

“What am I most likely to die of?”

This was a grim question to start a project with, but it certainly intrigued the 75 eleventh grade students who grappled with it. Through interviews with family members, scientists, and medical professionals, the students homed in on four main areas of disease to study.

For the next twelve weeks, they used art, biology, and humanities to pursue the essential question of “How can we take control of our health destinies?” The four major disease groups that had the greatest incidence among students’ families also happened to be the ones that most medical research is devoted to: cancer, diabetes, neurological disease, and cardiovascular disease.

Biology teacher Matt Leader had worked over the summer in a University of California (UCSD) genomics lab with PhD candidate Danjuma Quarless. Through a National Science Foundation grant, they were able to invite researchers from various labs to collaborate. Researchers visited Matt’s biology class every week to teach about what was currently known and unknown about these diseases. Various hands-on labs supported and made more real the information shared by these expert visitors.

Students tracked their own and their families’ health behaviors over five weeks, and analyzed and wrote about the results. Based on this research, as well as their research into their family medical history, they wrote preventative health plans for themselves and their families, including recommendations for food and physical activities.

In humanities, each student recorded an oral history interview with a family member about a disease that had affected the family. Students then edited the interviews and added visuals to create a video on iMovie.

LEARNING GOALS

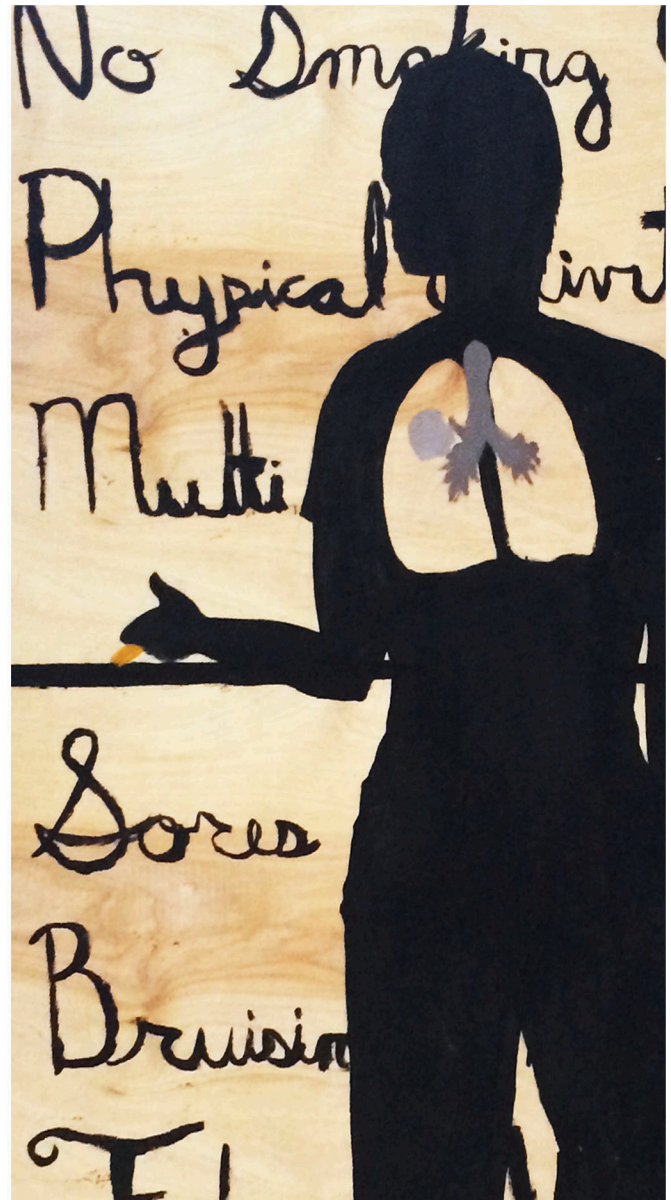
- To understand the scientific basis of diabetes, cancer, neurological and cardiovascular disease
- To write and follow a five-week preventative health plan
- To create a compelling video based on family history
- To use visual arts to express ideas about health and society

In art, students created multiple pieces around the themes they were studying. They created “Pieces of Me” triptych paintings expressing their identity, history, and biology. One of the visiting researchers, David Goodsell, was a molecular biologist and also a painter, who painted the cellular manifestations of disease. From him, the students got the idea to make cellular paintings. They also decided to interview the scientists that they connected with and ask them, “How would you visualize what you do?” The students translated these answers into large group paintings that were commissioned by and eventually gifted to the participating labs.

EXHIBITION

The students created four main areas of the exhibition, each corresponding to one of the four disease groups. In each section, they displayed paintings, writing, and listening stations with their oral history videos. They also re-enacted their favorite labs, so that attendees could have a hands-on experience dissecting pigs to find hidden tumors, or isolating a gene that caused a particular disease.

Danjuma hosted a second exhibition at UCSD. All of the graduate students and research scientists who participated, as well as others, were invited. The commissioned paintings that were gifted to participating labs are on permanent exhibition.



A high-angle photograph of a student with blonde hair in a ponytail, wearing a white paint-splattered lab coat, kneeling on a sidewalk. They are using a brush to paint large, bold, yellow letters onto a dark, irregularly shaped mural. The mural features the words 'PEOPLE' and 'WELLNESS' in a stylized font. To the left of the student, there are various art supplies including a paint palette, a brush, and some white paper. The scene is brightly lit by sunlight, casting long shadows.

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