RMSF on the Border

Where Children, Contagion and Climate Converge

Lisa Villarroel, MD MPH
Health and Wellness for all Arizonans
Rocky Mountain spotted fever is spread by ticks...
Rocky Mountain spotted fever is spread by ticks...

Demma, 2005
Rocky Mountain spotted fever is spread by ticks...

Demma, 2005

Alvarez-Hernandez, 2015
Rocky Mountain spotted fever is spread by ticks...
Rocky Mountain spotted fever is spread by ticks...
Rocky Mountain spotted fever is spread by ticks...
Rocky Mountain spotted fever is spread by ticks... 

...and can be fatal.
RMSF in the US is increasing...

Incidence of Rocky Mountain Spotted Fever in the United States since 1920.

Dumler, 2005
RMSF in the US is increasing, spread by two ticks...
RMSF in the US is increasing, spread by two ticks, affecting mid-USA...
RMSF in the US is increasing, spread by two ticks, affecting mid-USA, in summer...
RMSF in the US is increasing, spread by two ticks, affecting mid-USA, in summer, in adults...
RMSF in the US is increasing, spread by two ticks, affecting mid-USA, in summer, in adults + American Indians.

Holman, 2009
RMSF in Arizona...
RMSF in Arizona is different.
RMSF in Arizona is different.
RMSF in Arizona is *different*.  

Dumler, 2005
RMSF in Arizona is different.
RMSF in Arizona/Mexico is different.
RMSF in Arizona/Mexico is due to a complicated set of circumstances.
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RMSF in Arizona/Mexico is due to a complicated set of circumstances.
RMSF in Arizona/Mexico is due to a complicated set of circumstances.
RMSF in Arizona/Mexico will be challenging to resolve.
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RMSF in Arizona/Mexico will be challenging to resolve.
RMSF in Arizona/Mexico will be challenging to resolve.

Fumigarán Santorales casa por casa

La Crónica, 2009
RMSF in Arizona/Mexico will be challenging to resolve.
RMSF in Arizona/Mexico will be **challenging** to resolve.
RMSF in Arizona/Mexico will be challenging to resolve.
RMSF in Arizona/Mexico will be challenging to resolve.
RMSF in Arizona/Mexico will be challenging to resolve.
RMSF control in Arizona/Mexico will require a sustained effort.
RMSF control in Arizona/Mexico will require a **sustained effort**.
RMSF control in Arizona/Mexico will require a **sustained effort**.
RMSF control in Arizona/Mexico will require a **sustained effort.**

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**Confirmed and Probable Rocky Mountain spotted fever Cases in Arizona, 2003–2014**

- **Proable**
- **Confirmed**

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![Bar chart showing the number of confirmed and probable Rocky Mountain spotted fever cases in Arizona from 2003 to 2014.](chart.png)
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Sources

- Demma, L. et al. “Serologic Evidence for Exposure to Rickettsia rickettsia in Eastern Arizona and Recent Emergence of Rocky Mountain Spotted Fever in This Region.” Vector-Borne and Zoonotic Diseases. Volume 6, Number 4, 2006
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