



**Chin Young, J., & Alexander, J. (April 2010). *Can my tree catch the flu?* Program showcase presented at CYFAR 2010 Conference, San Francisco, CA**



## ABSTRACT

“**Can My Tree Catch the Flu?**” is an interactive exhibit that helps increase youth awareness of the Sudden Oak Death (SOD) disease that has had devastating effects on the oak populations in California. To provide an analogy to how a tree catches this disease, participants will be reminded of a familiar situation, catching the flu. As a result of a progressive series of inquiry-based, experiential learning activities, participants will learn about diseased trees, as well as how their own behavior can impact the health of the forest environment. In the process, there is also the message that their personal habits can help them to stay healthy.

## DESCRIPTION

Many at-risk youths live in urban areas without yards or parks and may be disconnected from the natural environment. Growing greener communities benefits both youth and the environment. These activities can contribute to a youth’s understanding of both environmental and human health through inquiry-based, experiential learning methods that are learner-centered and actively engage the participants. In this way, the showcase provides an interactive way to connect at-risk youths with an environmental issue by making the issue personal and relevant.

The visual components of the exhibit include electronic and photographic displays of how disease-causing microorganisms are spread in humans and in trees, and a photo collage of H1N1 and SOD newspaper headlines to show the significance of these problems. These visual displays will be accompanied by demonstrations and activities led by showcase presenters.

The first activity demonstrates how sneezes spread viruses to humans and wind-blown rain spreads pathogens to trees with the use of a sprayed salt-water solution. This is followed by an interactive activity on how these microorganisms can be spread and takes place with a doorknob, a handshake, artificial bacteria/pathogens, and clear containers.

To emphasize the point of increasing populations of infectious microorganisms, bags of multiplying “germs” represented by colorful contrasting candies will be shown. Over the course of the showcase, clear bags of increasing numbers of candy germs will make a visual impact on how germ and pathogen populations can grow quickly and then spread. A chart with missing multiplication numbers provides participants with a guessing game on how quickly microorganisms can multiply. The level of math skill for this game can be adjusted for the target audience. To demonstrate hidden germs on seemingly clean hands, a Glo Germ Box or Glo Bar will allow participants to see their “dirty” hands after rubbing them with a glo dust or gel.

To experience how a diseased tree is affected, there is an activity using straws and clay to demonstrate clogged tunnels. Participants can also examine tree cookies with a magnifying glass. Next to the display is a pair of hiking boots with dry mud. A demonstration will be given on how to clean shoes to prevent transfer of disease microorganisms from an infected forest.

This showcase helps demonstrate how proper sanitation can help prevent or minimize disease for both people and forests.

## CHRONICLE

This exhibit had its introduction as an interactive session in a classroom setting on November 13, 2009 at the annual Marin County Peer Summit event for two groups of middle-school student leaders. Participant feedback indicated that there was a significant knowledge increase of Sudden Oak Death, and a significant behavioral change in increased hand washing to stay healthy. This session was adapted as an interactive exhibit at the annual Marin County Farm Day event held March 18, 2010 at the Marin Civic Center Exhibit Hall. Approximately 800 K-8 students and 400 adults attended this event. To reach 4-H members as well as public youth, a session showcasing this exhibit theme is planned for the Marin County 4-H Summer Day Camp program scheduled for July 19-21, 2010. In addition, the exhibit is currently being expanded to reach more youth audiences beyond Marin County. In April 2010, the exhibit was showcased at the Humboldt County 4-H SET Expo, and is available for consideration for the Sonoma as well as Marin County Fair.



Multiplying Microorganisms Display



"Glowing Germs" on Washed Hands



Demo of Spreading Microorganisms Traveling in Water



Examining Tree Cookies