

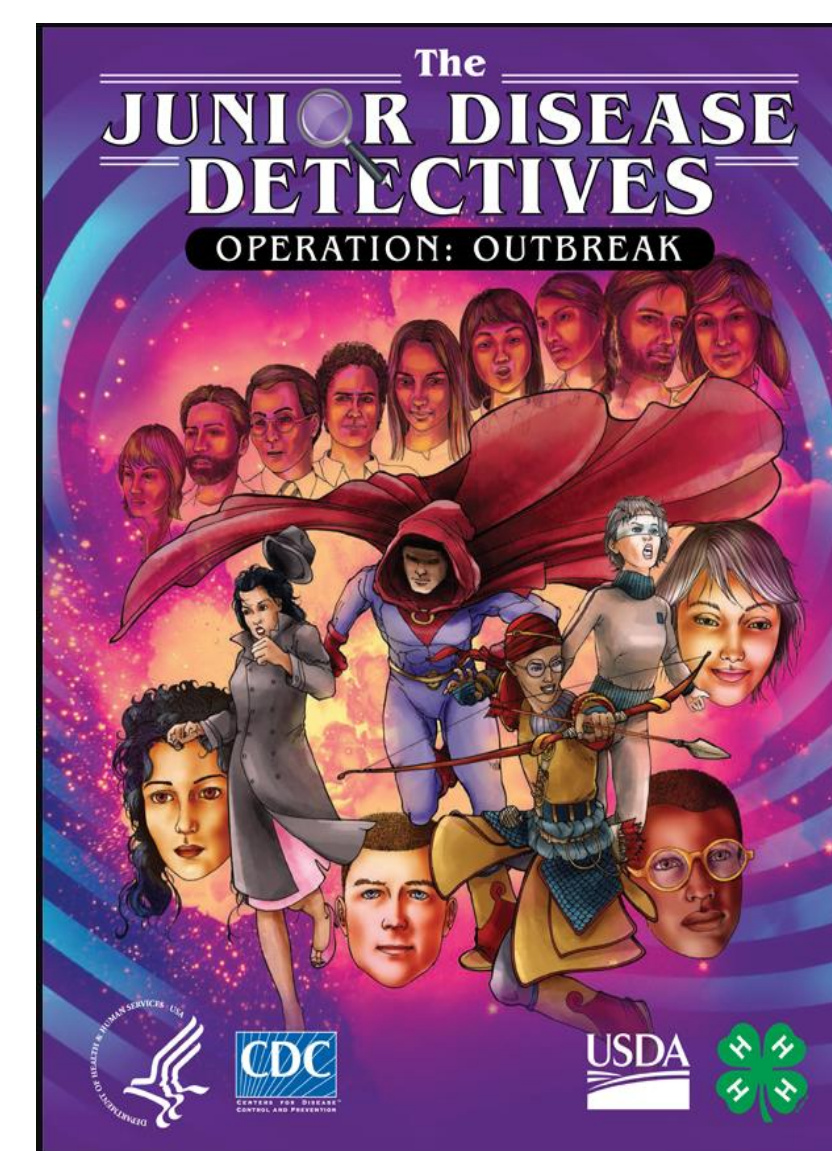
UC 4-H Spreads the Word about Preventing Infectious Diseases: Mailed Experiential Activities to Community Clubs

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Introduction

In early 2022, positive COVID-19 cases and hospitalizations continued to rise. State-wide, only 71.9% of eligible individuals had been vaccinated. The California Department of Public Health funded UC 4-H to support efforts towards increasing vaccination rates across the state, reducing cases and strain on the healthcare systems. As a trusted community partner in many rural areas of California, the UC 4-H Positive Youth Development Program played a critical role in developing and implementing vaccination education.



The UC 4-H Disease Detectives Epidemiology Education Program utilized the *4-H Disease Detectives: Operation Outbreak* graphic novel developed by CDC and National 4-H to educate UC 4-H members on the public health process, virus transmission, epidemiology, vaccinations, and public service and policies.

Audience: 4-H Community Clubs

The California 4-H Youth Development Program is administered by UCANR and uses an extender model to reach youth. Volunteers are recruited in towns and cities to lead clubs. These clubs gather youth ages 5-19 monthly to socialize and learn leadership and life skills. It is the central group in an area.

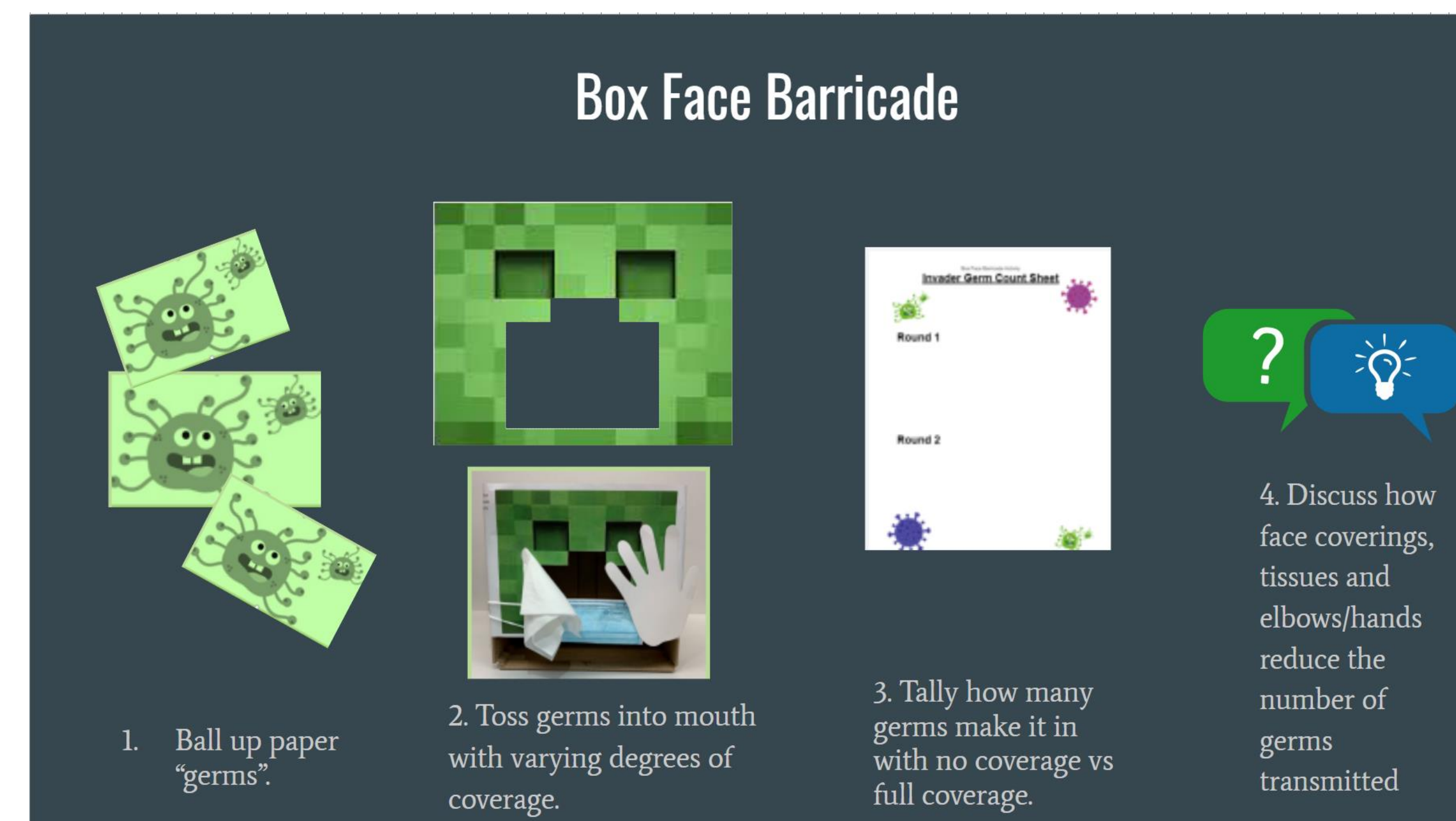
Youth choose to participate in specific projects all organized through the club or county. Clubs range in size from approximately 15 to 250 youth.

Every county 4-H Community Club program in California received educational materials to conduct five ice-breaker activities on vaccination awareness at their 4-H community club meetings.

Try It!

How many germs can you get into the covered mouth?

1. Grab a tissue.
2. Ball it up.
3. Try tossing it into the mouth.
4. How might it be different if the hand, mask or tissue was not there?



Students learn how covering a cough reduces germ transmission

Activities

In order to reach all the youth in the state, activities needed to be useable by the Community Club. Due to the size of membership in a club (anywhere from 15-250 youth), age of members (5-19) and the location of meetings (community centers, church halls, fire station rec halls, etc) activities needed to be very flexible in delivery. Additionally, all required supplies needed to be delivered to leaders to increase fidelity and implementation rates.

To accomplish this:

- Five different activities were developed at the state level and packed into over 400 boxes (in a garage!).
- Boxes containing the items and instructions were mailed to community club leaders. These leaders enrolled in a computerized system, so names and addresses were accessible. This allowed for the potential to reach every youth enrolled in the 4-H club program ($n=21,190$).

Five experiential and inquiry-based collaborative activities were developed. For example, to convey the benefits of face coverings, participants toss "germs" into a box fashioned to resemble a "mouth," which progressively got more difficult as barriers such as a mask and tissue were added (see photo). To illustrate the benefits of ventilation, participants were led through a series of questions asking them to make predictions about small particles circulating using air freshener. For example, "If I spray this air freshener at the front of the room, how far back do you think we will be able to smell it?" and "How would this be different if we opened the windows and turned on some fans? If we were outside how far do you think we could smell it?" These activities were conducted within exiting UC 4-H club meetings and provided an exciting and tangible way to demonstrate the complex concepts of epidemiology.

Boxes contained an assortment of the necessary items, such as a box of tissues (which they ball up and blow from different distances), a print out of a mine-craft like face (see photo), air freshener, printed photos of germs (to match up with close-up views to learn how mRNA works) and different commonly held items (to demonstrate how germs pass on touched items). Activity instruction sheets, an introductory letter, and a survey were also enclosed.

Objectives

Each activity reiterated the benefits of vaccination. Additionally, they also increased:

- Understanding of how mRNA vaccines work.
- Awareness of how germs spread on touched items.
- Motivation to use face coverings (masks, hands, tissues) to prevent the spread of disease in the air.
- Awareness of the benefits of physical distancing on reducing the transmission of infectious diseases.
- Awareness of ways to improve ventilation to reduce risk,
- The role of vaccination when infected.

Results

Twenty four clubs completed the post-activity evaluation surveys. The results from the post-activity evaluation showed that youth reported ways they could reduce their risk of getting sick:

- 88% of youth indicated that vaccines help
- 97% of youth agreed that germs get into their body through their mouth.
- 80% of youth reported that wearing masks help
- 91% reported that staying further away from people helps
- 96% of the youth reported that washing hands help
- 87% indicated that opening a window or door helps

Acknowledgements

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Try It!

How far away do you need to be to NOT make the tissue move when breathing?

1. Grab a tissue and ball it up.
2. Attach it to one of the strings hanging from the board.
3. Step back to the one foot mark (taped on floor) and blow!
4. Did the tissue move?
5. Step back and try again.
6. How many feet back do you need to be before your breath doesn't affect the ball?
7. Try it with a mask. Do you get a different result?
8. How many feet away should you be from other people when you are sick? How does wearing a mask impact others?