

2ND ARIZONA STATEWIDE TRIBAL, IHS, AZDHS, CDC RMSF MEETING

MODEL ENVIRONMENTAL MONITORING TRIBAL PROGRAM

**Gila River Indian Community
Health Resource Department**

James Tree

Community Health Education Program
Community Education

Cheryl Shuy

Communicable Disease Nurse
Epidemiology/Disease Surveillance

Daniel Hoyt, REHS

Senior Sanitarian
Environmental Health

Adolph Robles

Senior Animal Control Officer
Animal Control



INTRODUCTION

Animal Control & Veterinarian Services

- Mr. Adolph Robles, Sr. Animal Control Officer
- Dr. Bahe, Veterinarian

Community Health Education Program

- Mr. James Tree, Program Manager

Environmental Health Services

- Mr. Daniel Hoyt, Sr. Sanitarian

Disease Surveillance Program

- Mrs. Cheryl Shuy, CD Nurse



GRIC HISTORICAL OVERVIEW

- No previous cases
- 2 human cases identified in 12/2009
- Significant stray dog population
- Significant Brown Dog Tick presence identified
- Abundance of excessive harborage



GRIC HISTORICAL OVERVIEW

**After notification of 2 human cases,
activated GRIC Departmental EOC
with ICS structure**

Developed Action Plan

- Established objectives
 - Monitor
 - Tick Surveillance
 - Dog Surveillance
 - Human Case / suspected case Surveillance
 - Evaluate
 - Tick Testing
 - Canine Serosurveys



GRIC HISTORICAL OVERVIEW

Conduct Control Actions

- Dog Dips
- Dog Collars
- Environmental
- Pesticide Application
- Harborage Removal

Report

- Community Leadership
- Community District Presentations
- State / Federal Agencies



GRIC HISTORICAL OVERVIEW

Outreach / Education

- Door to Door
- Presentations
 - Leadership
 - Community
 - Clinicians
- Newspaper
- Internet
- Brochures / Flyers

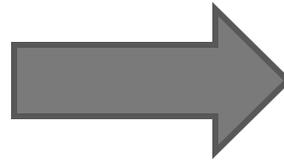


GRIC HISTORICAL OVERVIEW

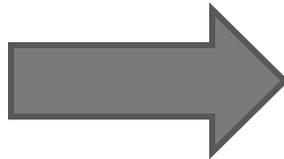
Outcome

- **No new confirmed RMSF human cases to date**
 - 2 suspected cases, preventative treatment given
 - Labs negative
- **~ 500 dogs treated for ticks***
- **200+ homes surveyed by dry ice tick traps***
- **150+ homes treated with Permethrin (aq)***
- **200+ homes provided with granular Permethrin (g)***
 - * During the course of initial incident response 12/2009 - 12/2010

GRIC HISTORICAL OVERVIEW



**640 Cu.
Yds
of refuse
removed**



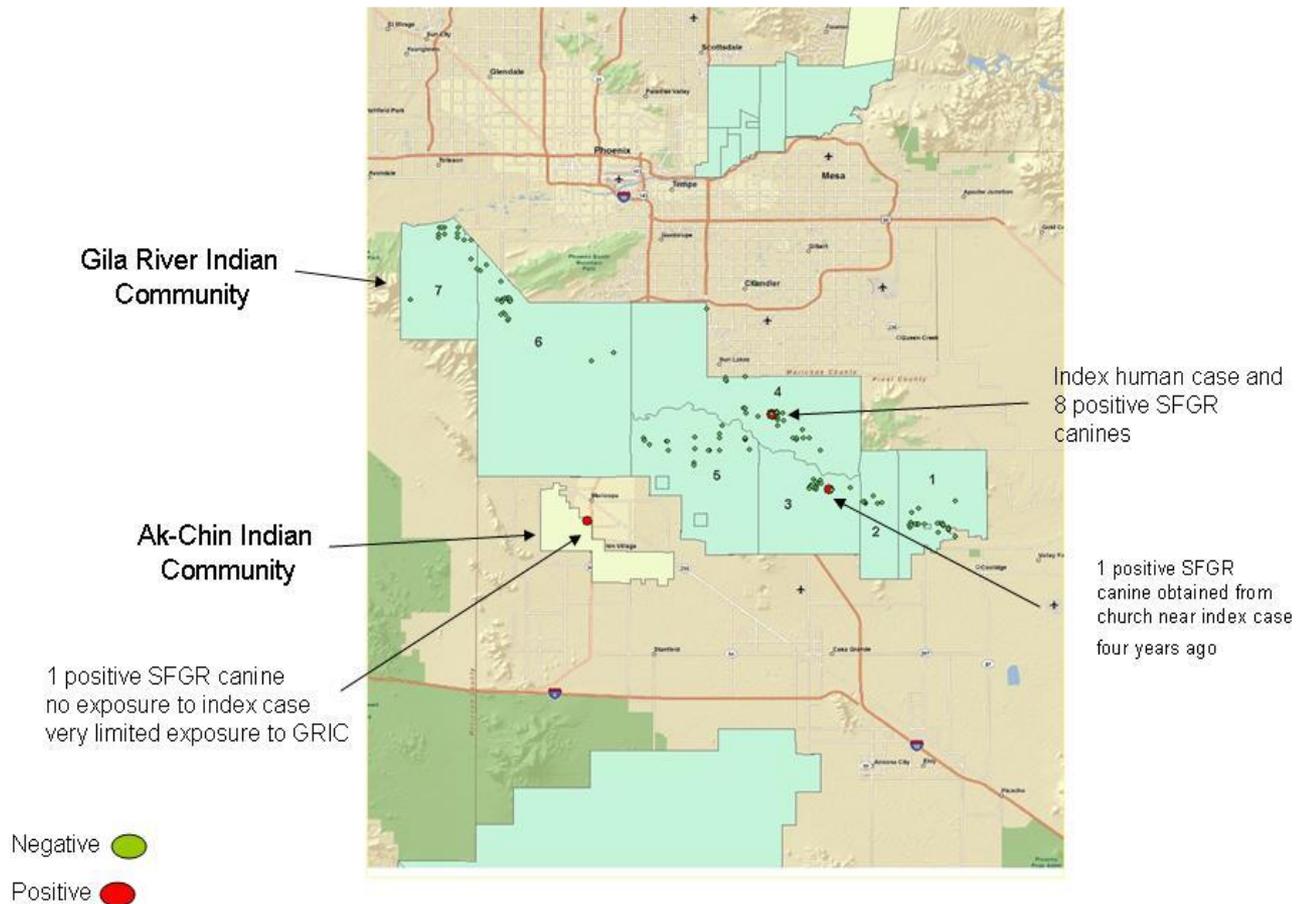
GRIC HISTORICAL OVERVIEW

Requested CDC Epi-Aid

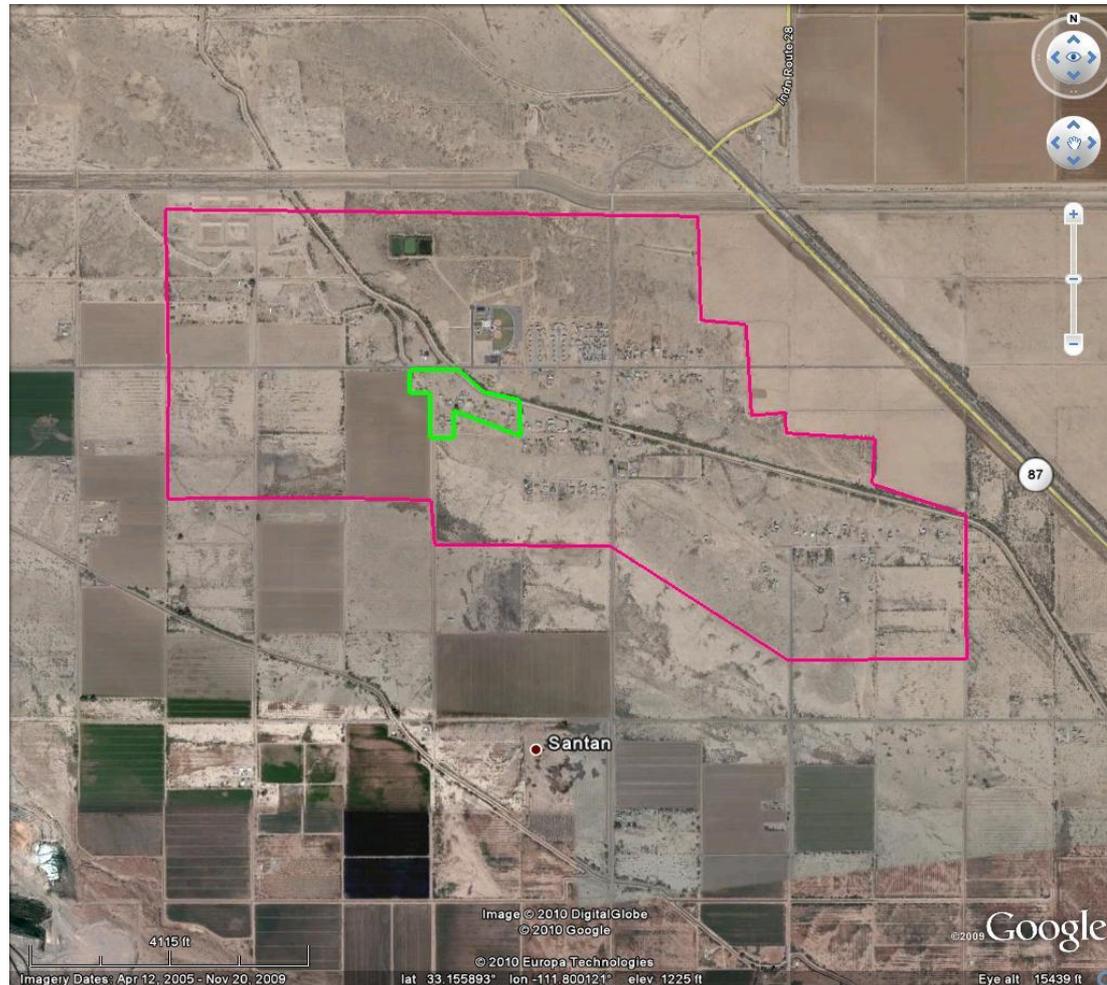
- Assisted with Canine Sero-surveys
- Assisted with pesticide dispersal
- Assisted with Outreach
- Assisted with surveillance
- Conducted blood and tick testing
- Reported on findings and provided further recommendations

EPIDEMIOLOGY / DISEASE SURVEILLANCE

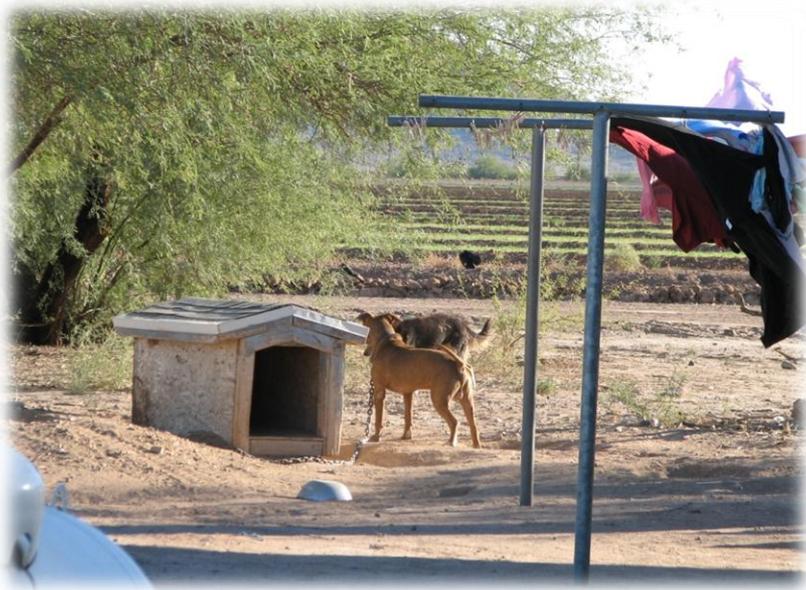
Gila River Indian Community Spotted Fever Group Rickettsiae
Canine Serosurvey Study



EPIDEMIOLOGY / DISEASE SURVEILLANCE



ANIMAL CONTROL



ANIMAL CONTROL

Continue surveillance of target area

- Increased ACO presence in the area
- One on one education of dog owners
- Impoundment of stray/unwanted dogs
- Increased enforcement effort
 - Citations for dogs roaming
- Amended GRIC Ordinance GR-02-10
 - Limited the number of dogs per household (4)



ANIMAL CONTROL

- Conduct Sero-survey in cooperation with CDC of dogs in areas immediately surrounding original target area 6 months after initial event
- Door to Door Vaccination/Blood drive movement
- Offer tick dipping and dog tick collars
- Advise homeowners of environmental control options



ANIMAL CONTROL: CONTINUED MONITORING

Two years after initial incident

- In cooperation with the CDC, conducted sero-survey blood draws during annual rabies vaccination clinic; 152 samples drawn
- Evaluate results to decide if control measures need to be modified Visit positive homes to evaluate, medicate and educate
- Developed and implemented plan for spay/neuter program
- Monthly random RMSF canine blood draws



ANIMAL CONTROL

Education

- Continue coordination of flyer and brochure distribution with Community Health Educators
- Provide outreach regarding Animal Control issues, ordinance, and services through department newsletter and newspaper (GRIN).
- Participate in Community activities & health fairs



ENVIRONMENTAL HEALTH



ENVIRONMENTAL HEALTH

Current RMSF efforts tasked to GRIC's Environmental Health Services office consist of:

- Outreach: Collaboration with the Department's Community Health Education office
 - Development of RMSF outreach materials
 - Community presentations

ENVIRONMENTAL HEALTH

Surveillance / Monitoring

- Responds to complaints and referrals
- Conducts routine tick trapping utilizing CO₂ baited traps during the months of April - October.
- Analyze data to direct control measures



ENVIRONMENTAL HEALTH

Conducts Brown Dog Tick control measures

- Exterior application of pesticide to the outdoor environment of the infested home.
 - Triggered by investigation or surveillance
 - Zero tolerance threshold. I.e.. Any presence of BDT triggers pesticide application.
- Provides referrals to other agencies



COMMUNITY EDUCATION

Community Health Educators engaged in continued outreach/education efforts.

- Established communication/coordination with HRD Divisions
 - Animal Control
 - Ticks Services
 - Disease Surveillance
 - Environmental Health Services
 - Vector Control
- Established presentations throughout community
 - Target populations: Youth, Adult & Elderly
- Bi- Annual Door to Door Campaigns
 - The staff provides health information and education by going house to house in each district.



COMMUNITY EDUCATION

Provide health informational booths

- Twice a month in each district.
- Various community events in each district.

1-on-1 education

- Staff make direct contact with community members while in the field and solicit feedback

Development & dissemination of educational materials

- Brochures / Flyers



COMMUNITY EDUCATION

Outreach Materials

Protect Your Dog

- The ticks that cause RMSF live on dogs and other animals.
- Treat your dogs with medicines, collars, or shampoos that kill ticks and are safe for pets.
- These medicines and collars will need to be reapplied. Some tick collars last longer than others; make sure you follow the directions on the package.
- Check your dogs for ticks every day in the summer. Remove ticks with tweezers.
- Keep your own dogs close to your yard and away from strays.



Owner putting a tick collar on a dog.



Protect Your Home

- Cut high grass and remove brush and other debris from around your home.
- Remove old furniture and old mattresses from your yard. These may stay wet and give the ticks a good place to hide.
- Put up fencing to prevent dogs and children from getting under homes and porches. Ticks like to live in these areas.
- Consider using pesticides in your yard and house to help control ticks. Check the label to see that the product is for ticks. Pesticides are available at garden centers and other stores. Follow directions on the label when using pesticides.
- Consider fencing your yard to keep your pets in and strays out.
- Report stray dogs to the GRIC Animal Control Program.

You Can Prevent Rocky Mountain Spotted Fever (RMSF)



KICK TICKS

For More Information:

- GRIC Health Resources Department:** (520) 562-5100
- GRIC Animal Control:** (520) 562-5177
- GRIC DEQ:** (520) 562-2234
- Gila River Health Care:** (520) 562-3321
- CDC:** http://www.cdc.gov/ticks/diseases/rocky_mountain_spotted_fever/

KNOW THE SIGNS

(FEVER, HEADACHE, SPOTS)

INSPECT YOUR BODY

COLLAR DOGS

KILL TICKS IN YARDS

What is RMSF?

- RMSF is a very severe, and often life-threatening, disease.
- Humans are infected with the disease by the bite of an infected tick.
- There have been at least 70 cases of RMSF and 8 deaths in eastern Arizona since 2003.

What is a tick?

- A tick is a kind of bug that bites humans and animals.
- The tick that carries RMSF likes to live on dogs.
- Ticks come in different sizes—younger ticks may be so small you cannot even see them easily.
- Ticks are found in areas of your yard or home where dogs are.

How do you get RMSF?

- Ticks give RMSF to people by biting them.
- You may not even know it when you have been bitten by a tick.



Engorged Ticks Full of blood

Prevent Tick Bites

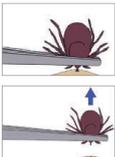
- Use insect repellents (DEET) to keep ticks from biting. Follow directions on the package or label.
- Wear light-colored clothes that make it easy to spot ticks.
- Tuck your pants into your socks when working in areas where ticks may be.

Check for Ticks Every Day

- Check yourself and your children for ticks every day. Bath time is a good time to check.
- Ticks like to hide in hair, around ears, under arms, between the legs and behind the knees.
- Safely remove ticks right away and wash the area of the bite.

Remove Ticks Safely

- Use gloves or wash your hands afterward.
- Use tweezers. Grab the tick as close to the skin as possible.
- Pull upward with steady pressure.
- Avoid squeezing or crushing the tick. Flush the tick down the toilet.



Know the Signs of RMSF

- See the doctor if *any* signs of RMSF occur in the 2 weeks after a tick bites you.
- Signs of RMSF include:
 - Fever, nausea, lack of appetite
 - Headache, aches and pains
 - Red spots, red bumps, or a rash, often appears a few days after the fever. This rash may appear on the hands and feet.

Some people never get a rash.

Child with Rocky Mountain spotted fever has the rash that is characteristic but typically does not appear until several days after fever onset.



Photo/CDC

Here is what the rash looks like:

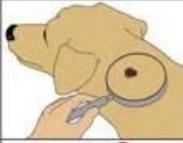
If you, or your child, has these signs, see a doctor right away—RMSF can be treated with medicine, but it must be given early. If not treated early, RMSF can kill!

COMMUNITY EDUCATION

Outreach Materials



Protect Your Family From Rocky Mountain Spotted Fever



Get Rid of Ticks on Dogs

Dogs carry ticks. Ticks can spread Rocky Mountain spotted fever. You can get ticks from your dog. A tick bite can make you sick. To help you and your family stay healthy, get rid of ticks on dogs.



Two of the ways to get rid of ticks on dogs are by using a tick collar or putting on tick medicine.

Place tick collars on **all** of the dogs that are in your yard. Get each dog a new collar every 3 months or as often as directed on the package.

OR



Put tick medicine onto the back of **all** of the dogs in your yard. Put another dose of medicine on each dog every month.

Protect Your Family From Rocky Mountain Spotted Fever!



Get Rid of Ticks on People

When you are outside or touching dogs you might get a tick. After you come inside check your body and your child's body for ticks and take them off.



Get Rid of Ticks in Your Yard

Ticks live in the things you leave outside such as old mattresses. Don't give ticks a home. Take trash and old mattresses from your yard to the landfill. Some yards may also need treatment with a chemical that kills ticks.

Contact a Doctor or Nurse

Rocky Mountain spotted fever is a disease that is spread by ticks. A person who has Rocky Mountain spotted fever would have a fever and sometimes a rash.

Call your doctor or public health nurse if you or your child:

- **Get a fever or rash**

AND

- **Have been outside or touching dogs**

For more information on Rocky Mountain spotted fever:
White Mountain Apache Health Education (928) 338-4953
White Mountain Apache CARE Program (928) 338-4922
Chino Health Center (928) 332-2660
Office of Environmental Health (928) 338-3652



COMMUNITY EDUCATION

Outreach Materials



Protect Your Family From Rocky Mountain Spotted Fever

Keep Ticks Off Children

Ticks can spread Rocky Mountain spotted fever. A tick bite can make you sick. To help you and your family stay healthy, keep ticks off children. Spray children with insect repellent before they go outside.



Check for Ticks on Children

Check these parts of your child's body for ticks:

- In and around the hair
- In and around the ears
- Under the arms
- Inside belly button
- Between the legs
- Back of the knees

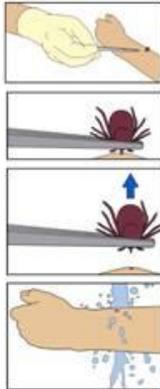


Protect Your Family From Rocky Mountain Spotted Fever!

Take Ticks Off Children

Follow these steps for safe tick removal:

1. Use tweezers and protect bare hands with tissue or gloves, if available.
2. Grab the tick close to the skin.
3. Gently pull straight up until all parts of the tick are removed. Flush the tick down the toilet.
4. Wash the bite with soap and water.



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- **Get a fever or rash**

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- **Have been outside or touching dogs**

For more information on Rocky Mountain spotted fever:
White Mountain Apache Health Education (028) 338-4953
White Mountain Apache CHR Program (028) 338-4622
Chinochee Health Center (028) 333-2960
Office of Environmental Health (028) 338-3652



OUTCOMES

- Veterinary program developed
 - Spay / Neuter services
- Heightened awareness among shareholders
- Increased financial and manpower resources
- Increased partnerships and collaboration
- Increase in staffing, service capacities and resources
- Approval of the Domestic Animal Ordinance GR-02-10

Q & A

THANK YOU

