

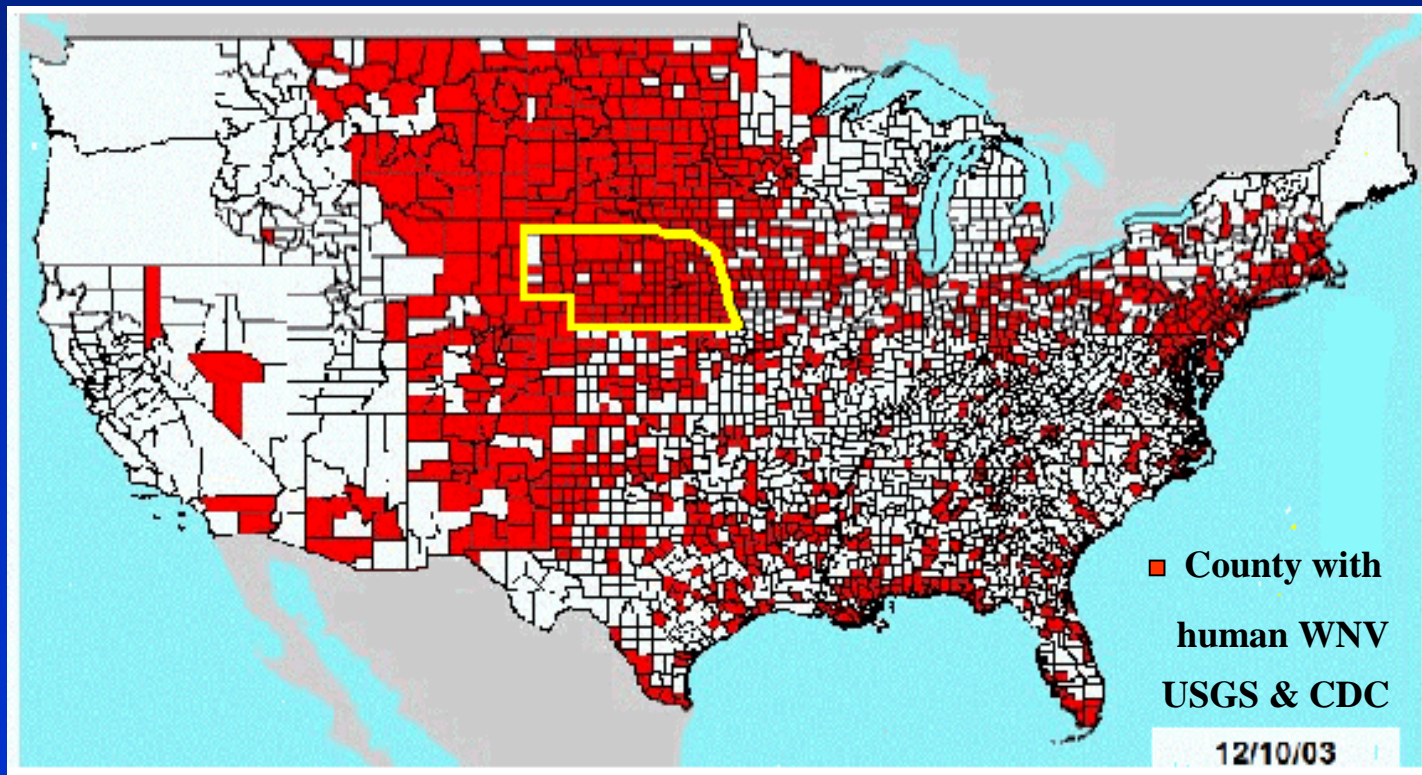
West Nile Virus in Nebraska, 2003

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WNV Detection Systems

- Dead birds
- Mosquitoes
- Equine surveillance
- Human clinical cases
- Blood donors

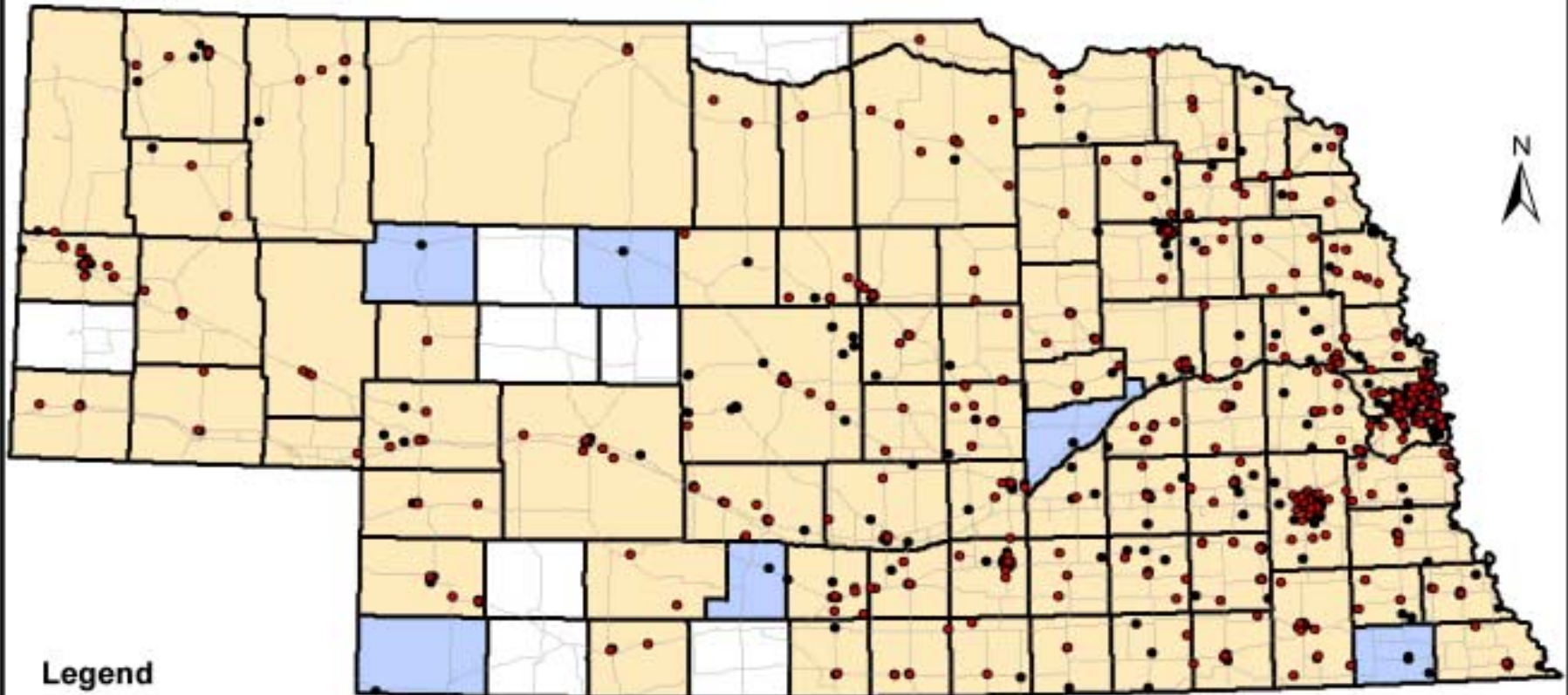
Nebraska WNV Activity 2002 -2003

	First positivity 2002	First positivity 2003
Dead bird	6/28	5/14
Mosquito pool	7/26	6/19
Horse case	8/6	7/9
Human case	8/4	6/12
Human death	8/4	7/31

Dead Bird Surveillance

	2002	2003
Birds tested	866	1021
Positive birds (%)	511 (59.0)	576 (56.4)
Species tested	55	64
Species positive	28	33
Counties tested	84	85
Positive counties	73	79

2003 West Nile Virus Dead Bird Submissions



Legend

- Location of Positive Birds
- Location of Negative Birds
- Counties with a Positive Bird Submission
- Counties with only Negative Bird Submissions
- Counties with No Bird Submissions

	Positive	Tested
Birds:	576	1021
Counties:	79	85

Mosquito Surveillance

	2002	2003
Pools tested	1,147	2,699
Pools positive (%)	242 (21.1)	936 (34.7)
<i>Cx. tarsalis</i>	222	855
Counties	9	20
Counties (+)	8	18
Earliest (+)	July 26	June 19
Latest (+)	Sept. 27	Sept. 29

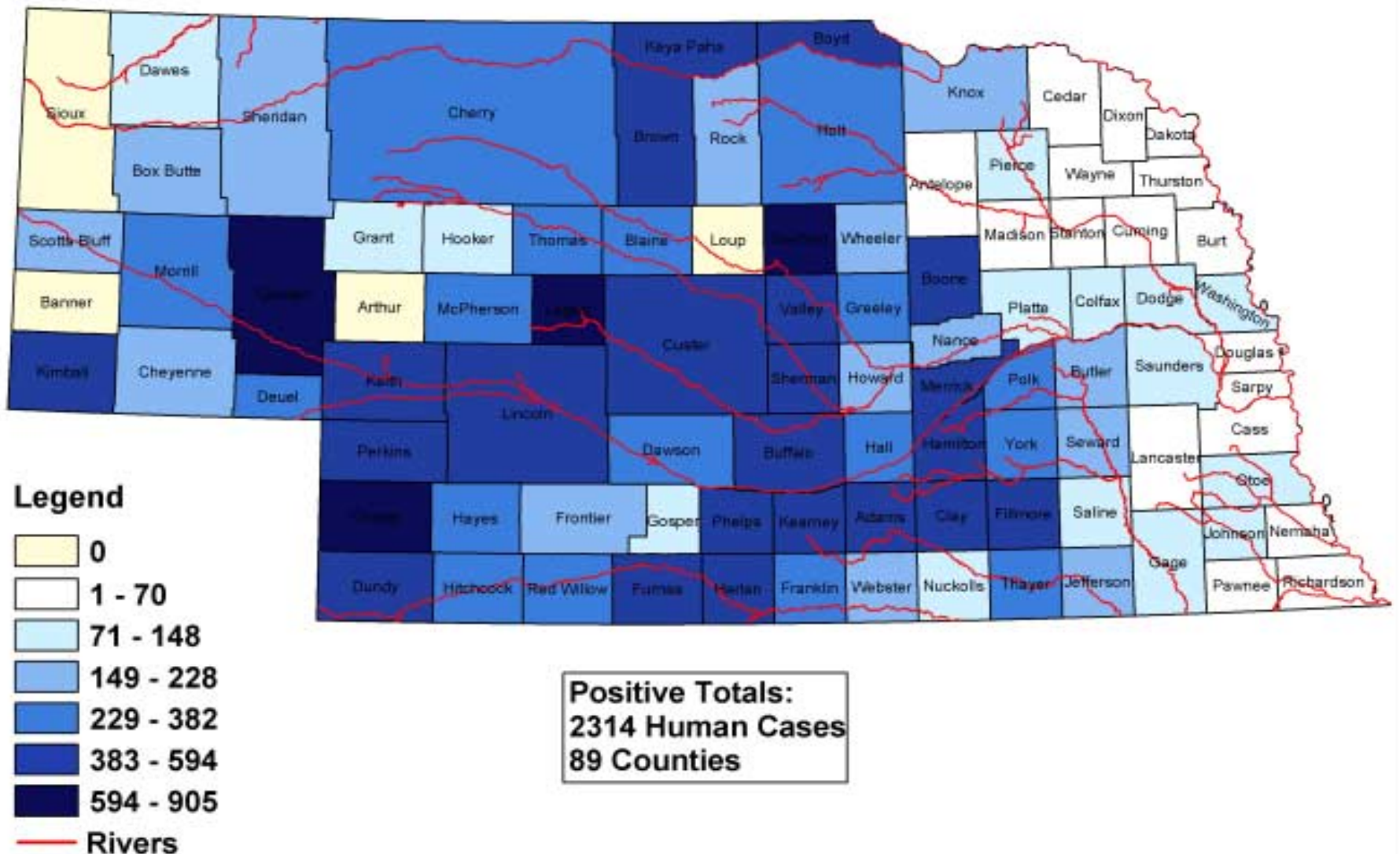
Veterinary Surveillance

	2002	2003
Equine cases	1,100	38
Positive counties	92	23
Earliest report	Aug. 6	July 9
Latest report	Dec. 16	Sept. 19

Human Clinical Surveillance

	2002	2003
NE cases	174	2314
Median age	46	44
National rank	9th	2nd
Positive counties	48	89
NE fatalities	8	28
Median Age	79	80

West Nile Virus Cases per 100,000 Population 2003

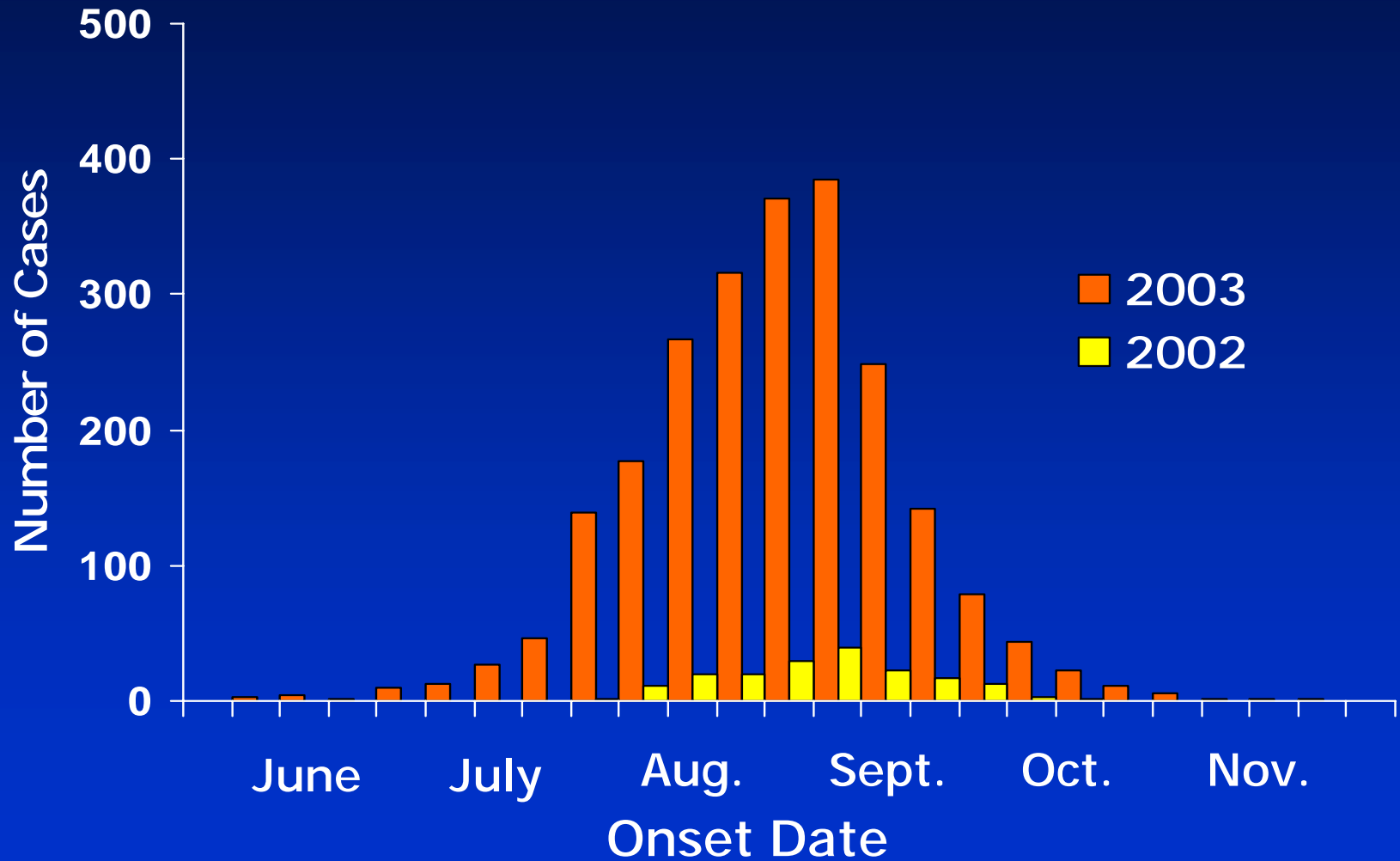


Nebraska Public Health Lab WNV Testing Results

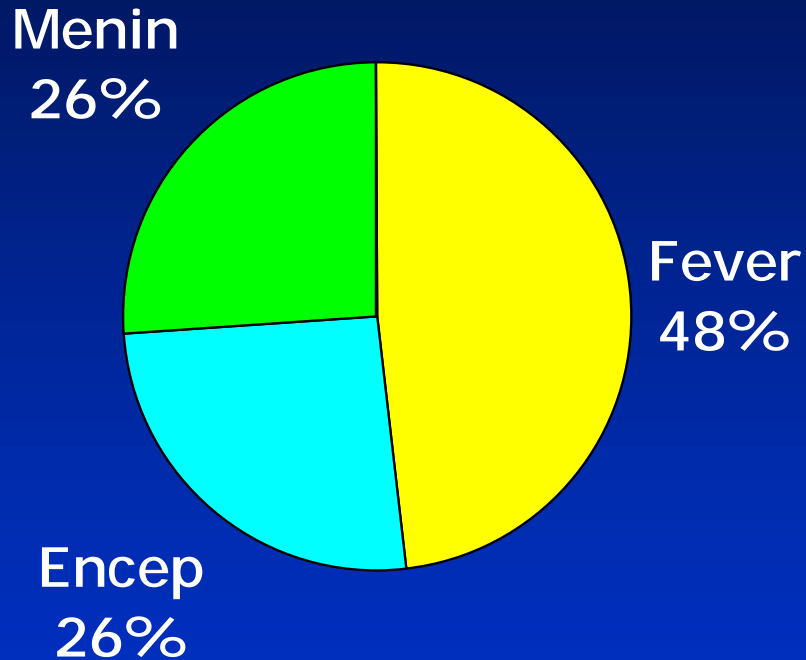
	Positive tests	Total tests	Percent positive
CSF	153	539	28.39%
Serum	2195	10639	20.63%
TOTAL	2348	11178	20.37%

IgM-capture ELISA, offered free to the public.

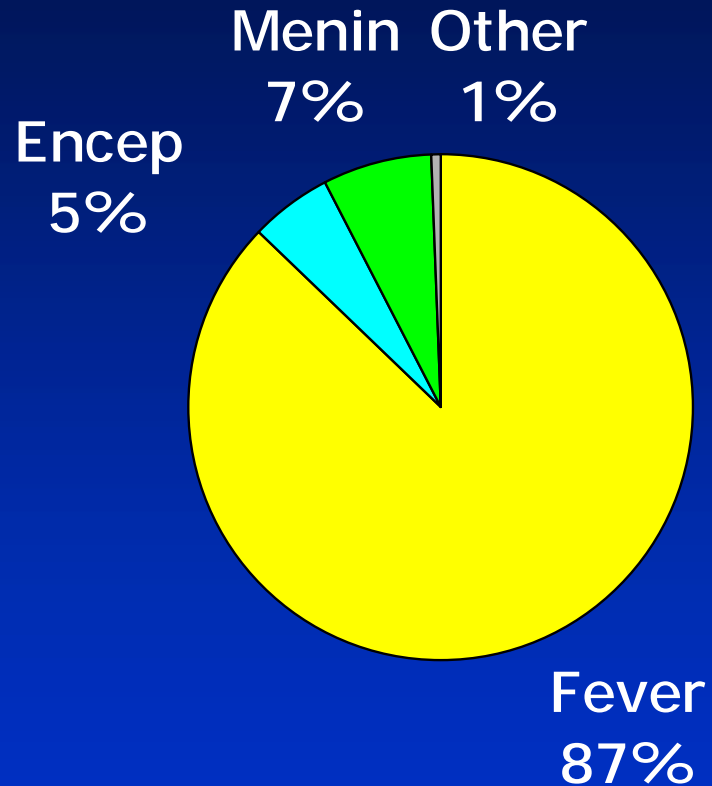
Human Surveillance



WNV Clinical Presentation

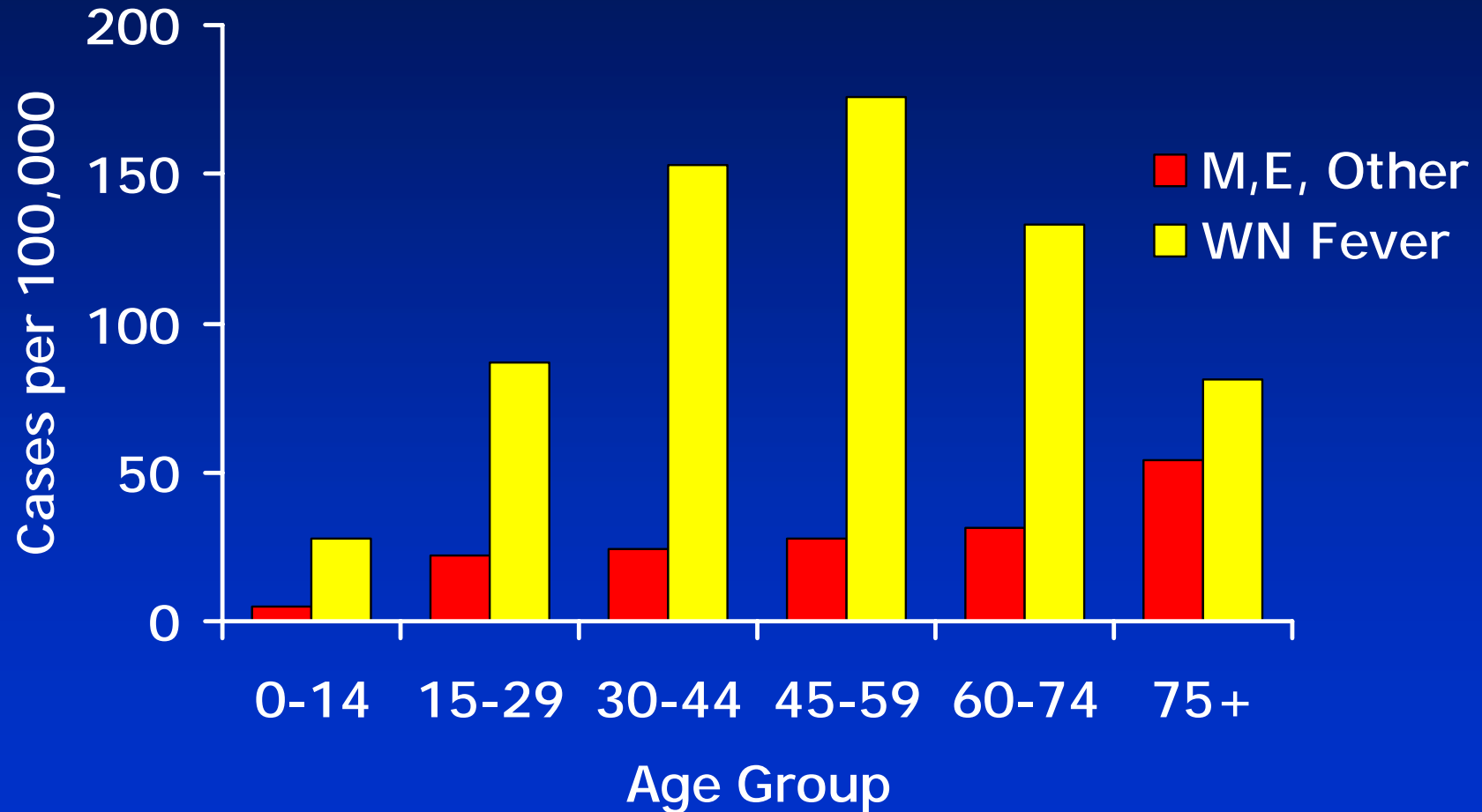


2002, n=169



2003, n=2182

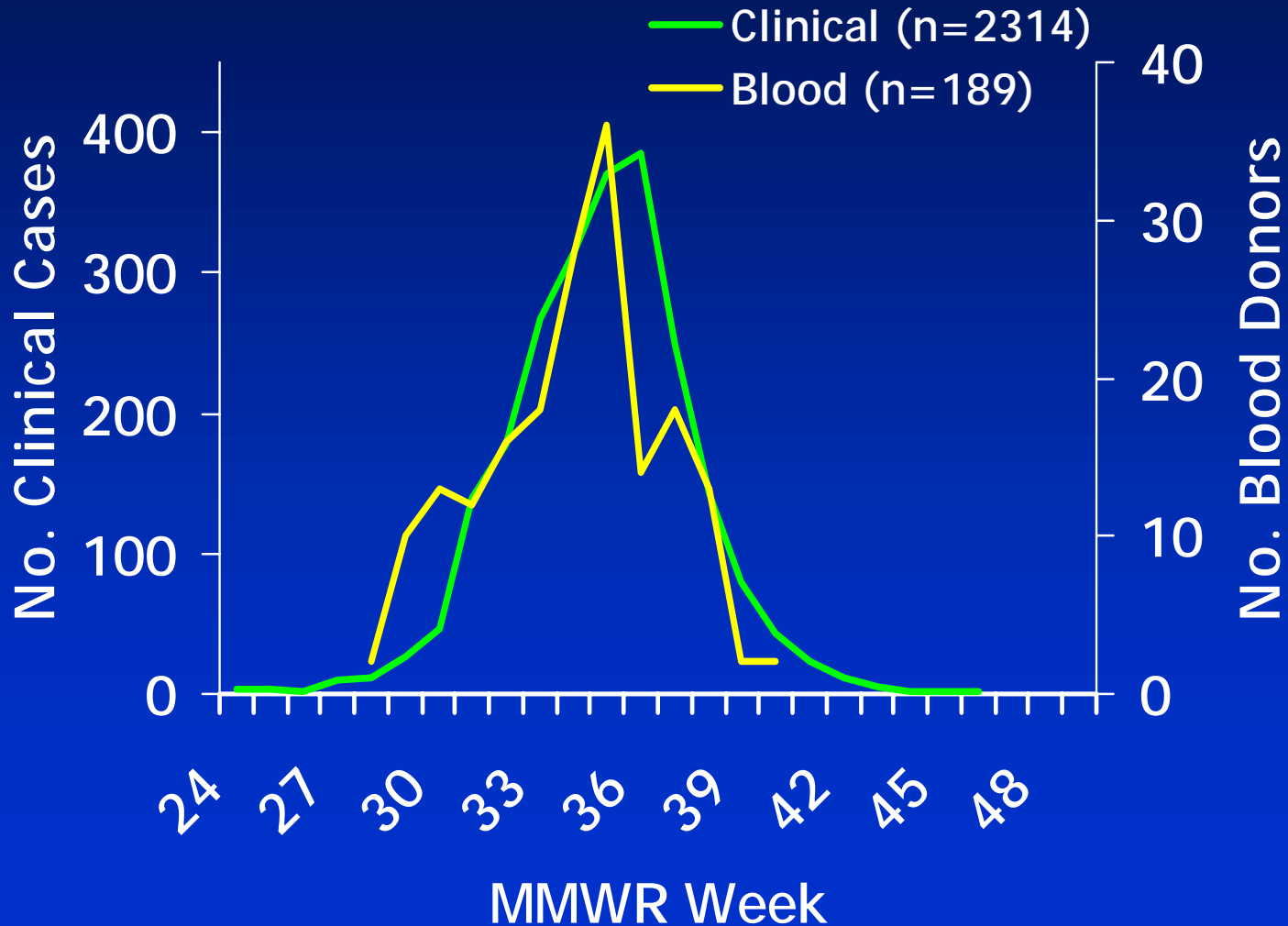
2003 Diagnosis by Age Group



Transfusion-related WNV

- 80 y.o. man with WNV IgM positive serum and CSF post surgery
- Received 20 units of NAT unreactive blood products, 6 units of untested product from Feb.
- Of 20, one donation retested NAT-positive and donor became IgM positive.
- Low viremia may have contributed to NAT test non-reactivity

Clinical vs. Blood Donor WNV



Future and Ongoing Projects

- Irrigated Agriculture
 - Mosquito production
 - Arbovirus activity
- Effect of WNV on Raptors
- Blood Donor Data Analysis

Acknowledgements

Human Surveillance

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Transfusion Investigation

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Nebraska Public Health Laboratory Staff

Nebraska Health Care Providers

Nebraska Blood Collection Agencies