

## Creating a Sustainable Oral Healthcare Model: An Update on the NYUCD-Henry Schein Cares Global Student Outreach to Grenada

"The dentists are coming! The dentists are coming!" Such was the refrain uttered repeatedly by schoolchildren during NYUCD's September 2012 outreach to the tri-island nation of Grenada, Carriacou, and Petite Martinique.

Since January 2010, NYUCD has been involved in a Grenadian national school-based oral health program designed to develop a sustainable preventive model for this Caribbean nation, whose entire population totals approximately 108,000 people. The Grenada initiative has been the most comprehensive oral health assessment and prevention program ever undertaken by NYUCD.

Caroline Gordy, Class of 2013, made her third trip to Grenada in September. "As soon as our van pulled up to a school, kids would run toward us and hug us. They even remembered our names, which really makes you realize what an impact we are having on their lives." On each of her three visits, Dr. Gordy has been involved in the implementation portion of the preventive program, which has been carried out on six different occasions since September 2011.

"What's unique about these visits is that they focus solely on prevention, rather than on fixing a tooth or alleviating pain," said Dr. Mark Wolff, professor and chair of the Department of Cariology and Comprehensive Care and associate dean for predoctoral clinical education, who serves as co-director of the Grenada outreach.

"Our first trip in January 2010 was an initial survey phase that involved oral health assessment of over 1,000 children using the World Health Organization (WHO) Basic Oral Health Survey. We also ran a weeklong clinic to provide general and emergency care. Since then we have conducted an outreach clinic once a year, while providing school-



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based education three times a year. The goal with Grenada has always been to create a sustainable oral healthcare system.”

In May 2013, Dr. Wolff conducted a follow-up survey using the same World Health Organization (WHO) Basic Oral Health Survey to compare changes in the prevalence of decay in children. The initial survey’s baseline data revealed an alarmingly high prevalence of caries at 83.4 percent. At that time approximately 25 percent of the children interviewed said that they did not own a toothbrush and an even greater number had never visited a dentist.

“As we did in fall 2011, last September’s trip involved an initial distribution phase, in which we spent three days distributing toothbrushes, toothpaste, toothbrush head covers, and fluoride varnish to schools serving a total of approximately 26,000 children,” said Rachel Hill, NYUCD’s director of global outreach and international initiatives. The dental supplies were part of a generous donation from Colgate, one of the major sponsors of the outreach project, along with Henry Schein Cares, GC America, and Grenada’s Ministry of Health.

After wrapping up the distribution phase, the NYUCD team, along with a local dental team, went to the schools for two weeks. In the primary schools (kindergarten through 8th grade), the team visited classrooms where the teachers have been keeping logs to track daily brushing, as well as quarterly varnish and sealant applications.



Students in first, second, and third grades had sealants applied to newly erupted first-permanent molars and to those teeth that had not retained sealants applied on previous visits. Lastly, all the students received fluoride varnish, which was applied by teachers who had been trained by the outreach team. Additional fluoride varnish was given to the school principals to be reapplied by teachers in three months.

“We are now transitioning from an NYUCD-dependent environment to an independent environment,” said Dr. Wolff. “All of the teachers are now active participants. They run the toothbrushing program in the classroom every day and are trained to paint the fluoride varnish on their students’ teeth, both activities that are critical components of the project.”

The team also visited the pre-primary (pre-kindergarten) schools, where teachers are equally integral to the program’s sustainability. “With these children our hope is to have a major impact since they are learning about the importance of brushing at an early age,” said Dr. Stuart Hirsch, vice dean for international initiatives and development and co-director of the Grenada outreach. “The secondary students, whom you can view as equivalent to our high school students, are a unique group since they are at an age where they do not want to be told what to do and are often embarrassed if they have visible problems with their teeth. Still, we have been persistent in working with the teachers to help

them oversee brushing and also carry out fluoride varnish applications.”

This time around, the team applied fluoride varnish to approximately 13,864 children (3,163 pre-primary school and 10,701 primary schoolchildren) and placed 13,847 sealants on 4,509 primary schoolchildren. Additionally, the team distributed supplies to 7,698 secondary school students. They returned in late February for the final phase of implementation.

One of the challenges facing the program is the high level of refined carbohydrates in the typical Grenadian diet. “This is problematic,” said Dr. Hirsch, “since dietary changes require behavioral modifications that we can’t control as much as we might like. We are meeting with PTA groups and discussing the importance of proper nutrition, and may put recommendations regarding this issue in our final report to the government of Grenada.”

As the three-year outreach nears its conclusion, Ms. Hill and Mr. Chris Tung, the team’s research administrator, are conducting a financial analysis of the project. The goal is to help guide the government in their future oral healthcare planning. “We hope to demonstrate that prevention will not only improve health and quality-of-life issues, but will also prove economically beneficial in the long run,” said Dr. Hirsch. “My overall hope is that this survey will have a major impact and can be used as a model for other countries that have a dearth of dental

**“We are now transitioning from an NYUCD-dependent environment to an independent environment.”**

Dr. Mark Wolff



care and a large amount of oral disease.”

Like the Grenadian teachers, the local dentists, dental auxiliaries, hygienists, nurses, and other healthcare professionals who have been actively involved with the NYUCD team have now expanded their oral healthcare functions and are ready to take the reins once NYUCD transitions to an advisory role.

Members of the government of Grenada, particularly those in the Ministries of Health and Education, have been integral in making the outreach run smoothly. “We have been very fortunate to work with people who have been extremely cooperative and have the desire to improve the oral health of their country,” said Dr. Hirsch.

The outreach has transformed not only the way thousands of Grenadians view oral health care, but also the perspectives of the NYU dental students who have been to Grenada. “We find that initially all dental students are excited about doing restorative and surgical work,” said Dr. Wolff. “But on this outreach they really learn that prevention is every bit as important as restoring a tooth. In Grenada we have transformed outreach into a mission that hopefully has a lasting impact, a rather novel concept for a healthcare institution.”

Dental student Caroline Gordy said, “Patients need to know how to take care of themselves, otherwise the care we provide is not going to last. These trips to Grenada have literally changed my perspective, and I think I will be a better dentist for it.”

—Stephanie Susnjara

**September 2012 Grenada outreach team participants:**

**Faculty/Staff/Administrators**

- Dr. Stuart Hirsch - Program Director
- Dr. Mark Wolff - Program Director
- Ms. Rachel Hill - Director of Global Outreach and International Initiatives
- Ms. Alison Kurtz - Assistant Director of Global Outreach
- Ms. Danielle Becker - Program Administrator, Global Outreach
- Mr. Chris Tung - Research Administrator, Global Outreach
- Ms. Gracelyn Harris - Program Coordinator

**Pediatric Dentistry Team**

- Dr. Lily Lim - Pediatric dentistry faculty
- Ms. Keila Figueroa - Pediatric dentistry administrator
- Dr. Michelle Kim - PG1/Grenada veteran
- Dr. Dena Sapanaro - PG1/Grenada veteran
- Dr. Sheena Singh - PG1/Grenada veteran
- Dr. Michelle Goldstein - PG2

**Dental Hygiene Team**

- Ms. Cyndy Howard - Dental hygiene program faculty
- Ms. Lori Kirby - Dental hygiene program faculty
- Mr. Omar Batista - BS in dental hygiene program degree candidate

**Class of 2013**

- |                     |                    |
|---------------------|--------------------|
| Dr. Will Cheng      | Dr. Ronen Kalai    |
| Dr. Matthew Epstein | Dr. Shane Markey   |
| Dr. Caroline Gordy  | Dr. Ellen Nguyen   |
| Dr. Hans Hsu        | Dr. Mrunal Parmar  |
| Dr. Paul Hung       | Dr. Michael Sommer |
| Dr. David Juhn      | Dr. Michael Tuan   |

**DDS Students**

- |                           |                           |
|---------------------------|---------------------------|
| Ms. Kostantina Abate - D3 | Ms. Candace Lee - D3      |
| Ms. Rebekah Browder - D3  | Mr. Joseph Lee - D3       |
| Ms. Samira Ehteshami - D3 | Ms. Yoo Lee - D3          |
| Ms. Heather Kunen - D3    | Mr. Vikaskumar Patel - D3 |
| Ms. Rona Kushnir - D3     |                           |



## REBEKAH BROWDER, '14, DDS PROGRAM: "I'M AN NYU LIFER"

Originally from Stratford, Connecticut, Rebekah Browder graduated from NYU's College of Arts and Science in 2003 with a BA in French and Italian. Seven years later, in 2010, she enrolled as a dental student at NYUCD. Now entering her senior year, Rebekah plans to return to NYU after receiving her DDS degree to pursue a master's degree in global public health.

How did this language major make the transition to dentistry? According to Rebekah, it happened quite randomly. "After college, I worked as an account executive in advertising," she said. "I really enjoyed it for a while, but then I started thinking about what I wanted to be doing for the rest of my life, and I just couldn't see being in advertising for the long haul."

Then one day Rebekah made an appointment with a New York City dentist. "While he was providing my dental care, I had an epiphany and was able to picture myself in his shoes," she said. "He was about 31—the same age I am now."

A few days later, Rebekah quit her advertising job. At first, her fiancé (now husband) was a bit skeptical. "I basically turned everything upside down," she said.

"I went back to school at Pace University to take prerequisite courses to prepare for admission to dental school. I also took a part-time job in a dental office. All told, it took me about two-and-a-half years to prepare to apply."

Rebekah believes that her undergraduate experience at NYU helped her to navigate and take advantage of the many service-oriented opportunities available at NYUCD. In fact, she has taken on an extraordinary number of leadership positions, including community service representative for the Student Council; treasurer for the Aesthetics Club; outreach coordinator for the American Student Dental Association; peer mentor; Community Service Club executive board member; volunteer teacher for Citizen Schools, a local educational outreach program; and local student outreach coordinator for the Office of International Initiatives and Development.



Rebekah Browder, '14

*“I really think being a community service person is kind of a selfish act. By helping someone else I gain a greater sense of purpose. It gives me more motivation to get up in the morning.”*

Dr. Madiha Bhatti, director of student affairs, has worked closely with Rebekah on local outreach programs and played a part in nominating her for the President's Service Award, which Rebekah won in 2012.

"Rebekah really identifies with the need to give back. She recognizes that a good dentist is not just about academic achievements, but also must possess empathy and strong interpersonal skills," said Dr. Bhatti.

As community service representative for the Student Council, Rebekah coordinated a large number of service-oriented events, including the Give Back a Smile Foundation, which provides dental care for victims of domestic abuse; plus student campaigns to fund the purchase of food and essential goods, including clothing, to donate to local charities and to aid the homeless.

"I really think being a community service person is kind of a selfish act," said Rebekah. "By helping someone else I gain a greater sense of purpose. It gives me more motivation to get up in the morning."

Dr. Anthony Palatta, former assistant dean for student affairs and admissions, worked with Rebekah

on the DDS Peer Review Board.

"When I think of Rebekah, the word that comes immediately to mind is equity," said Dr. Palatta. "On the Peer Review Board, she was the voice of moderation, constantly striving to find a balance rather than looking at everything as black and white."

In terms of her future, Rebekah said, "I want it all. My dream would be eventually to have a practice in the city that allows me flexibility to raise a family. I would also love to join the staff at NYUCD someday, either in a teaching or administrative capacity. I'm an NYU lifer," she laughed.

Although Rebekah does not plan on specializing, she is interested in aesthetic dentistry since it allows her to tap into her creative side. "I love full-mouth reconstruction," said Rebekah. "The idea that someone stops smiling or laughing because they are embarrassed by their teeth is heartbreaking."

At NYUCD, Rebekah had the opportunity to treat an older female patient who needed dentures. "This woman, who came dressed in an old t-shirt and shorts, had huge fake teeth," said Rebekah. "She had been

a model in her younger days and told me what she had loved about her smile back then, so I tried to create dentures that captured that. After this patient got her new dentures, she came to see me dressed in a smart blazer with her hair and makeup all done up. She had dressed the way she felt inside and that was really great to see."

In addition to everything else she has going on at NYUCD, Rebekah recently returned from a global student outreach to Grenada. "Everyone kept saying that this trip was going to be transformative, and it was more than I could have dreamed in every respect."

Dr. Mark Wolff, professor and chair of the Department of Cariology and Comprehensive Care and associate dean for predoctoral clinical education, who co-led the prevention team in Grenada, said, "Rebekah is very modest. She represents the best of what we would like to see in patient care. You know, we can teach someone how to be a good dentist, but it's not as easy to teach someone to be an outstanding human being."

—Stephanie Susnjara

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## JENNIFER HYNES, '13, BS IN DENTAL HYGIENE: MARATHON WOMAN

Ever since she graduated from Curtis High School in Tacoma, Washington, in 1994, Jennifer (Jen) Hynes, BS program in dental hygiene, Class of 2013, has dreamed of pursuing a career as a dental hygienist. However, she decided to put her plans on hold after she married and became pregnant with her first child.

A decade later, Jen decided to go for her dream. Along with her two children, Lucas, 13, and Lexi, 11, Jen left her Seattle-based home and settled in Cobble Hill, Brooklyn, in order to attend NYUCD's full-time bachelor of science degree program in dental hygiene. The program offered everything she wanted: an interdisciplinary integrated curriculum that would allow her to obtain a BS degree while also receiving dental hygiene training at a premier dental school located in a bustling metropolis.

"My husband and I divorced a few years ago," said Jen, "and I viewed the situation as an opportunity to shuffle the cards and get dealt a new hand. That meant doing all the things I ever wanted to do, which included going back to school and living in New York City."

In addition to attending the dental hygiene program full time and raising her two children, Jen works from eight to 20 hours a week—usually on Fridays and on weekends—as a dental assistant at Central Park Dentistry in Manhattan. And as if that isn't enough, she also runs long-distance marathons.

"Last fall, during my fourth semester, I ran the New York City Marathon," she said. "That was a bit crazy with my course load, but running helps keep me sane."

Stefania Willis, clinical instructor in dental hygiene, first met Jennifer in preclinical lab during Jen's first semester. In addition to instructing her in several didactic courses, Professor Willis also taught Jen in clinic and tutored her for Board review.

"What is striking about Jen is her effortless confidence and sincere interest in working with people. She has a very active home life and manages to balance that with her studies and commitment to running. She is



Jennifer Hynes, '13

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introspective, sensitive, and practical—all critical traits in clinical work and important qualities in a healthcare provider.”

One of Jen’s favorite classes was oral anatomy, a course taught by Professor Willis. “At first it scared me,” said Jen. “The course deals with putting everything we’ve learned in courses such as chemistry and human anatomy together and relating it to the oral cavity. That’s huge—it’s what we’re working in and with for the rest of our lives. It was intimidating and challenging, but Professor Willis taught it so well.”

In addition to her many other activities, Jen serves as Student Council secretary for the Student American Dental Hygienist’s Association (SADHA). Winnie Furnari, clinical assistant professor of dental hygiene, is the Student Council advisor to Jennifer and has also worked with her in clinic.

“Jen wears the hat of leadership very well,” said Professor Furnari. “She is a mother who has gone back to school. Good gracious, all that entails! I did it and know how big it is. You have to really want something badly to take on that kind of workload.”

Jen feels great mutual admiration for both Professors Willis and Furnari. “Honestly, it’s just so amazing to be around these women,” she said. “They are hygienists and professors and proud moms. It’s not like they’re movie stars or rock stars or people you can’t fathom. They are exactly who I want to be when I grow up.”

After she graduates, Jen plans to work as a dental hygienist in a private practice. “As a dental assistant, I

had been watching people do procedures for years that I did not fully understand. I knew the instruments, but I did not know why a particular procedure or instrument was necessarily chosen, which is why working in clinic has been so fascinating—I am the one doing it now.”

Eventually, Jen would like to return to NYU to obtain a master’s degree in order to teach at NYUCD or at another dental school. “My joke is to hopefully have my master’s before my son does,” she said. “He’s 13 now so I still have some time.”

Jen also believes that she has an activist inside her. She would like to make an impact by helping the underserved to have greater access to oral health care.

Professor Willis said, “During our preclinic sessions, Jen often talked about her reasons for choosing the allied healthcare field. Those that resonated with me were her concerns about access to care, interest in working in nontraditional settings, and potential to influence healthcare policy change. She comes to the dental hygiene profession with a sense of what it means to be a member of a community committed to patient care.”

Jen plans to pursue her career with the same zeal she has demonstrated as a student. “A hygienist who just basically shows up and cleans teeth is not who I am,” she said. “I want to change the world, one tooth at a time.”

“I predict a lot of success for Jen,” said Professor Furnari. “She will make NYU extremely proud. I look forward to having her as my colleague someday.”

—Stephanie Susnjara

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Professor Winnie Furnari