As you learned in Task 1-6, the team will be focused on creating solutions to the problem question: How can we ensure health for all from mosquito-borne diseases?

There are many possible solutions to this question. This is why we must conduct research to learn more about the problem in our community. Then we can suggest decisions and actions we think people should take. At the end of your research, the team will need to create and communicate a community action plan. All of the team research will help you create the community action plan.

**Objective**

In this task, the team will learn more about the community action plan you will make in the future.

1. Go to the Task 1-7 folder to read the details of the community action plan.
2. There is only one version of the community action plan.
3. Read through the details of the action plan as a team. Ask questions about any parts that are not clear. Remember not to worry. Research is not easy. Sometimes things might not work out the way you planned. Learning how to work through the problem is part of the challenge and fun.
4. Read the Meet the Team Reading, with stories about when things did not work out during research projects and action plans. Think about how your team can work together when things do not work out as planned to reach your research and action plan goals.

Hooray! You completed Task 1-7. Check it off the task list. *Go to Task 1-8!*
Task 1-7 Understanding Community Action Plan

This document details the Community Action Plan that the team will create at the end of your research. The team will not be creating this plan now. However, understanding what you will be working toward completing at the end of your research is helpful even before you begin your research. Read through this plan, so the team understands everything they will need to complete by the end of your work. Then, as you are doing your research, think about how the information you are gathering could be useful for this final action plan and to address the problem question: How can we ensure health for all from mosquito-borne diseases?

The Community Action Plan will have three parts.

1. **Research area background, evidence collected, integrated management plan developed** (this part involves organizing what you will have already completed during your research)
2. **Action goals** (this part involves figuring out what you will do after you finish your research)
3. **Communication strategy** (this part involves telling people about your research, action goals, and plan)

**Research Area Background**

Provide a brief overview of your location and research site. This will help other people who are looking at your plan now and in the future. This section involves organizing what you did during your research. Include the following.

1. **Research location physical description**: Provide a brief description of your physical location. Include your position within your community, country, and the world.
2. **Team and local culture description**: Provide a brief description of your team and any local culture your team identified during your research. Include your team’s identity map from Task 1-5 as part of this description.
3. **Map of research site**: Provide a map of your research site and any important information you collected concerning the site that would be useful to understand your plan. If possible, include pictures of your research site.
4. **Evidence and claims**: Organize and share all of the evidence you collected during your research and any claims you developed.
5. **Local integrated management plan**: An integrated management plan outlines all of the different management strategies you think your community should consider to address the problem question: How can we ensure health for all from mosquitoes? Tasks 6-1 and 6-3 will help you outline an integrated management plan for your community.
Action Goals
It is one thing to have an integrated management plan and another to set local goals to help people act on that plan. For example, part of your plan could be to empty the standing water from all containers in an area. Another part of the plan could be to educate various people in your community about the problem. Setting local action goals will help you determine what actions need to be taken now and in the future, who is responsible for taking them, and how the actions will be monitored to determine their effectiveness over time.

1. Develop a list of action goals that could be carried out by various people in your community to work toward different parts of your integrated management plan. Consider the following when creating your action goals: What type of action is needed and what is the action meant to address? Provide a description of the action. Some examples include:
   - Education action goals: Create and hand out brochures to educate the community about mosquitoes. This action will increase local knowledge and spark actions of community members concerning mosquitoes and mosquito management.
   - Advocacy action goals: Create posters to advocate for a group of people at risk from mosquitoes. Write letters to local officials and community leaders concerning mosquitoes and their effect on different groups of people in your community.
   - Physical action goals: Monitor your research site weekly for standing water where mosquitoes could breed. This action will reduce the number of possible breeding sites mosquitoes can use in the community. Document and remove any standing water found in the site every week throughout year.
   - Be creative and develop your own goals for your community!

2. Who is responsible for the action: self, team member, team, specific community member(s), all community members

3. Action schedule or timeline: When and how often does the action need to take place?

4. Action monitoring: How will the action goals be documented or monitored over time to determine their effectiveness? How will your team determine whether the action is working effectively? Create a strategy to monitor these goals over time.

5. Put the actions in order: If you have a list of action goals, which ones would you recommend be done first, second, and third? Create an order for all of your actions so the team knows where to start.
Communication Strategy

If no one outside of your research team knows about your plan, can it make an impact? Next, you will need to develop a plan to creatively communicate parts of your action plan to your community. Make sure you include the social, ethical, economic, and environmental parts of the problem. How will you educate others about your evidence, claims, decisions, and action goals?

Be creative! This plan can include:

- Making posters or art projects to communicate parts of your plan
- Writing a song or a one-act play to communicate parts of your plan
- Writing and recording a public service announcement (audio or video) to communicate parts of your plan
- Creating a social media campaign to communicate parts of your plan
- Be creative; come up with your own ideas!

After you have developed your communication strategy, you will need to share and present this information with your community. This can include parents, educators, administrators, local community members, and other team members.

Each group should include the following when communicating with community members.

- Present social, ethical, environmental and economic considerations for the community.
- Support all claims with evidence (data and statistics, expert opinion, personal and secondhand experience) within the plan.
- Support all suggested actions using claims and evidence.
- Clearly explain, demonstrate, and illustrate parts of your integrated management plan.
- Clearly explain, demonstrate, and show all aspects of your action goals.
- Clearly outline how the plan will be monitored for effectiveness over time. Discuss how the plan can be adjusted if it is not working or needs to be improved.

Go back to Research Guide now
Meet the Team

Mosquito!: Task 1-7 Understanding Final Action Plan

Tell us about a time when a research project did not work out as planned?

David Pecor - Research Technician - Walter Reed Biosystematics Unit (WRBU)

Recently our team developed a big plan for a project to reduce malaria in three countries. We developed the project plan for over a year. We also spent many months working with new partners for three teams. After nearly a year of work, our project was rejected by the group providing the money. Although it is common for at least some projects to be rejected, we did not expect it. It was somewhat disappointing. However, that rejection taught me to except failure as part of any learning process. Instead of giving up, we went back to the drawing board with the failed project. We listed all of the issues we thought were behind the failure. Since that time, this project has seen new life as parts in several other new projects. We submitted these new projects and have been awarded funds to make them happen. This lesson taught me that rejection is not failure. It is only failure if you do not take the time to learn from it and work to improve. Think about how your team can work together when things do not work out as planned to reach your goals. It is important to be creative!

Meera Venkatesan - Malaria Technical Advisor - President’s Malaria Initiative - United States Agency for International Development (USAID)

When I went to school, I wanted to work on a research project about mosquitoes and malaria. I also wanted to get experience working in different parts of the world. I picked my project with that expectation. Unfortunately, by the time I chose my research project, there were not opportunities to work on malaria mosquitoes in Africa, as I had planned. I was very disappointed. Luckily, I found a lab that was working on West Nile virus mosquitoes in the United States. This was a time when the disease was spreading across the country. I got to learn a lot of the same science working on West Nile virus. I also spent some time in Zambia using these new skills. Eventually I was able to transfer my knowledge and experience to malaria in Asia and Africa. I learned some important lessons along the way: 1) Getting a good background in any field is more important than the specific topic you work on; and 2) The exact opportunity you want may not always present itself. But with a little hard work, you can use it to get closer to your goals. Think about how your team can work together when things do not work out as planned to reach your goals.

Rusty Low - Senior Earth Scientist - Institute for Global Environmental Strategies

When I was a student, I had a research project looking at remains in the ground of an ancient cave. I was doing research about ancient flower grains on the floor of the cave. I had 60 samples to process. My goal was to develop a story about the past environment of the cave. What was there 10,000 years ago? Was it a forest? Was it a meadow? It was very time consuming work. I worked all summer. At the end of the summer, 58 of the 60 samples did not have anything in them. I was very disappointed. I thought I was going to have to quit the project. But my advisor Charlie said, “Great! Now you have an interesting research problem! Why did only those two samples have preserved plant fossils and the other 58 didn’t?” He was right! Ever since, I think about this when I have a problem where things do not work out. I think about what my advisor Charlie said. It was a great life lesson when doing research projects. Think about how your team can work together when things do not work out as planned. Sometimes you just need to think about it from a different perspective!
Meet the Team

Mosquito!: Task 1-7 Understanding Final Action Plan

Tell us about a time when a research project did not work out as planned?

Kelly Bennett - Biologist - Smithsonian Tropical Research Institute (STRI)

Experiments fail in the area of science frequently. However, perseverance and a positive attitude is the key to success. You can learn just as much from a failure as a success. In science, failures can lead you to a new path you may not have seen before. This is why you must stay positive when your research fails and try again.

Lee Cohnstaedt - Research Entomologist - United States Department of Agriculture (USDA)

We learn from our success, but we learn more from our failures. I make mistakes daily. That is why it is called research. If it worked the first time, it would just be called search. My lab motto is, “If you are going to be stupid, you have to be tough.” Which means if we don’t plan something out or if we mess something up, or if things do not go as planned (which always happens), we learn, adapt, and continue with the modifications, and try again. This is true for all aspects of life, and we cannot let mistakes stop us from accomplishing our goals. Lastly, we learn much more from our mistakes than from our successes. So make mistakes, take calculated risks, learn, keep going, and never suffer the same failure twice.

Bridget Giles - Research Assistant Professor - Virginia Modeling Analysis & Simulation Center at Old Dominion University

Recently I applied to several grants to make improvements to the ZAP game. These improvements would make the tool more accessible to many people via Web, tablet, and app. Although I have not been successful, I have decided to keep trying to get funded to make improvements to ZAP. However, I am very fortunate to have met team members at the Smithsonian Science Education Center, who sees the value of this work, and through this partnership ZAP can reach learners throughout the world.
Team News Article Links for Task 1-7

David Pecor WRBU News Article

Kelly Bennett STRI News Article
https://newsdesk.si.edu/releases/smithsonian-scientists-track-aedes-mosquito-invasions

Lee Cohnstaedt USDA News Article 1

Rusty Low News Article -USAID

Zika ZAP Game News Article
The Zika Awareness and Prevention (ZAP) Game was developed to strengthen students and communities in their ability to stop Zika virus disease. Zika virus is a mosquito-borne virus, spread primarily by the bite of an infected *Aedes* species mosquito. Through simulation, this game educates students about Zika virus, common mosquito breeding sites, Zika virus disease symptoms, and pregnancy risks associated with Zika. Practices that help to prevent mosquito bites are also covered such as using an EPA registered insect repellent with DEET, the importance of wearing long sleeved shirts and long pants when outdoors, and treating clothing with permethrin. Multiple choice and matching games are provided to gauge how much you learned about Zika.

Use the following link to access the game, and have fun!

http://zika.vmasc.odu.edu/zap/

Computer WebGL Compatibility: Chrome 64 bit Version 57 and newer, Microsoft Edge version 16 or newer, Safari version 11 or newer, and Firefox version 52 or newer. Firefox users check your privacy settings.

For more information about the ZAP Game or for any other concerns please email us at Zapzika@odu.edu or contact:

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