
Educating the Under-Served on Diabetes Prevention and Healthy Lifestyle Habits

Memphis Tilth

Master of Public Health

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Overview

- Background
- Memphis Tilth
- Projects
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- Conclusion

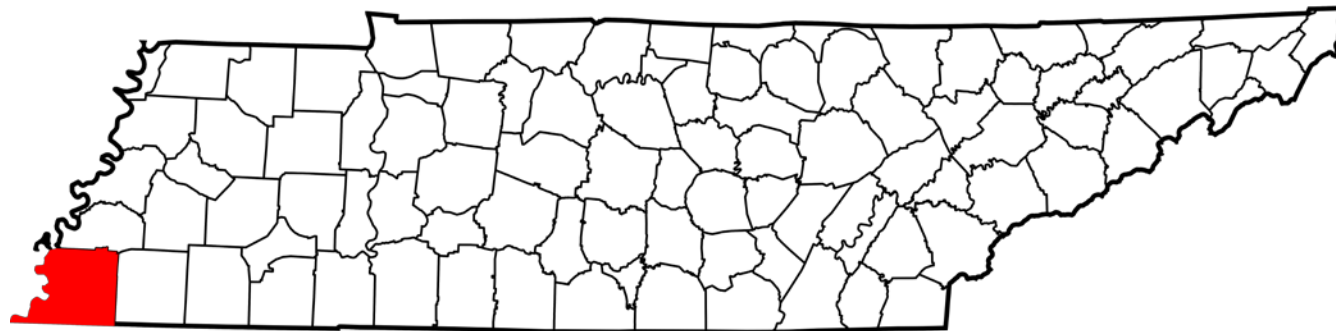


Background



Memphis

- Location: Shelby County, TN
 - 763.17 mi²
 - Population: 936,961
 - Racial makeup: 54% black, 41% white, 6.5% Hispanic, 3% Asian.



https://upload.wikimedia.org/wikipedia/commons/thumb/7/70/Map_of_Tennessee_highlighting_Shelby_County.svg/7814px-Map_of_Tennessee_highlighting_Shelby_County.svg.png

Socioeconomic Status and Health

- Social determinants of health are a large predictor of health.
- Lower socioeconomic status (SES) is linked to higher rates of morbidity and mortality.
- Lower SES can lead to increased lifestyle and environmental risk factors for type 2 diabetes.



https://icons-for-free.com/icon-bankrupt_bankruptcy_broken_piggy_bank_cash_coins_financial_problem_877011/

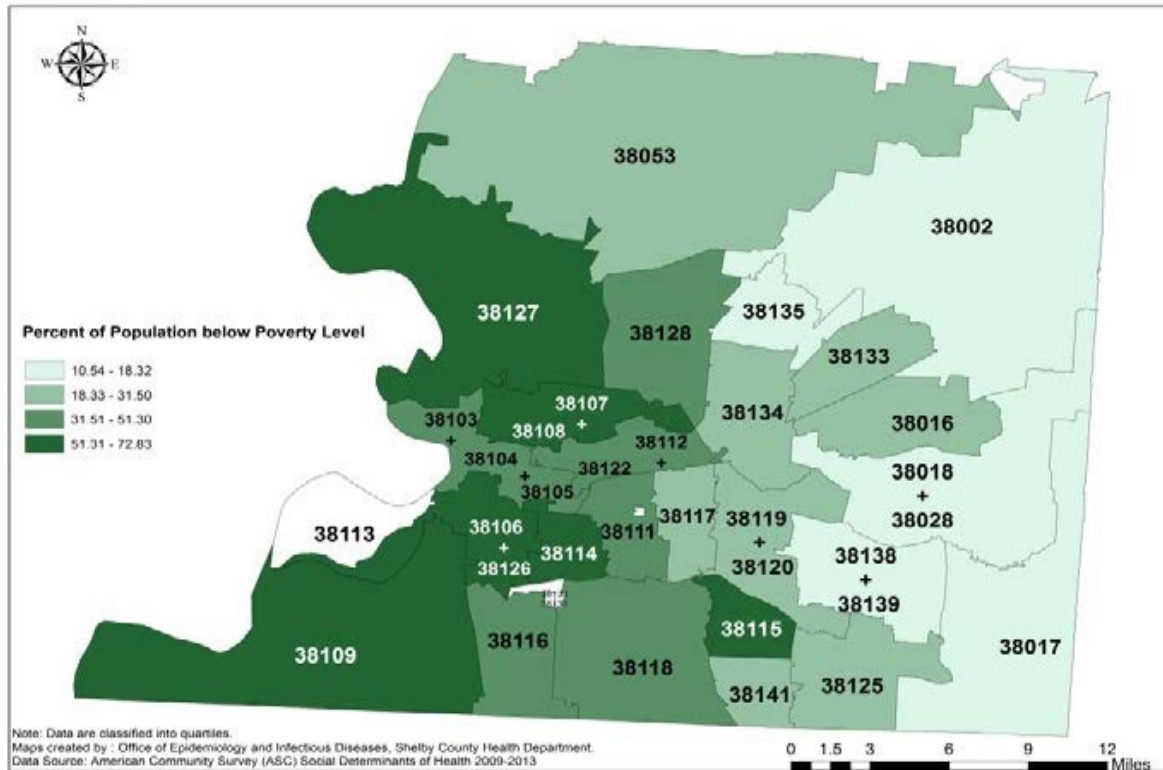


<https://www.healthhub.sg/programmes/87/diabetes-mellitus>

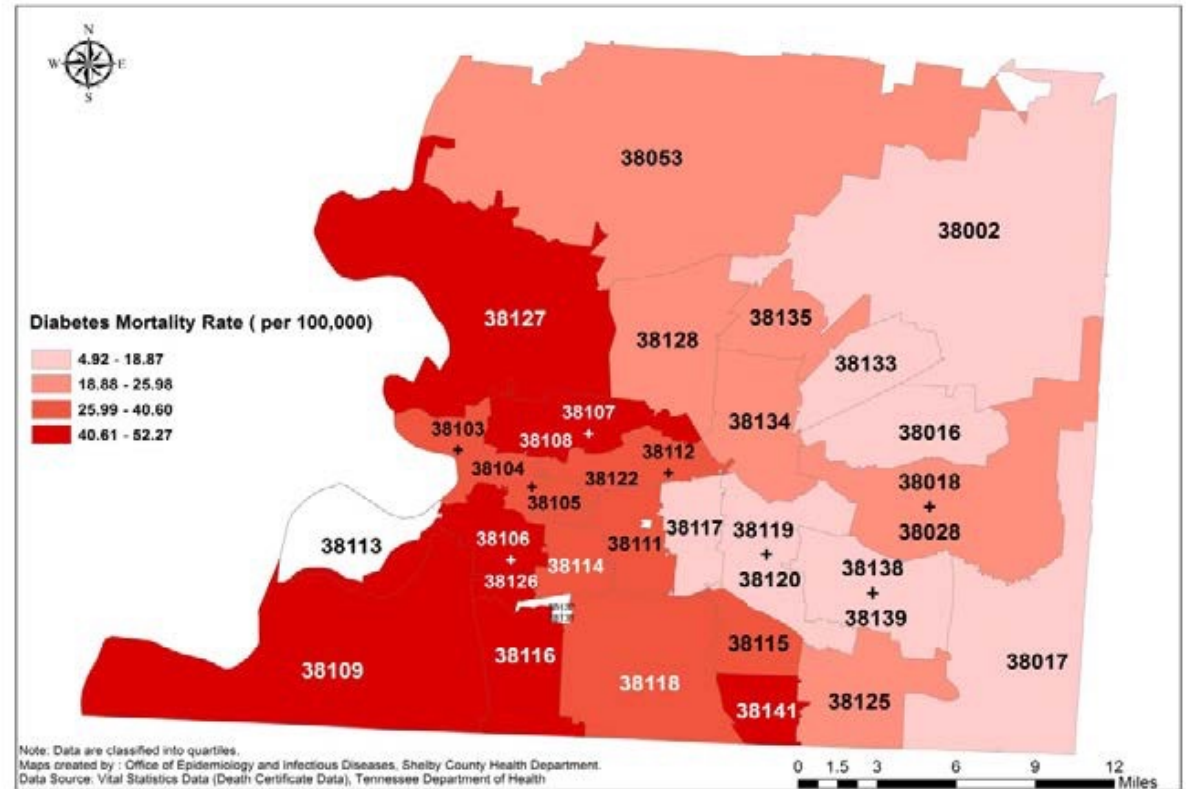
Poverty Versus Diabetes Mortality Rate



Percent of Population below Poverty Level in Shelby County, 2009-2013

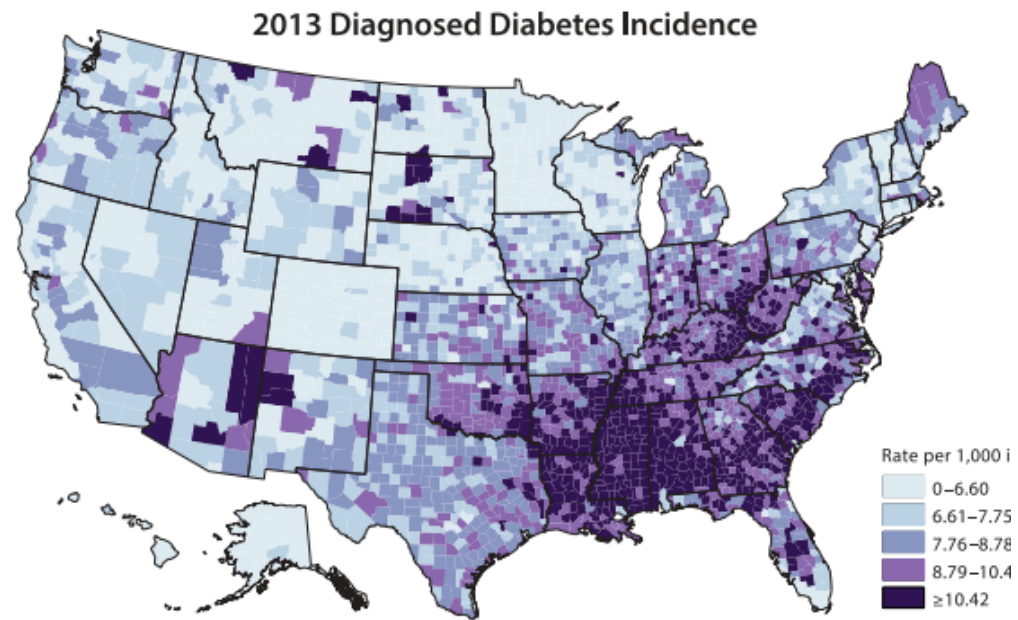


Diabetes Mortality Rate by Zipcode Shelby County, 2009-2013



Diabetes

Figure 3. Age-adjusted, county-level incidence of diagnosed diabetes among adults aged ≥ 20 years in the United States, 2013



⚠ Data unavailable for U.S. territories.

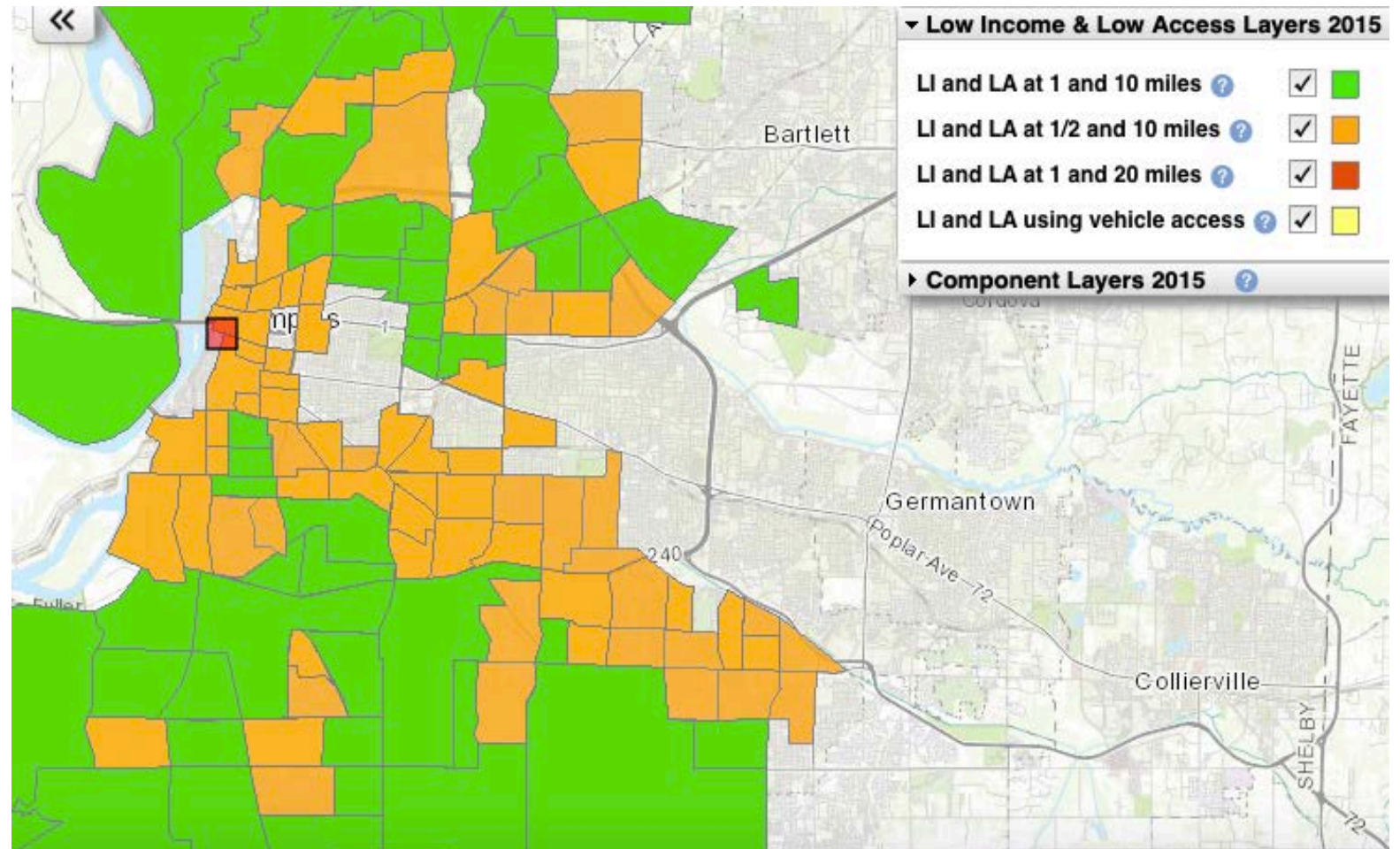
⚠ Source: United States Diabetes Surveillance System.

<https://www.cdc.gov/diabetes/data/statistics-report/incidence-diabetes.html>

- “Diabetes Belt”
- Shelby County: 12%
- United States: 9.4%
- Shelby County’s poverty, child poverty, diabetes, participation in diabetes screening, obesity, fast food restaurant concentration, and low food access were all worse than the national average.

Food Access

- Areas with low income and low access in Shelby County



USDA Economic Research Service. (2017, May 18). *Go to the Atlas*. Retrieved February 14, 2019, from <https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas/>



MEMPHIS TILTH



Memphis Tilth

- Non-profit organization
- Mission is to “cultivate collective action for an economically sustainable, socially equitable, and environmentally sound local food system.”
- Located in a food desert – zip-code 38126
- Addresses affordability, access, and education



Garden and Kitchen Elective

- Funded by Tennessee Department of Health, Project Diabetes grant
 - Rewarded to community partners who had a focus on primary prevention by reducing obesity as a risk factor for diabetes.
 - Goal 1: Make physical activity an integral and routine part of life.
 - Goal 2: Create food and beverage environments that ensure that healthy food and beverage options are the routine, easy choice.
- Partnership with Advance Memphis
- Classes are twice a week for six weeks



Garden and Kitchen Elective

Goal 1

- Promotes physical activity through the garden while also enhancing the built environment.

Goal 2

- Promoting access and affordability to food.



<https://www.memphistolth.org/st-paul-garden>

Garden and Kitchen Elective

Goal 2

- Increase familiarity of vegetables and empower participants to cook healthy foods for themselves.
- Encourage fruit and vegetable consumption and decrease unhealthy food consumption to promote healthier lives.



<https://www.memphistilth.org/garden-and-kitchen-elective>

Alpha Omega Veterans Services

- Non-profit organization who serves displaced veterans through providing housing and programming with the goal of reintegrating them into society.
- Multiple sites throughout Memphis
- Similar garden and kitchen classes



<https://www.memphistilth.org/aovs>

Alpha Omega Veterans Services

- Goal is to increase fruit and vegetable consumption through engaging veterans in production, cooking classes, and marketing.
- Develop an added-value product to sell to also help learn vocational skills.





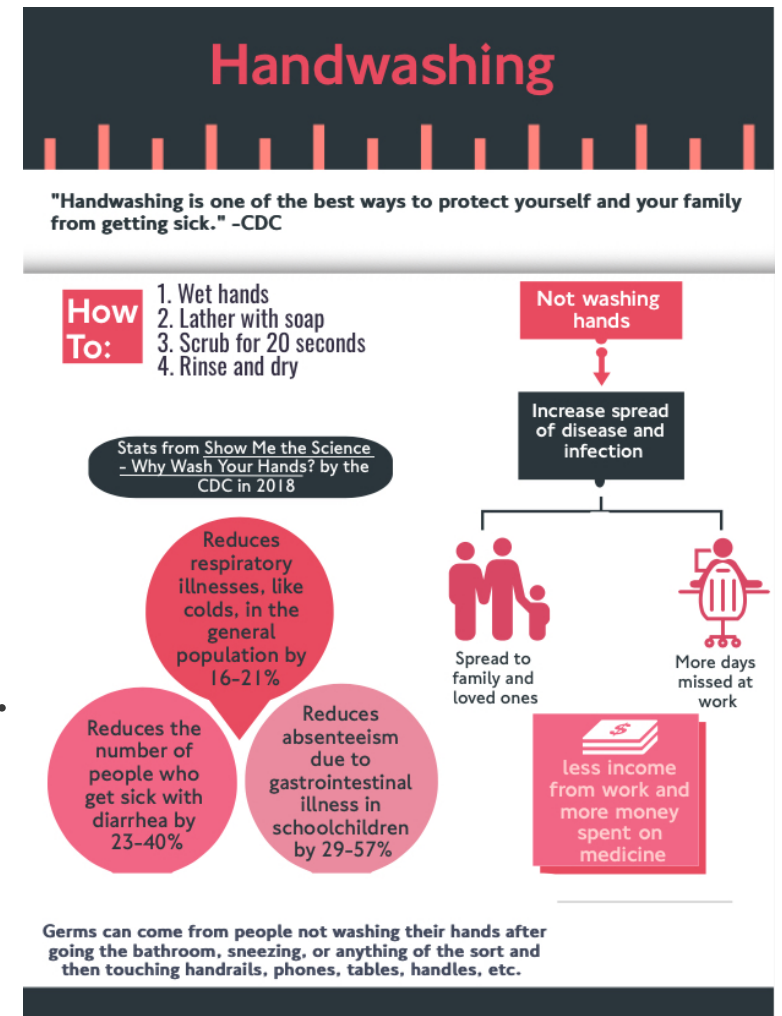
PROJECTS



Project #1

Infographic on the impact of washing hands

- Delivered to kitchen and garden classes
- Purpose: reinforce teaching on handwashing while stating benefits of handwashing that appeal to the target audience, such as income and family.
- Hung in community kitchens and near handwashing sinks.



Project #2

Infographic on the benefits of farming

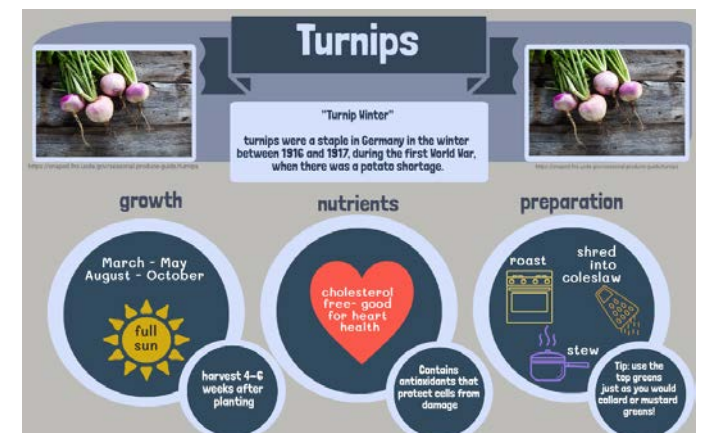
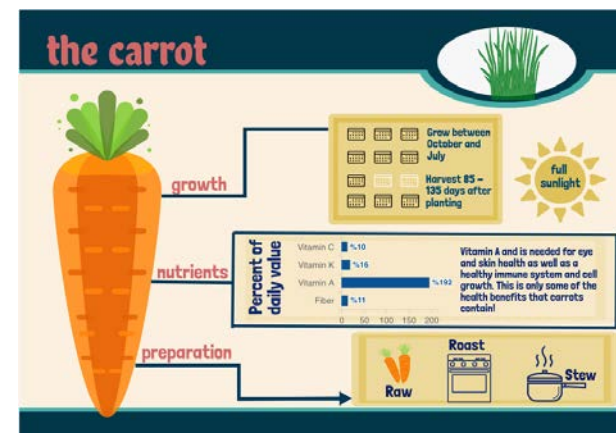
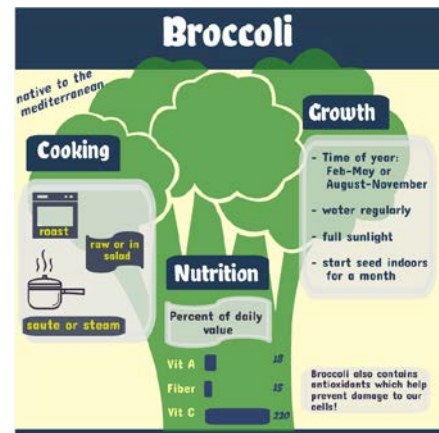
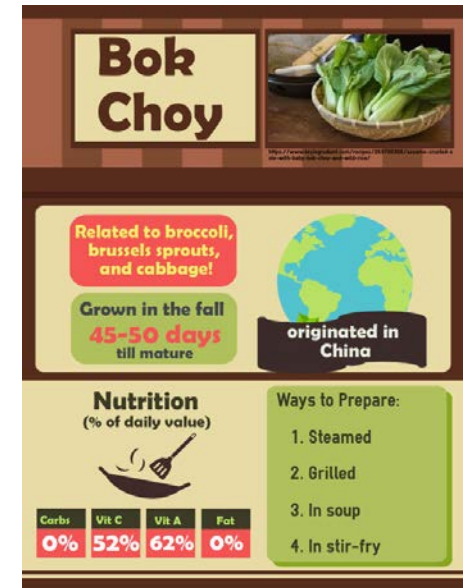
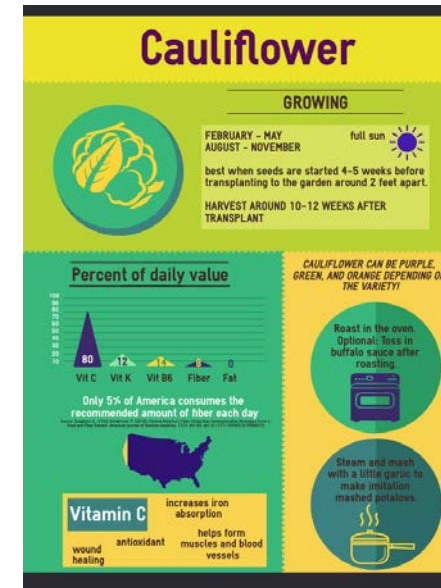
- Delivered to veterans garden organizer
- Purpose: propose possible physical, social, and mental benefits of farming to entice veterans with past trauma to ask questions about the information and to instill a desire to want to reap those benefits by working in the veterans garden.
- To be handed out and discussed in veterans garden class



Project #3

Infographics on five seasonal produce items

- Delivered to kitchen and garden classes
- Purpose: reinforce material taught in class and empower students to make changes that lead to increased vegetable consumption and an overall healthier life



Project #4

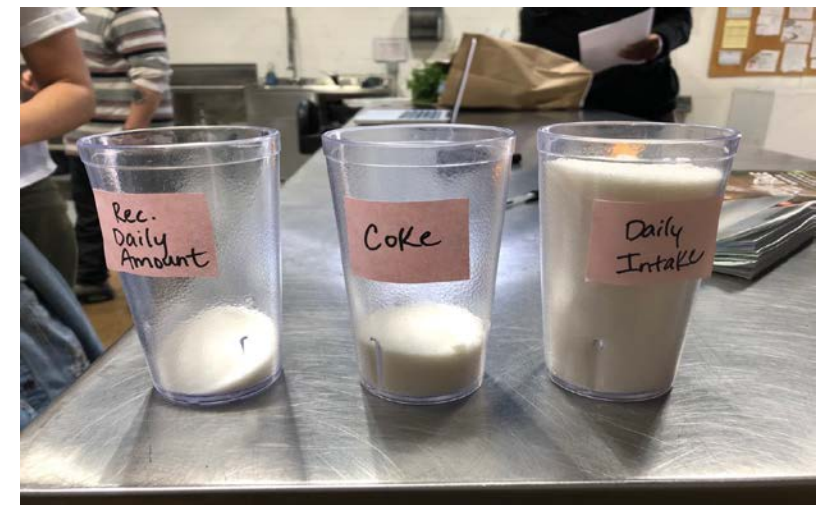
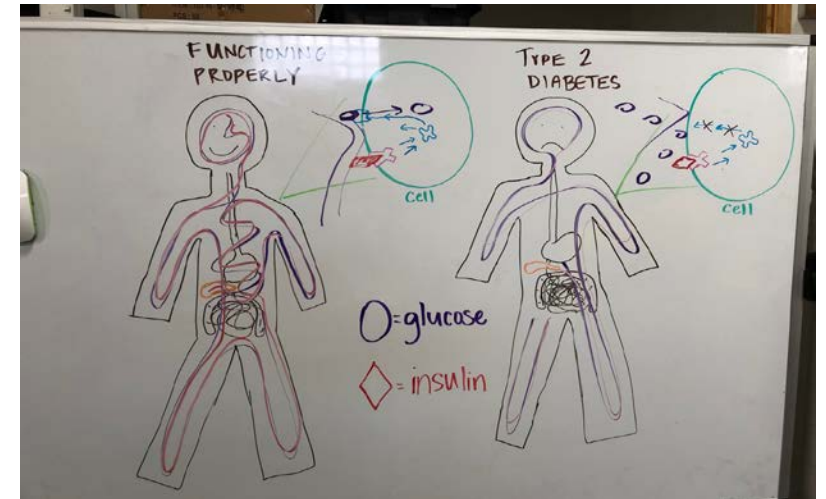
PowerPoint on the most recent data on food-related illnesses and diseases in target Project Diabetes zip codes

- Delivered to Kitchen Elective
- Purpose: to make the community aware of the health disparity within Memphis and the greater need in the 38126 zip-code and also how Memphis Tilth is impacting that through Project Diabetes.

Project #5

Created and taught a lesson on type 2 diabetes

- Delivered to Kitchen Elective
- Purpose: to empower students with the knowledge of diabetes and how to prevent and manage it



Project #6

Created a lesson plan on fermentation, probiotics, and kombucha

- Delivered to the veterans kitchen organizer
- Purpose: create lesson plan that explains fermentation, probiotics, and kombucha in an easily understandable way so that the veterans in the kitchen class can be empowered with knowledge about this topic when the kitchen organizer teaches during the week of alternative medicines

Project #7

Created questionnaires to evaluate infographics

- Used *Developing and Assessing Nutrition Education Handouts (DANEH): Testing the Validity and Reliability of the New Tool* to guide question development
- Evaluation of five constructs: content, behavior focus, cultural sensitivity, written word, organization and readability
- Made changes to the infographics based on the results from the questionnaires given to professionals and participants to better meet the needs of the participants



COMPETENCIES



Number and Competency	Description
6	<p>Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels</p> <p>Worked in underprivileged zip-codes gathering data and creating materials for citizens of those underprivileged areas, which are the product of structural bias and social inequality.</p>
8	<p>Apply awareness of cultural values and practices to the design or implementation of public health policies or programs</p> <p>Create material so that underserved populations in AOVS and Project Diabetes can easily understand vital health concepts.</p>
18	<p>Select communication strategies for different audiences and sectors</p> <p>Info-graphics for various topics that are easily understandable to funders, the public, and participants of the classes. Prepared materials for and taught kitchen class with strategies that would engage the participants and promote lasting impact.</p>
19	<p>Communicate audience-appropriate public health content, both in writing and through oral presentation</p> <p>Communicate health knowledge and garden-to-table methods to the participants of garden and kitchen classes in different ways such as oral presentation with conversation, short videos, hands-on training and infographics.</p>
21	<p>Perform effectively on interprofessional teams</p> <p>Shadow and partner with various team members with different roles in the garden, kitchen, or office in different programs within Memphis Tilth such as Alpha Omega Veterans Service, Project Diabetes, and Grow Memphis.</p>

Competency #6

Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels

Accomplished by:

- Internship fulfilled in an impoverished neighborhood with participants who were displaced or unemployed
- Gathered and reviewed poverty, health, and food access by zip-code to analyze underlying disparity to implement in a community outreach presentation
- Attended Kitchen and Garden Elective and toured veterans sites

Competency #8

Apply awareness of cultural values and practices to the design or implementation of public health policies or programs

Accomplished by:

- Taught diabetes to the Kitchen Elective with awareness of participants' culture
 - Used conversational and interactive methods along with visuals
- Evaluated cultural acceptance of infographics through questionnaires

Competency #18

Select communication strategies for different audiences and sectors

Accomplished by:

- Selecting infographics for participants
- Selecting informal presentation for diabetes lesson to participants
- Selecting formal format for fermentation lesson
- Selecting formal presentation for the community

Competency #19

Communicate audience-appropriate public health content, both in writing and through oral presentation

Accomplished by:

- Developing and delivering infographics and questionnaires from professional and participant feedback
- Presenting type 2 diabetes in an oral presentation using visual aids
- Developing a short formal presentation to be delivered audiences in the greater Memphis area on the disparity within the 38126 zip-code.

Competency #21

Perform effectively on interprofessional teams

Accomplished by:

- Shadowing multiple roles at Memphis Tilth
- Working with staff to create desired deliverables
- Attending a meeting pertaining to grant funding and a meeting with the advisory board



CONCLUSION





QUESTIONS?





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