

Active Pathways Project with Georgia Tech

August 29, 2018



DNPAO's Heather Devlin, Mike Waldmiller, Kristine Day, Janet Fulton, and Kelly Cornett worked with Georgia Tech students on their innovative ideas to increase physical activity by changing the built environment.

If you are interested in walking, running, or biking, odds are you are looking for a safe, well-lit, and scenic route. What if your path also included innovative design features, such as solar-powered charging stations or painted pathways leading to local businesses? Perhaps you would be more inspired to walk or ride than drive.

Last spring, the National Center for Chronic Disease Prevention and Health Promotion's Division of Nutrition, Physical Activity, and Obesity (DNPAO) partnered with a class of undergraduate students from the Georgia Institute of Technology (Georgia Tech) to come up with ideas to create safe and inviting places for people of all abilities to walk, ride, or roll to their destinations.

After working together spring semester, four student teams presented their design concepts and prototype ideas to CDC. They also created business plans and detailed project books outlining their processes to develop solutions. The students' final designs were filled with innovative ideas for changing the built environment to support more physical activity. The final design books, presentations, and business plans from this project can be used as a way to inspire new ideas among DNPAO's grantees who are working on increasing physical activity in their communities. Additionally, DNPAO's Creativity and Innovation Workgroup will be hosting a special workshop this fall featuring the Georgia Tech professor who oversaw this project to present about the students' four-phase Design Thinking process.

One team proposed a wayfinding system of printed vinyl decals that could fit within crosswalk lines to guide pedestrians to local businesses and attractions. Another team designed a "pop-up crosswalk" system that could be temporarily installed when a sidewalk is closed during construction. Other ideas included solar-powered charging station benches, hanging tree lights, and even an app designed to use social media for photo display walls along a popular route.

Innovative Partnerships Lead to Innovative Ideas

This type of innovative partnership can foster exciting ideas for public health and benefit communities. The Academic Partnerships Initiative in the Office of the Associate Director for Science (OADS) coordinates opportunities for CDC to work with undergraduate student-led teams from Georgia Tech to develop products that meet program needs and support CDC's mission.

CDC's collaboration with Georgia Tech offers students the opportunity to apply what they learn in the classroom to the world of public health. By giving students the chance to solve real-world public health challenges, OADS is helping create the next generation of innovators in engineering, design, and information technology.

When OADS released a call for proposals to work with students from the Health Design Studio in Georgia Tech's College of Design, DNPAO proposed a project focused on designing structures, signage, and technology to connect activity-friendly routes with everyday destinations, which is a [recommended way to increase physical activity](#) in communities.

"Creativity and innovation are priorities for our branch, so working with students from Georgia Tech brought a whole new perspective on walkability and the built environment," said DNPAO's Physical Activity and Health Branch Chief Janet Fulton. "It was inspiring to see their project ideas come to life at each stage in the design process."

Creating or modifying environments to make it easier for people to walk or bike not only helps increase physical activity but can also make communities better places to live. Innovative design ideas can lead to improvements that encourage the use of existing activity-friendly routes.



The four student teams from Georgia Tech presented their final projects to CDC on April 5, 2018. Photo by Herb Valazquez



One of the Georgia Tech student teams developed a system of modular crosswalk stickers to improve wayfinding. Photo by Michael Armstrong, May Iyer, Anna Taute, Kelsie Thomas

Behind the Design: Following a Design-Thinking Approach

For their projects, the student teams followed certain design criteria. First and foremost, they needed to increase the use of an existing activity-friendly route near Georgia Tech’s campus that is between at least two destinations for people who do not use motorized transportation, including walkers, runners, bikers, and skateboarders.

Student teams also were encouraged to:

- Include a way to track the number of nonmotorized users or their types of activity.
- Use map technology for navigation.
- Design something that would be easy to install and maintain.

The best designs would work for different locations and would also be affordable for cities, universities, businesses, or others who might use them.

The students met with CDC program representatives during the four phases of the project—Discover, Define, Design, and Deliver—to discuss their ideas and get feedback.

“My favorite part was the Discover phase of the process,” said Kelly Cornett, a McKing contractor and program coordinator who oversaw the project. “The students demonstrated new insight simply through the types of tools and research they used to better understand physical activity behavior in their community.”

DNPAO Public Health Advisor Mike Waldmiller noted that the final designs and the students’ creative thinking process can inspire our grantees in their own communities. “I look forward to sharing some of the low-cost and quick-win ideas from this project with my state- and local-level awardees,” he said.

This *Inside Story* by Kelly Cornett, Anne Stanford

