

Response / Prevention to West Nile Virus

Presented By:

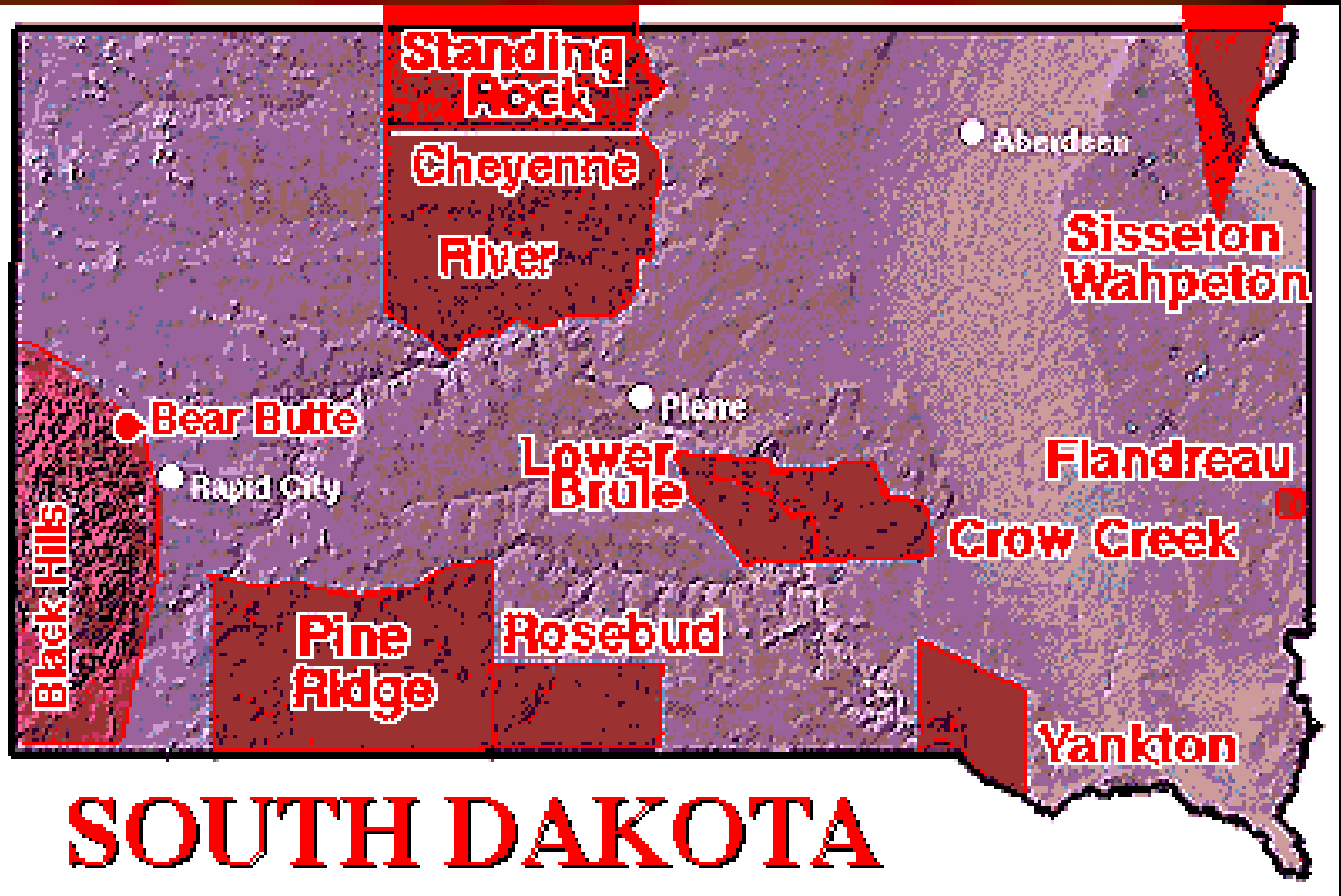
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Cheyenne River Sioux Tribe



Cheyenne River Sioux Tribe

South Dakota

Cheyenne River Sioux Tribe



Cheyenne River Sioux Tribe

- With an area of approximately 2.8 million acres, the reservation is roughly the size of Connecticut, with a total population of 15,000 members and non-members. CRST is bordered by the Cheyenne R. to the South, the Missouri R. to the East.

Tribal Headquarters-Eagle Butte, SD. Tribal Govt. consists of Tribal Chairman, Tribal Council with Reservation divided into districts. (6)



West Nile Virus Alert!

- 2001 NEHA Conference, Atlanta, GA
- Horse / equine magazine info.
- 2002 -JULY – 1ST REPORTED CASE IN SOUTH DAKOTA
- 37 Total WNV cases in SD for 2002
- No clinical Cases of WNV in Dewey or Ziebach Co.'s in 2002

2002: Response

- Environmental Health – Back pack spraying near Community Pow-Wow grounds Sundances (Routine).
- Education – Local media, newspapers, ie. Eagle Butte News, Lakota Journal, KLND Radio, CRST Community Health Representatives, Presentations provided to CRST Department / Programs, I.H.S. Infection Control/ County Extension in schools.
- Promotion of Repellents containing DEET

Raptor Fatality

- CRST Game, Fish, & Parks found sick golden eagle which succumbed to WNV
- Sacred in Lakota & other Native cultures



2003

- Education – Spring -same approach as 2002
- Monitoring – Return of WNV to SD
- July – Expansion of Mosquito Control in response to higher numbers of mosquitoes in communities.
- 1st local human WNV case in Dewey Co expedited “Coalition of Local Entities”

2003 Mosquito Coalition

- Tribal, ie. CR Housing Authority, Prairie Management Program, Environmental Health, Community Health Representatives (CHR's)
- City of Eagle Butte
- Indian Health Service
- Bureau of Indian Affairs Land Operations.
- (Counties)

2003: Logistical Problems

- Size of Reservation (comparable to Connecticut)
- Outlying community distances
- Lack of equipment & supplies
- Lack of general knowledge of mosquito control of local personnel / certified operators / applicators.

2003: Response

- Information gathering / attendance at SD Extension workshops
- Environmental Health assistance/IHS
- Networking with other Mosquito Control municipalities, ie Grand Forks, ND, SD St. Health Dept., CDC
- City of Eagle Butte purchased ULV fogger & pesticide

2003: Response Cont.

- C.R.S.T. purchased ULV fogger & pesticide
- Costs of supplies and equipment split among tribal entities.
- Certification of applicators achieved.
- Schedules created for communities.
- Adulticiding / larvaciding initiated weather permitting.
- CRST contains one of SD & Great Plains high "Wind zones"

Cheyenne River Valley (South)



Moreau River Valley (North)



Typical Rolling Prairie

Terrain: Estimated 8-9,000 stock
dams on C.R.S.T.: Pre-drought



Cherry Creek: SW Community



Strategies:

- During the first month of operation:
- Each community adulticided twice in addition to larvaciding (BTIs)
- Larvaciding in water holding areas in proximity to each community and housing area.
- "Problem areas" near lagoons & obvious areas were adulticided / larvacided more extensively.

Surveillance

- Visual (no trapping in 2002-2003)
- Dippers
- Public complaints



Site-Source Reduction: (Non-Wetlands)



Site-Source Reduction: Education, "Spruce Up SD" Program included SD Reservations



Site-Source Reduction: Education



Site-Source Reduction: Education of organizations



Larvaciding (BTI's)



Adulticiding

- In addition to regular adulticiding, Eagle Butte was one of 16 SD communities to receive CDC / SD Aerial Spraying.



Education: Problems Incurred

- Elderly reluctant to utilize repellents
- Elderly reluctant to attend outdoor social functions, ie pow-wows.
- 10-12 local pow-wows & 5-7 Sundances per year
- Other Reservations have same or more



Education: Problems Incurred

- "Use repellents"
- Some tribal members unable to purchase repellents
- Fixed income
- Liability?



Education: Problem Response

- Mosquito repellents made available at pow-wows & events.
- More education for elderly
- Enhanced media education, newspapers, radio during peak time of season Sept.
- Schools advised to make repellents available for after school activities.

2003 Totals

- South Dakota: 1041 Human WNV, 14 deaths
- Cheyenne River Sioux Reservation: 28 human WNV, 1 death
- Comparison: Pine Ridge Sioux Indian Reservation: 28 human WNV, 2 deaths
- Other reservations had similar numbers
- Early on Native Americans accounted for 20% of WNV cases in SD but by end of year, cases had decreased to NA population levels of 10 %.

Education Goals for 2004

- Promotion of elderly outdoor activities via Lakota language posters, brochures, radio announcements



Goals for 2004: Cont.

- Continuation of site reduction promotion
- Enhanced promotion of fathead minnows in smaller waters.
- More formalized "Mosquito Coalition"
- Concentration on larvaciding early
- Continued adulticiding
- Some mosquito trapping possible
- Education: Lakota language / more cultural materials disseminated

Goals for 2004: Cont.

- Continued WNV training / awareness of tribal members / non-members / networking.
- More school activities related to WNV prevention.
- Youth Center "The Main" may assist.
- More repellent availability
- Continue seeking funding sources, ie. SD grant possibility for coalitions.
- Possible EPI study SDSM & I.H.S.

The Final Word

- Adversities and threats to Public Health such as West Nile Virus often predicate diverse peoples to work together to seek solutions, increase dialogue and communication, and enhance cooperative ventures that ultimately and hopefully result in a safer environment to live in.
- Thanks CDC!
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