



APHA Roundtable Presentation: Youth Engagement and Empowerment: Challenges and Practices  
 November 4, 2013; 12:30 - 2 pm, Boston Convention Center

### Stanford Youth Diabetes Coaches Program

<http://familymedicine.stanford.edu/youth-diabetes-coaches-program/>

Presenter: Liana Gefter, MD [lgefter@stanford.edu](mailto:lgefter@stanford.edu)

Research Team: Lisa Goldman Rosas, PhD MPH; Eunice Rodriguez, Dr.PH MPH; Isabella Chu MPH; Nancy Morioka-Douglas MD MPH

#### Program Description:

- Innovative program partners high schools in underserved communities with medical residency training programs to expand community capacity to address chronic illnesses in a sustainable, spreadable manner
- Medical residents train high school students to “coach” family members with diabetes using principles of chronic disease self-management
- Provides highly structured, scripted 8 week training program for high school students including power point presentations, quizzes, and coaching assignments for each class
- Program Content: communication skills; problem solving; goal setting using action plans; basic diabetes knowledge and blood sugar management; health maintenance: nutrition and healthy meal planning, physical activity, healthy weight maintenance, stress reduction, and developing partnerships with healthcare providers

#### Program Development:

	Project Development	Participating High School(s)*	Physician Partners
2010-2011	PROGRAM DEVELOPMENT -Adapted Stanford Diabetes Self-Management Program for Adults to create Stanford Youth Diabetes Coaches Program	<u>Bay Area:</u> East Palo Alto Academy	Stanford Family Medicine physicians O'Connor Family Medicine Residents (San Jose, CA)
2011-2012	PILOT TESTING -Integrated direct feedback from students and physician instructors to improve program -Standardized curriculum to facilitate impact evaluation -Fostered local partnerships with underserved schools	<u>Bay Area:</u> East Palo Alto Academy Eastside Preparatory Academy Andrew Hill High School	Stanford Family Medicine physicians O'Connor Family Medicine Residents (San Jose, CA)
2012-2013	SPREADING THE PROGRAM -Expanded beyond Stanford -Partnered with Teach for America -Created website for online program dissemination and participant evaluation -Standardized physician instructor training -Elicited formal feedback from school coordinators and physician instructors	<u>Bay Area:</u> Andrew Hill High School Sequoia High School <u>Vallejo, CA:</u> Jesse Bethel High School <u>Atlanta, GA:</u> South Atlanta High School Washington High School Carver High School Mays High School Westlake High School	Stanford Family Medicine physicians O'Connor Family Medicine Residents (San Jose, CA) Kaiser Permanente, Family Practice Physicians (Vallejo, CA) Emory Family Medicine Residents(Atlanta, GA) Morehouse Family Medicine Residents (Atlanta, GA)
2013-2014 planned	PREPARATION FOR NATIONAL DISSEMINATION -modernize curriculum to include technology and interactive elements (based on feedback received) -prepare partnership instruction manual detailing residency program steps needed to partner with underserved schools nationally -create online network allowing students, family members, and physician instructors to stay connected and accountable beyond program duration	<u>Bay Area:</u> Andrew Hill High School Sequoia High School <u>Vallejo, CA:</u> Jesse Bethel High School <u>Atlanta, GA:</u> South Atlanta High School Washington High School Carver High School Mays High School Westlake High School <i>others to be determined</i>	Stanford Family Medicine physicians O'Connor Family Medicine Residents (San Jose, CA) Kaiser Permanente, Family Practice Physicians (Vallejo, CA) Emory Family Medicine Residents(Atlanta, GA) Morehouse Family Medicine Residents (Atlanta, GA) <i>others to be determined</i>

\*all participating schools serve primarily underserved ethnic minority students; >85% qualify for free and reduced lunch



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### Pilot Study 2011-2012

#### Methods:

- Mixed methods, quasi-experimental design used to determine program impact on adolescents' diabetes knowledge, psychosocial assets and evaluation of program acceptability
- High school students grades 9-12 recruited from three underserved high school in the Bay Area serving ethnic minority students with >85% student body qualifying for free or reduced lunch
- 56 student coaches initiated course and 49 completed course and pre- and post-test surveys
- 48 non-participating students completed both a pre- and a post-test survey
- 15 student coaches and 15 family members with diabetes randomly selected to participate in phone interviews designed to assess participants' assessment of the program and whether it encouraged the adoption of healthier behaviors

#### Primary Results:

- >93% of student participants report high level of satisfaction with program usefulness
- Significant increase in students' health knowledge as compared to controls ( $p<.01$ )
- Significant increase in students' psycho-social assets (self-worth and belonging) as compared to controls ( $p<.02$ )
- Student participants reported regular use of action plans for health improvement
- Student and diabetic family member participants reported dramatic changes in diet; increases in physical activity; general improvements in health; improved relationship between student participant and diabetic family member; and appreciation for having a doctor teach the class
- Physician instructors reported increased awareness of community needs and significant increase in intention to support patients' self-management after program participation ( $p<.01$ )

#### Sample Quotes from Qualitative Interviews:

*"For me it meant a lot because my mother and uncles have diabetes.... My favorite part was going home and actually telling my mom things she can do... it was good knowing things that I could actually do to help her."* – Student Coach

*"The program has helped me want to eat healthier and exercise and make a plan to be healthier."* –Sister

*"I liked that the doctor would have us do the weekly goals to show what we want to do to improve our body. I also like how she showed us to make our plates. Now, I make half the plate vegetables."* – Student Coach

*"Before, [my dad] would just eat fast food every night. Now, he makes the salad from my grandparents' garden. He likes it better. Making the action plans and trying to achieve the goals really works."* – Student Coach

*"The program helped me realize what my diet was and how unhealthy I was feeding my kids and myself before. And it also helped me realize the energy I have gotten by watching what I am eating - like not eating McDonald's every day like we were doing."* – Father

*"It helped all of us because my dad is the one who makes the food, so it pretty much helped us all control our eating habits."* – Student Coach