Lesson 8 Who decides?

#### Overview

In this lesson, students are introduced to a series of quotes from individuals who hold a variety of views concerning the rising rates of type 2 diabetes and obesity in the United States. Students are introduced to the ethical principles *Respect for Persons, Justice*, and *Maximizing Benefits/Minimizing Harms* in order to better understand the wide range of views on this subject. Next, students learn about the Healthy, Hunger-Free Kids Act of 2010 and participate in a *Structured Academic Controversy* about the policy, eventually coming to their own well-supported position on the issue.

## **Enduring understanding:**

- Public health policies, personal choice, community resources, socio-economic status and other factors all contribute to a person's risk of developing type 2 diabetes and obesity. These factors also provide productive areas for preventative measures.
- The field of ethics can help us consider alternate viewpoints in the face of conflicting choices, and can provide an organizing framework to help in decision-making.

**Essential question:** As a society, how do we make the best decisions about policies that affect many people?

# **Learning objectives**

Students will be able to:

- Understand other positions on an issue, even if they don't agree with it.
- Engage in shared decision-making.
- Support their own position using the principles Respect for Persons, Justice, and Maximizing Benefits/Minimizing Harms.

Time: One to two 50 minute periods

This lesson connects to the Next Generation Science Standards in the following ways:

Constructing Explanations and Designing Solutions

HS-LS2-7: Design, evaluate and refine a solution to a complex, real-world problem

Engaging in Argument from Evidence:

**HS-LS2-6:** Evaluate the claims, evidence and reasoning behind currently accepted explanation or solution to determine the merits of arguments.

**HS-LS2-8:** Evaluate the evidence behind currently accepted explanations to determine the merits of arguments.

Ties to Nature of Science: Science is influenced by society and society is influenced by science.

#### **Materials**

Materials	Quantity
Computer and projector	1 per class
PowerPoint presentation found at http://gsoutreach.gs.washington.edu/ (see GEMs Instructional Materials)	1 per class
Teacher Resource: A variety of views on type 2 diabetes and obesity	1 per class
YouTube Video: Uproar Over School Lunches <a href="https://www.youtube.com/watch?v=olZVsiH3qry">https://www.youtube.com/watch?v=olZVsiH3qry</a>	
Student Sheet 8: Structured Academic Controversy Worksheet	1 per student
Student Resource 8.1: Background on Healthy, Hunger-Free Kids Act	1 per student
Student Resource 8.2: Position Statement: FOR	1 per student for half the class
Student Resource 8.3: Position Statement: AGAINST	1 per student for half the class

# **Lesson Preparation**

Make copies of materials, as indicated above. *Student Sheets* are needed one per student, and *Student Resources* may be put in page protectors and reused with subsequent classes.

#### **Procedures**

Part 1 (Engage):

Views on diabetes and obesity

(10 minutes)

1. Using the PowerPoint presentation found at <a href="www.gsoutreach.gs.washington.edu">www.gsoutreach.gs.washington.edu</a>, introduce the lesson to students.

Slide 1



Since students may be sharing personal viewpoints during this lesson, it is especially
important to remind them of your classroom discussion norms, or set some norms if you
have not already done this. For example, students should speak one at a time, hear all
sides equally, listen well enough to respond, and back up their opinions with clear
reasons.



- 3. Pass out the quotes from various individuals with views on the conditions leading to type 2 diabetes or the obesity epidemic, found in Teacher Resource: A variety of views on type 2 diabetes and obesity.
- 4. Introduce the quotes using the PowerPoint slides. Have students read the quotes found on their cards as the correct slide appears.

Slides 2 - 6



5. Ask students, "How do we make decisions about issues that affect all of us, when there are so many competing viewpoints?"

Part 2 (Explore/Explain) Introduction to ethical principles (10 minutes)

- 6. Explain to students that the field of ethics can help us determine the best course of action about issues for which there are many competing views. Because we live in a democratic society made up of various religious, ethnic, racial and political groups, the field of ethics can help us consider alternate viewpoints, and can provide an organizing framework to help in decision-making.
- 7. Introduce students to *Principles-based ethics* which include the following principles:

Respect for Persons (Autonomy)	Acknowledges a person's right to make choices, to hold views and to take actions based on personal values and beliefs. It emphasizes an individual's autonomy and the responsibility a person has for his or her own life.
Justice	Stresses fairness and giving people equal treatment. Justice dictates that resources, risks, and costs should be distributed equitably.
Maximizing benefits/ Minimizing harms	Stresses "doing good" and "doing no harm"—to provide benefit to people and contribute to their welfare, while avoiding intentionally inflicting harm on others.

Source: Bioethics 101, Northwest Association for Biomedical Research, NWABR.org

Slides 7 – 11 provide students with background on principles-based ethics.



- 8. Ask students if the concepts behind the ethical principles are familiar to them, and where they think these principles came from. Let students know that the historical basis for the principles goes back thousands of years. They are rooted in, among others, Aristotle's teachings, the Hippocratic Oath doctors take before practicing medicine ("do no harm"), the Nuremburg Code created after World War II, and the Belmont Report from the 1970s.
- 9. The principles represent different ways of thinking about issues that affect groups of people living together in societies. As such, while ethical principles may conflict with each other, or different groups of people may prioritize different principles, no one principle is "right" while another is "wrong."
- 10. Ask students to revisit the quotes from their individual and see if they can identify the ethical perspective that person might be coming from. It may be helpful to know that in this particular issue, the greatest tension is between the principles *Respect for Persons* and *Justice*, though one could make an argument for *Maximizing benefits and Minimizing risks* for a few quotes (see note).

Slide 12



**Note:** The principle *Maximizing* benefits/Minimizing harms comes into play most directly when the speaker refers to policies or practices that may cause harm, such as conscientious efforts on the part of food manufacturers to get people "hooked" on processed food, or comparing the food companies to the tobacco companies.

11. If students have trouble identifying the ethical perspective of their speaker, share the following table with them.

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With this Principle	You may see these key words	
Respect for Persons	Rights, Individual, responsibility, self-determination	
Justice	Social/society, wealth, access, fairness, equity	
Benefits/Risks	Balance, weighing risks and benefits, doing good, doing harm	

Part 3 (Elaborate) Structured Academic Controversy (30 min) Structured Academic Controversy (SAC) is a small group deliberation model where students explore both sides of an issue before examining their own personal views. Active listening is an important part of the process. The topic for the SAC will be the *Healthy, Hunger-Free Kids Act of 2010*. Students will receive background information on the topic, watch an ABC news report and receive position statements about the issue during the Structured Academic Controversy.

- 12. Ask students to get into groups of four. Two students will initially represent the FOR position and two will represent the AGAINST position to the question.
- 13. Before getting into the topic, share with students the framework of a Structured Academic Controversy. The basic framework is outlined below:

**Note:** Students will have a chance to justify their personal position on the issue at the end of the SAC, so encourage them to not be too concerned about the side they are initially asked to represent.

- Two students represent the **FOR** position; two argue the **AGAINST** position.
- Each pair watches a video and/or reads background for their position and prepares their argument.
- Pair A presents while Pair B listens.
- Pair B paraphrases Pair A's arguments and asks clarifying questions only (this is not the time for discussion).
- Pair B presents while Pair A listens.
- Pair A paraphrases Pair B's arguments and asks clarifying questions only.
- Students drop their assigned roles and discuss their own personal positions.
- Students clarify areas of agreement and disagreement.
- 14. Introduce the topic of the *Healthy, Hunger-Free Kids Act* by passing out Student Resource 8.1—Background on the *Healthy, Hunger-Free Kids Act* and reading it either individually or as a class.
- 15. Show students the ABC video *Uproar over School Lunches* found at <a href="https://www.youtube.com/watch?v=olZVsiH3qrY">https://www.youtube.com/watch?v=olZVsiH3qrY</a>. (4:10)
- 16. Introduce the question that students will be exploring during the Structured Academic Controversy:

**Lesson Eight:** Who decides?

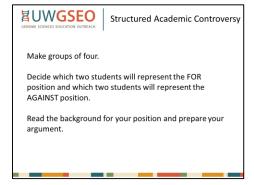
# Should the government play a role in implementing school policies that address obesity and nutrition?





- 17. Distribute Student Sheet 8—Structured Academic Controversy Worksheet to each student.
- 18. Have students meet in their FOR (yes, the government should play a role) or AGAINST (no, the government should not play a role) pair groups to discuss the video and brainstorm points that support their position.
- 19. In their pair groups, have students fill out as much as they can in the *Relevant Facts* and *Individuals and their primary concerns* sections of Student Sheet 8-- *Structured Academic Controversy Worksheet*.
- 20. After adequate time for discussion, hand out additional information supporting each stance found on Student Resource 8.2—FOR Position Statement, and Student Resource 8.3—AGAINST Position Statement. Students should continue representing their assigned position at this point, not their personal position.

Slide 14



**Note:** Slides 14, 15 and 16 can be used to walk students through the steps of the SAC, if needed.

21. Ask each pair to read the additional background information supporting their position. Using all of the resources available, have each pair plan a presentation of their position and arguments. Students should focus on the *three most important arguments*.

22. Have one side present, while the other side listens and then repeats. Have one side presents their three important arguments to the other side. The other side needs to listen carefully, take notes, and then paraphrase the arguments back in order to be sure that they understand them, while asking clarifying questions as necessary. Emphasize that there is no discussion at this point. The presenters should be satisfied that their position has been heard and understood.

Slide 15



- 23. Have the pairs switch and repeat the process.
- 24. **Next, ask students to drop their roles.** Challenge students to proceed as their own individual selves with their own opinions and positions. They should use information from their own experiences as well as the background readings. Ask students, "See if you can clarify areas of agreement and disagreement. Feel free to change your mind."

Slide 16



25. While working through the Structured Academic Controversy, students should continue to fill out Student Sheet 8—Structured Academic Controversy Worksheet.

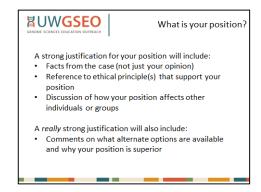
#### Closure (Evaluate)

26. Gather student attention back from the small groups, and ask students to share the **common ground** reached in the argument (referring to the next-to-last part of Student Sheet 8—Structured Academic Controversy Worksheet).



- 27. Ask students to identify the extreme positions on the spectrum of stakeholder views. What would happen if there was *no* government involvement whatsoever? What if there was *total* government involvement? How do extreme positions advance a cause? Or does change come from a more central stance?
- 28. After students have fully discussed the issue, have them write up their own personal position on this issue, as described in the last box of the *Structured Academic Controversy Worksheet*. Tell students that a strong position will incorporate facts from the case, not just their opinions. Their position can be strengthened by reference to supporting ethical principle(s), and an explanation of how their position will impact other individuals or groups.

## Slide 17



29. Ask students to reflect on today's lesson consider the question:

"How does this relate to our Driving Question: **How can the growth of type 2 diabetes** in the Yakima Valley be slowed?"

30. How can knowledge gained today be incorporated into their Call to Action products?

**Note:** As students have now completed the curricular portion of the Diabetes Unit, It is important to allow sufficient time for groups to work together on their Call to Action products and revisit the *Chalk Talk* posters from Lesson One. At least two class periods are recommended. More information can be found in the *Assessment* portion of this unit.

#### **Resources and Extensions**

- Teachers who would like more information on ethical theories and their application in the classroom will find lessons, activities, student handouts and teachers resources in An Ethics Primer: Lesson Ideas and Ethics Background. The curriculum unit Bioethics 101 provides a sequential set of lessons to introduce ethics into the science classroom. Both curricula are produced through the Northwest Association for Biomedical Research and available free for download from NWABR.org.
- A video of a teacher describing the practice of Structured Academic Controversy and possible modifications can be found here: <a href="http://vimeo.com/39005142">http://vimeo.com/39005142</a>
- A number of the quotes came the following article, or reader responses to the article:

Moss, Michael. "The extraordinary science of junk food." The New York Times. February, 2013.

[http://www.nytimes.com/2013/02/24/magazine/the-extraordinary-science-of-junk-food.html?pagewanted=all& r=0]

As an extension, students could read the article and further analyze the ethical perspective of chosen reader comments, of which there are many.

• Other quotes came from the episode "In Sickness and in Wealth" from the film *Unnatural Causes* available from California Newsreel.

Lesson Eight: Who decides?

Teacher
Pages

# **Lesson Eight** A variety of views on type 2 diabetes and obesity



**Instructions:** Print out and cut apart the following cards to give to groups of students. Cut off the ethical principle written horizontally on each card, before giving the cards to students.

"If you're in an impoverished community and don't have access to health choices for food and safe places to exercise, you're tremendously disempowered when it comes to a disease like diabetes. That has nothing to do with how much medication is in the pharmacy and everything to do with a sense of control, a sense of self-empowerment a sense of hope for the future."  Source, Unnatural Causes	Justice
"It's not enough to talk about individual behavior and feel that if we could just get people to exercise more and eat more fruits and vegetables everything would be alright. That is not the case. The bigger issues are the social conditions that drive the ultimate health status of populations."  Adewale Troutman, MD, Director of Louisville Metro Public Health and Wellness	Justice
"It's about human rights, it's about addressing the social determinants of health, it's about fairness, it's about health equity and social justice."  Adewale Troutman, MD Director of Louisville Metro Public Health and Wellness	Justice
"So why are the diabetes and obesity and hypertension numbers still spiraling out of control? It's not just a matter of poor willpower on the part of the consumer and a give-the-people-what-they-want attitude on the part of the food manufacturers. What I found, over four years of research and reporting, was a conscious effort — taking place in labs and marketing meetings and grocery-store aisles — to get people hooked on foods that are convenient and inexpensive."  Michael Moss, The Extraordinary Science of Addictive Junk Food, New York Times, Feb. 20, 2013	Harms and Benefits
"People need to choose more activity, less screen time and believe they can decide to eat in a healthy way. We ultimately are responsible for the lives we lead."  Reader comment from <i>The Extraordinary Science of Addictive Junk Food</i> : Phil from Canada	Respect for Persons

"In America, it's the strongest relationship that you'll find pretty much anywhere that health equals wealth."  Tony Iton, Director, Public Health Department, Alameda County, California	Justice
"The vast majority of improvements in health over the last century have had very little to do with medical innovation. What really counts isnonmedical things, like thinking about the distribution of wealth in our society, or providing public health infrastructure, or better education for people, or better housing. All of those things that are not medical phenomena."  Unnatural Causes	Justice
"As a culture, we've become upset by the tobacco companies advertising to children, but we sit idly by while the food companies do the very same thing. And we could make a claim that the toll taken on the public health by a poor diet rivals that taken by tobacco."  Kelly Brownell, Professor of Psychology and Public Health, Yale University	Harms and Benefits
"Some people say healthy food is too expensive. A bag of potato chips costs over \$3.00. A bag of candy costs about \$3.00. I just bought a bag of baby spinach for \$1.98. I bought a bag of fresh snap peas for \$2.98. Frozen vegetables (at WalMart) run about \$1.50. Different parts of the country have different price ranges, but where I live, fruits and vegetables are cheaper than candy and potato chips."  Reader comment from The Extraordinary Science of Addictive Junk Food: Linda from Oklahoma	Respect for Persons
I like junk food as much as anybody. But when I finally got on the scale, I realized I had to lose 20 pounds. So I went on a high-protein, higher-fat, low-carbs, low-sugar regimen, and lost 20 pounds in 2 months - with minimal exercise. And I did not have as single Dorito or other chip. It's called being disciplined and motivated. If you are disciplined and motivated, you are, you can go "cold turkey" off junk food in one day. This is not heroin or crystal meth, for goodness sakes.  Reader comment from <i>The Extraordinary Science of Addictive Junk Food</i> : Joseph from Albany	Respect for Persons
"People could point to these things [Lunchables] and say, 'They've got too much sugar, they've got too much salt. Well, that's what the consumer wants, and we're not putting a gun to their head to eat it. That's what they want. If we give them less, they'll buy less, and the competitor will get our market. So you're sort of trapped."  Geoffrey Bible, former C.E.O. of Philip Morris	Respect for Persons

Name:	Date:	Period:
Structured Academic Controversy Worksho	eet	
The Issue: Should the government play a role in in obesity and type 2 diabetes?	nplementing school p	olicies that address
Team Members <b>FOR:</b> (Yes, the government should	play a role)	
1 2		
Team Members <b>AGAINST</b> : (No, the government sho	ould not play a role)	
1. 2.		
Relevant facts:		
Individuals (or groups) and their primary concerns:		

**Structured Academic Controversy Worksheet (continued)** 

Main argument(s) <i>FOR:</i> 1.	Main argument(s) <b>AGAINST:</b> 1.	
2.	2.	
3.	3.	
List of possible solutions: (What are the options the middle ground?)	furthest out on each side? What options are in	
Common ground reached:		
My position is On a separate piece of paper, explain your position on this issue. To support your position, incorporate FACTS from the case, ties to ETHICAL PRINCIPLE(S), and describe how your position		
will AFFECT OTHER INDIVIDUALS or groups.		

## Background on Healthy, Hunger-Free Kids Act

In 2010, Democrats and Republicans worked together to pass the Healthy, Hunger-Free Kids Act. One goal of the law was to help reduce childhood obesity and increase the health of children across the country by providing balanced meals. This law helps ensure that every American child has access to healthy foods and good nutrition through programs such as the National School Lunch Program.

Schools that participate in the National School Lunch Program receive money from the U.S. Department of Agriculture (USDA) for each meal they serve. In return, they must serve lunches that meet Federal requirements. All students can participate in the school lunch program, and students from low-income families qualify for free or reduced-priced lunches. The National School Lunch Program serves over 31 million students on a typical day, and about 60% of the participants nationwide qualify for free or reduced cost lunches.

The new standards began to go into effect in 2012. The law works to enhance school nutrition in a number of ways, including:

- Setting nutrition standards for all foods sold on the school campus throughout the school day, including foods from vending machines and school stores.
- Offering only lower-fat milk options.
- Requiring that water is available for free during meal service.
- Providing schools money for farm-to-school programs.

The law sets limits for the total number of calories available to students based on their ages (up to 850 calories for a high school student), and requires that more of these calories come from whole grains, fruits, and vegetables, and fewer calories come from fats and sugars. The use of salt is also limited.

#### Sources:

United States Department of Agriculture, Fact Sheet: Healthy, Hunger-Free Kids Act School Meals Implementation, Washington, D.C., viewed June 9, 2014 <a href="http://www.fns.usda.gov/pressrelease/2014/009814">http://www.fns.usda.gov/pressrelease/2014/009814</a>>

United States Department of Agriculture, *Fact Sheet: National School Lunch Program*, Washington, D.C., viewed June 9, 2014 <a href="http://www.fns.usda.gov/sites/default/files/NSLPFactSheet.pdf">http://www.fns.usda.gov/sites/default/files/NSLPFactSheet.pdf</a>

Food Research and Action Center, *Summary of School Nutrition Program Provisions in the Healthy, Hunger-Free Kids Act of 2010,* Washington, D.C., viewed June 9, 2014.

< http://frac.org/wp-content/uploads/2010/04/cnr\_school\_nutrition\_program\_provisions\_summary.pdf>

#### **Position Statement FOR Government Policies**

**Position Statement: FOR** 

Should the government play a role in implementing school policies that address obesity and nutrition?

YES, the government should play a role. It is the role of the government to promote safe policies and contribute to the health and well-being of the public. Successful, life-saving, public health campaigns of the past include the creation of laws for the use of seat belts and child car-seats, and the sale and marketing of tobacco products.

While the USDA has always established nutritional standards for School Lunch Nutrition Program, the guidelines in the past have not applied to foods sold outside of the cafeteria in snack bars, vending machines and school stores. This has allowed schools to sell candy, soda and other items that compete with the healthier choices offered by the cafeteria. It has also allowed cola companies such as Coca Cola and Pepsi to offer funding to cash-strapped schools in return for offering their products, so that almost 80% of public schools in the US now sell Coke and Pepsi products. The Healthy, Hunger-Free Kids Act applies the tighter nutrition standards to *all* foods sold on the school campuses, which leads to healthier snack and drink options.

The state of California limits the sale of junk food in the schools, and a study published in the *Archives of Pediatric Adolescent Medicine* in 2012 found that students in California take in significantly fewer total calories than kids in states with fewer restrictions on junk food sold in schools.

Childhood obesity rates have nearly tripled in the last 30 years, rising even faster than adult obesity rates. This puts considerable strain on individuals, families, communities and health care systems as people become more likely to develop type 2 diabetes, heart disease, and other obesity-related health conditions. The cost of treating these conditions is burdensome. The direct medical costs to treat and care for people with type 2 diabetes in 2007 was estimated to be \$116 billon, with the medical expenses for a person diagnosed with diabetes to be more than twice those than for a person without diabetes. It is the role of the government to provide leadership for such large-scale challenges. Working to *prevent* children from becoming obese by offering and encouraging healthy foods through the school lunch program is an appropriate and necessary role for the government.

Center for Disease Control. *Chronic Disease Prevention and Health Promotion: Diabetes*. Viewed June 10, 2014. <a href="http://www.cdc.gov/chronicdisease/resources/publications/aag/ddt.htm">http://www.cdc.gov/chronicdisease/resources/publications/aag/ddt.htm</a>

Trust for America's Health. *TFAH Issues: Obesity.* Washington, D.C. Viewed June 10, 2014. <a href="http://healthyamericans.org/obesity/">http://healthyamericans.org/obesity/>

Finkelstein, DM, Hill, EL, Whitaker, RC. School Food Environments and Policies in US Public Schools. Pediatrics Vol. 122 No. 1 July 1, 2008 pp. e251 -e259.

# **Position Statement: AGAINST**

Should the government play a role in implementing school policies that address obesity and nutrition?

NO, the government should NOT play a role. The government should respect the voluntary choices made by individuals when it comes to what they eat. Students generally understand the difference between healthy and unhealthy foods and make choices about food based on complex personal preferences. Government intervention in this process is unnecessary and oversteps the role of government.

The Healthy, Hunger-Free Kids Act limits a high school student's lunch to 850 calories, which is too low for growing students, especially those participating in sports. A high school boy, on average, needs between 2,200 and 3,200 calories a day, and a high school girl requires between 1,800 to 2,400 calories. A student involved in a strenuous sport may need 3,500 calories a day. When sports teams meet directly after school, students may have to rely on food provided in the schools. If high calorie food choices are removed from vending machines under the law, students will have even fewer options to keep them sustained until their next meal.

By increasing whole grains, fruits, and vegetables, and limiting fat, sugar, and salt, the new law does not provide students with food that they want to eat. This leads to increased waste, as students throw away food they must take but will not eat. Because students do not want to eat the new school lunches, about one million students dropped from the full-priced Nation School Lunch program in the 2012-2013 school year.

About 10% of the affected schools have found the program too expensive to implement. Even though the Federal government reimburses schools more money per lunch than in years past, schools are paying more for the type of food they are mandated to serve. Schools having trouble adopting the new standards should be able to opt out of the Healthy, Hunger-Free Kids Act and provide their students choices based on the needs and wants of their student population. The government should not intervene in this most basic aspect of our lives.

Wasson, Erik. *Michelle bites back on school lunches*. The Hill, Accessed June 10, 2014. <a href="http://thehill.com/policy/finance/207278-first-lady-comes-out-swinging-against-gop-lunch-plans">http://thehill.com/policy/finance/207278-first-lady-comes-out-swinging-against-gop-lunch-plans</a>

Duyff, Roberta. (2006). American Dietetic Association Complete Food and Nutrition Guide, 3<sup>rd</sup> ed. Access June 10, 2014. < http://www.eatright.org/kids/article.aspx?id=6442459420>

Bakst, Daren. *Government control of your diet: threats to "Freedom to Eat"* The Heritage Foundation, Washington, D.C. Accessed June 10, 2014. <a href="http://www.heritage.org/research/reports/2013/09/obamacare-menu-labeling-requirement-government-control-of-your-diet">http://www.heritage.org/research/reports/2013/09/obamacare-menu-labeling-requirement-government-control-of-your-diet</a>