



Outbreak Squad

Learning Impacts

Most people don't think a lot about the safety of their food. The U.S. has one of the world's safest food supplies, largely because the U.S. Department of Agriculture devotes significant resources to prevention, research, enforcement and education.

Outbreak Squad was the result of an effort to create a game about food safety to be played in social studies classrooms, designed to increase general knowledge about food safety science in grades K-8. While this topic and related behaviors (particularly around food prep,

handwashing, etc) are valid and important, they are

not named in national standards, making it difficult for teachers to introduce this important content to learners in school. The project sought to use food safety examples and behavioral outcomes to teach other content. The design team reviewed national social studies standards, and talked through the social studies issues which are often difficult to teach in a classroom. The result of those conversations led to a desire to add meaning to commonly taught civics content, such as branches of government and the government's role in preventing, preparing for and responding to issues which impact citizens. The team understood the importance of creating public policy, and the complexities of balancing quick reaction to immediate problems with investing in prevention and research efforts. The team chose to give players the opportunity to construct their own knowledge about the complexities of governing, by focusing specifically on food safety outbreaks. The game seems even more relevant today, as the world is asking how the novel coronavirus can be managed and could have been prevented. Outbreak Squad gives middle school learners the ability to experiment and construct their own understanding of government-based strategy. The game is designed to be played alone or in a collaborative group where players discuss and share gameplay recommendations.

Audience: Middle school learners in social studies classrooms.

Delivery method: Browsers on non-mobile devices

Learning Objectives and Outcomes:

Through playing the game, the learner will:

- Connect **different types of government action to the different roles within government**; specifically, education and outreach, enforcement, medical response and research. All government solutions **must be balanced with budget limits**.
- Experience **strategic problem solving** in employing multiple strategies: specifically that any strategy for a **health outbreak must include research, education, enforcement and health care**.
- Recognize that government policy and actions are created and carried out by people, and **explore the variety of careers** involved.

Regarding health outbreaks, the player will:

- See that sources of contamination can happen in different times/locations.
- Recognize that food safety outbreaks can vary in severity, impact, and audience, specifically that at-risk citizens are more likely to be critically impacted.
- Recognize the real-life impacts of food safety outbreaks, and the importance of preventing or mitigating them, and that the current U.S. food supply is safe because of solutions that have been in place.

Impact: User testing conducted throughout development of Outbreak Squad revealed the popularity of the game with players in middle school and high school. Average gameplay lasts 30 to 40 minutes, and the game is designed to guide players through most important takeaways within that period. During testing, players were asked to play for 30 minutes, but were given other options for play or activity after that period. **In the final two rounds of user testing, all users chose to continue playing, rather than leave the game for a different activity.**