic independence.

**Healing Our Community Collaborative (HOCC):** HOCC is a non-profit organization for women infected with, affected by, or at risk for HIV/AIDS. Through ongoing HIV health education and prevention programming, HOCC strives to help eliminate health disparities among women without access to optimal health care.

- **Healing Our Community Collaborative Health Fair:** GSDM students celebrated National Women's Checkup Day by participating in the Healing Our Community Collaborative 6<sup>th</sup> Annual Health Fair. The HOCC Health Fair was an opportunity for volunteers to meet with women and encourage regular checkups in order to improve their overall health and help lower the risk of health conditions through early detection of heart disease, diabetes, Hepatitis-C, cancer, mental health illnesses, sexually transmitted infections, HIV infection, and other conditions. GSDM students provided oral health education to women by showing proper brushing techniques and providing information about oral care. Over 100 women participated in the event, which was held at the Old South Church on Boylston Street in Boston.
- **Healing Our Community Collaborative Women, Oral Health, and HIV Connection:** The GSDM community volunteered at the *Women, Oral Health, and HIV Connection* event sponsored by Healing Our Community Collaborative. The volunteer event, a collaborative effort between the GSDM Student Chapter of the American Association of Public Health Dentistry and the Boston Public Health Commission HIV Dental Program, attracted 80 at-

risk women from the community. The women in attendance participated in oral health discussions and many received screenings from the GSDM volunteers.

**Healthy Baby/Healthy Child (HB/HC) Summer Camp Picnic:** The Healthy Baby/Healthy Child Program is an innovative home-visiting program whose mission is to promote the health and wellbeing of women, children, and families in Boston, particularly those living in communities that are disproportionately impacted by infant mortality and other health disparities. Each year GPH participates in the Boston Public Health Commission's HB/HC summer camp picnic activities, and this year three GSDM students joined GPH faculty at Stony Brook Reservation in Hyde Park to promote oral health, offer fun interactive children's activities, provide dental screenings, and hand out free toothbrushes and toothpaste to families in attendance.

**HIV Dental Care/Ryan White Program:** Through support from the Ryan White Care Act, GSDM provides treatment to patients with HIV and AIDS throughout New England. A network for education referral has been established and includes Cambridge Cares about AIDS, Boston University Medical Center, and the AIDS Support Group of Cape Cod.

#### **Lawrence Community Events:**

- **Frost Middle School Healthy Living Expo:** The City of Lawrence held its *Healthy Living Expo* at the Frost Middle School. Over 25 organizations were at the school to promote a healthy lifestyle to the Lawrence community. GSDM's interactive activities included puppet shows, games, and educational materials teaching the importance of proper oral hygiene, a healthy diet, regularly scheduled dental visits, preventive measures for tooth decay, dental sealants, healthy eating, periodontal disease, and tobacco cessation.
- **Lawrence Community Resource Fair – Fiesta de Salud:** The Greater Lawrence Community Action Council held a community resource fair for the families of the Greater Lawrence area. The purpose of the fair was to educate residents about the various resources available in the Lawrence community to help put families on the road to success. GSDM's faculty and staff were on hand to talk with participants about oral health, healthy eating, and oral hygiene and to discuss the work of Global and Population Health's school-based Oral Health Program in Lawrence. About 500 families participated in this highly successful event.

**Leventhal-Sidman Jewish Community Center (JCC) Wellness Expo:** GSDM members participated in the JCC Wellness Expo in Newton, which provided wellness and fitness activities for the whole family, including everything from expert running advice to a make-your-own-smoothie station. The Alpha Omega-sponsored GSDM table was staffed by students, faculty, and alumni. Volunteers handed out toothbrushes and toothpaste and provided oral hygiene instructions to visitors. Oral health promotion posters were displayed, and coloring books and brochures about a child's first visit to the dentist were distributed.

**Massachusetts Stand Down:** Massachusetts Stand Down, co-sponsored by Volunteers of America and the Department of Veterans Affairs, is a community program designed to help

homeless and at-risk veterans. Held toward the end of August, the annual daylong event gives veterans in need a chance to receive food, shelter, clothing, health services, and more. This year the event was held at the International Brotherhood of Electrical Workers (IBEW) 103 in Dorchester. Thirty-four GSDM volunteers eagerly offered assistance to more than 500 veterans in attendance, providing 87 dental screenings, denture cleaning and labeling, dental hygiene supplies, and educational materials.

**MassCARE Health and Fitness Fair:** Members of the GSDM community volunteered at the MassCARE Health and Fitness Fair at the Cedardale Center in Groveland, Massachusetts. The Health and Fitness Fair serves HIV positive women, children, youth, and their families with a day of fun activities, as well as health and wellness screenings and information. Sixteen GSDM student and faculty volunteers spent the day giving 22 dental screenings and a presentation on oral health to 100 guests at the fair. Attendees stopped by the GSDM booth to pick up health and wellness information and pamphlets promoting oral health. Children enjoyed dental-related activities and games.

**Mattapan Health Revival:** Twenty-one members of the GSDM community volunteered at the Mattapan Health Revival held at the Mattapan Health Center in Hyde Park. The mission of this event is to improve the quality of life for residents of Mattapan and surrounding communities by providing health care services. Through a collaborative effort between the Office of Global & Population Health and the Boston University chapter of the National Student Dental Association, volunteers provided 55 dental screenings for adults and children. Faculty and students interacted with and provided oral health information to people from the community in the GSDM main tent and in the children's areas.

**Moon Festival:** GSDM's Asian Dental Student Organization (ADSO) and Global & Population Health faculty participated in the Mid-Autumn Moon Festival at Townfield Park in Dorchester. Over 100 members of Chinese and Vietnamese communities attended the free festival and enjoyed food tastings, lion dances, lantern decorating, raffles, and other activities. ADSO members were on site to promote oral health.

**Oral Cancer Foundation Walk for Awareness of Boston:** The Oral Cancer Foundation organized its 9<sup>th</sup> annual walk to raise awareness for oral cancer. Twenty-six GSDM volunteers signed up for the walk and countless others joined in the walk on the day it was held. The GSDM team was coordinated by the BU chapter of the American Student Dental Association and the faculty and staff participating in the event were members of the Oral Cancer Research Initiative, a focused multidisciplinary collaborative that works on diverse issues related to cancer.

**Pine Street Inn Learn and Serve:** During GSDM orientation, several students participated in Learn and Serve at the Pine Street Inn, a half-day opportunity that combined hands-on service with an educational tour of the Inn to provide volunteers with a deeper understanding of the issues of homelessness, poverty, and Boston's lack of affordable housing. Boston University volunteers worked in the kitchen to assist in preparing some of the more than 2000 meals prepared at the Pine Street Inn each day.

**Project Hope:** Project Hope is a multi-service agency in Boston providing low-income women with children access to education, jobs, housing, and emergency services.

- **Project Hope School Readiness Resource Fair:** This resource fair for families with children 0-5 years is part of the year-round Countdown to Kindergarten/Boston Children's Museum events that take place in various Boston neighborhoods. GSDM promotes oral health as it relates to young children and parents/caregivers with age appropriate and interactive activities.
- **Project Hope Childcare Staff Training:** GSDM faculty led two interactive workshops, one with Project Hope staff and one with parents, on oral health issues specific to preschool children.
- **Project Hope Shelter Oral Health Promotion:** A GPH faculty member discussed oral health recommendations with women living in the Project Hope Shelter and gave out educational materials and oral hygiene supplies.

**Puerto Rican Festival:** This three day outdoor event held at Boston's City Hall Plaza is dedicated to Puerto Rican families. Over 100 adults and families in attendance enjoyed a day of entertainment and received up to date information on various health topics and community resources. GSDM's chapter of the Massachusetts Student Hispanic Dental Association alongside dental students from Tufts and Harvard University as well as members of the Massachusetts Hispanic Dental Association promoted oral health and gave out free toothbrushes and toothpaste.

**Raising a Reader Family Fun Day:** GSDM participated in the Boston Public Library's Raising a Reader Family Fun Day to promote oral health through dental arts and crafts. Raising a Reader is a non-profit with an early literacy dual intervention program. The organization offered a series of Family Fun Days in several of the Boston Public Library branches including this dinosaur-themed event at the Upham's Corner Branch.

**Research Science Institute:** Since 1994 GSDM has been a participant in the Research Science Institute, a six-week summer program for high school students. Sponsored by the Center for Excellence in Education, in collaboration with the Massachusetts Institute of Technology, the students experience college-level classes and complete hands-on research guided by selected mentors at corporations, universities, and other organizations.

**Relay for Life, Boston University:** The Boston University Relay for Life took place at the Track and Tennis Center on the Charles River Campus on a Saturday in April from 6 p.m. through 6 a.m. Sunday. This is GSDM's eighth year participating in the 12-hour overnight event, where GSDM students, faculty, staff, and friends walk the track to honor cancer survivors, remember people who died of cancer, and raise money for the American Cancer Society.

**Ricesticks and Tea Asian Food Pantry Program:** Ten volunteers from GSDM's Asian Dental Student Organization lent their time to Ricesticks and Tea Asian Food Pantry to help the organization sort and bag food for area residents in need. Ricesticks and Tea Food Pantry is a Boston-based food pantry program that serves more than 120 pre-screened low income Asian immigrant and refugee families each month.

**Rosie's Place:** Located in the South End only a few blocks from GSDM, Rosie's Place describes itself as a sanctuary for women in need of a little extra care and support. It was founded in 1974 with a mission to "provide a safe and nurturing environment that helps poor and homeless women maintain their dignity, seek opportunity, and find security in their lives." Rosie's Place accepts no government funds and relies instead on committed volunteers and private supporters to accomplish its effective and innovative work. GPH collaborates with Rosie's Place in the following events:

- **Franklin Field Health Fair:** GSDM students and faculty participated in the Franklin Field Health Fair, a collaborative event between Rosie's Place and the Boston Housing Authority. The event took place at the Franklin Field Housing Development in Dorchester. Onsite, students provided participants with dental screenings, educated the participants about proper oral hygiene, and handed out oral health information geared to adults, children, the elderly, and disabled.
- **Franklin Field Oral Health Presentations:** An oral health presentation on smoking and oral health was given to residents of the Franklin Field housing development in Dorchester, where Rosie's Place has an office set up to serve the Franklin Field family.
- **Rosie's Place Wellness Fair:** GSDM has a long-standing program that enables women at Rosie's Place to receive oral health information and complementary hygiene supplies. At this year's annual Rosie's Place Wellness Fair, GPH faculty and student volunteers distributed toothbrushes and toothpaste and talked with those attending the fair about the importance of dental health, healthy eating, consequences of tobacco, and other health topics of interest.
- **Women to Women Program:** A GSDM initiative, faculty and students join together each month at Rosie's Place to volunteer their time for women in need. Their efforts are the fruit of a collaboration between the GSDM chapter of the American Association of Women Dentists, the Office of Global and Population Health, and the Wellness Clinic at Rosie's Place. Volunteers spend the second Friday of every month at Rosie's Place talking with women and answering oral health related questions, as well as offering oral health advice, oral screenings, referrals, and personal oral health products. Over the past twelve months, the students screened 112 women. In addition to serving at-risk women in the South End, the *Women to Women* program contributes to the holistic education of the GSDM student volunteers. It gives them the opportunity to better understand the plight of women in their community and it enables the students to work alongside other healthcare professionals in an interdisciplinary environment.

**Special Olympics Special Smiles® Program:** Students, faculty, and staff of GSDM participated in the Healthy Athletes® Special Smiles® initiative at the Special Olympics Massachusetts Summer Games at Harvard University's Murr Center. Over 1,200 athletes from the Greater Boston area converged on Harvard University's Athletic Complex to participate in athletic events such as bocce, cycling, fishing, golf, sailing, and softball. Dentists and dental students were on hand at the Special Smiles® clinic to offer oral screenings, health education and prevention services, and referrals to athletes who need follow-up care. They also provided individually-fitted mouth guards to participating athletes. The Special Smiles® clinic was staffed by 30 GSDM volunteers who were joined by volunteers from Forsyth School of Dental Hygiene, Harvard University School of Dental Medicine, Massachusetts College of Pharmacy and Health Sciences, Mount Ida College, and Tufts University School of Dental Medicine.

**St. Francis House Cook-Up Care:** GSDM students volunteered their services to prepare and serve food for those in need at St. Francis House, a homeless shelter in Boston. St. Francis House is the largest day shelter in New England and serves more than 800 poor and homeless men and women each day.

**Suffolk University Health and Wellness Fair:** Oral health promotion activities, including screenings, referrals, and education, were provided by GSDM faculty and students at the Suffolk University Health and Wellness Fair. The annual fair is an opportunity for GSDM to provide valuable oral health related information to Suffolk University students, faculty, and staff and allows Suffolk University students to increase their awareness of healthy lifestyle choices, behaviors, and resources within the Boston area.

**Tet in Boston Festival:** GSDM students participated in the annual Tet in Boston Festival, a Vietnamese New Year festival organized by the Vietnamese-American Community of Massachusetts and New England Intercollegiate Vietnamese Student Association. Held at Lombardo's in Randolph, the event drew thousands of people of all ages who enjoyed family-friendly activities, delicious food, and a concert. For more than a decade, GSDM's Asian Dental Student Organization, in partnership with Tufts School of Dental Medicine's Asian Dental Organization, has participated in Tet in Boston. At the dental table, volunteers promoted oral health with kid-friendly activities and handed out oral health education materials.

**Toys for Tots:** GSDM's chapter of the American Student Dental Association (ASDA) made the holidays more joyful for Boston's children in need this past December by collecting and distributing toys for the Toys for Tots Foundation. Organized by the ASDA Community Outreach Committee with help from the ASDA Diversity and Inclusion Committee, students collected new, unwrapped toys for children newborn to age 10.

**Veterans and Military Families Resource Fair:** Held at St. Anthony's Shrine by their new Veterans' Outreach Ministry, this kick-off event was for veterans to gather and learn about services available to them. GSDM students answered oral health questions for veterans and networked with other providers of services.

**Wang YMCA Holiday Party:** GSDM's Asian Dental Student Organization, in collaboration with the Office of Global and Population Health, sustained a holiday tradition by participating in the Wang YMCA Holiday Party in Chinatown prior to the holidays. Students and faculty promoted oral health and served as positive role models for the children who attended this annual holiday celebration. The children enjoyed a bounce house, games, face painting, and other activities. Stations run by GSDM students featured interactive oral health activities along with toothbrush and toothpaste giveaways. For the past eight years, GSDM has participated in this festive event which draws over 400 families from the community.

**Waymark Seventh-Day Adventist Church Community Health and Wellness Fair:** At the Waymark Seventh-day Adventist Church's Health and Wellness Fair, GSDM faculty and students from the Asian Dental Student Organization offered a variety of oral health promotion activities, including dental screenings, to fair attendees. The many families who turned out for the event received a variety of health and wellness information and free wellness products, including toothbrushes and toothpaste.

**Yankee Dental Congress 41/HIV Dental Work Group:** Students from GSDM volunteered at the HIV Dental Work Group booth at the 2016 Yankee Dental Congress (YDC). They joined students from Boston-area dental and dental hygiene schools as well as staff from GSDM and the Boston Public Health Commission to provide information to visitors about HIV and oral health. This marked the HIV Work Group's 18<sup>th</sup> year of providing an educational exhibit at YDC on HIV/AIDS oral health issues and infection control. Volunteers handed out information packets, talked to visitors, and assisted in collecting consumables to donate to programs for people living with HIV/AIDS in Massachusetts. Many of the GSDM volunteers who helped organize the effort are from the student chapter of the American Association of Public Health Dentistry.

### **International Programs**

**International Elective Externship Program:** GSDM students participated in sixteen international service mission trips in Haiti, Jamaica, Guatemala, Honduras, Mexico, Nicaragua, the Dominican Republic and Panama. The services provided by the fourth year students also provided them an opportunity to make a positive impact on the oral health of our global community while enriching and diversifying their dental education. Because of the efforts of the 43 students who participated in these programs, thousands of individuals across the world have improved oral and overall health.

**International Elective Exchange Program:** GSDM students participated in two exchange programs. Four GSDM students and one faculty member visited three universities in China and another group of four GSDM students and one faculty member visited one university in Japan and one in Thailand. The International Elective Exchange Programs offers our students international cultural interests in addition to enhanced clinical training.

- **China**, GSDM students were provided the opportunity to gain additional experience in the evaluation and treatment of patients with head and neck cancer at the Shanghai Jiaotong University School of Stomatology, the Fourth Military Medical University School of Stomatology in Xi'an, and Peking University School of Stomatology in Beijing. All three of these universities have great strength in clinical services for oral cancer patients. They have state-of-the-art inpatient operating facilities, where more than 10,000 major operations on oral cancers per year and more than 40,000 routine oral surgery operations per year are performed. GSDM has welcomed student and faculty visitors from each of the three schools over the course of this year.
- **Japan and Thailand**, GSDM students visited the Tokyo Medical and Dental University (TMDU) in Tokyo, Japan and the Faculty of Dentistry, Chulalongkorn University (FDCU) in Bangkok, Thailand. TMDU has Graduate programs in Medical and Dental Sciences, Health Sciences, Biomedical Sciences, and Biomedical Sciences and has the longest history of dental education and clinical dental services in Japan. TMDU is affiliated with the TMDU Hospital of Dentistry, which is the largest dental care institution in Japan serving over 1,800 outpatients per day, and over 19,000 hospitalized patients per year. FDCU offers postgraduate training for Esthetic Restorative and Implant Dentistry (International), Oral Biology, Oral Pathology, Orthodontics, Prosthodontics, Operative Dentistry, Radiology, Oral and Maxillofacial Surgery, Oral Medicine, Pediatric Dentistry, Community Dentistry, Periodontology, Occlusion, and Dental Biomaterials Science.

**Global APEX:** One GSDM student participated in the Global APEX rotation, which provided the opportunity to integrate and apply classroom learning in Esteli, Nicaragua. While learning from individuals with expertise in health promotion and disease prevention, he helped build capacity within the Esteli community by addressing oral health problems. The student was actively involved in oral health promotion activities, and while working under Dr. Michelle Henshaw's guidance, he developed practical skills in program planning and implementation.

**Grants/Research Activities**

NIDCR	Co-PI's: Raul Garcia, Michelle Henshaw	6/01/15-5/31/17
Northeast Center for Research to Reduce Oral Health Disparities		\$1,298,989
PI of Center Component Project: Michelle Henshaw, <i>Oral Health Advocates in Public Housing</i>		
HRSA	PI: Michelle Henshaw	7/1/13-6/30/18
Community Based Dental Partnership Program		\$1,400,000
<i>Salud Oral: Partnership for a Healthier Hampden County</i>		
NIDCR	Co-PI's: Borrelli; Henshaw	9/1/15-8/31/20
Integrating Interactive Parent Text Messaging and Oral Health Guidelines into Pediatric Community Health Centers to Reduce ECC among Urban Children		\$1,949,315