

Sustainable Laboratory Capacity for WNV Surveillance

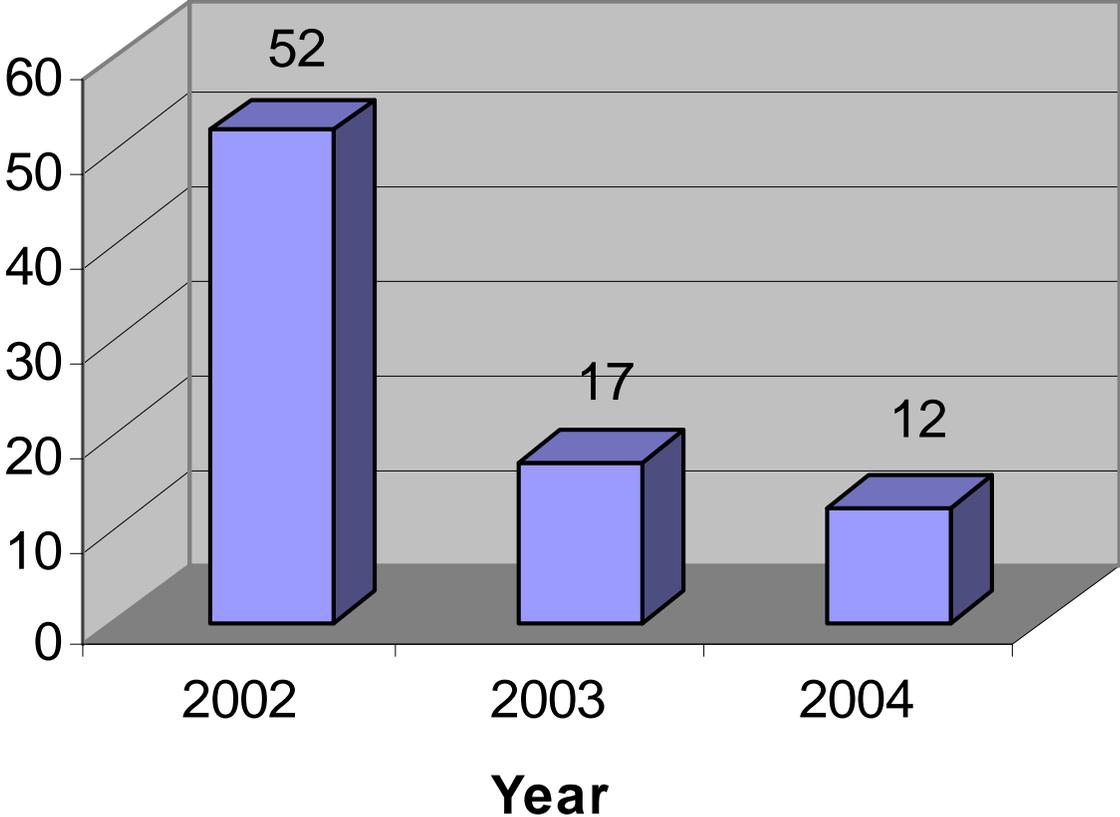
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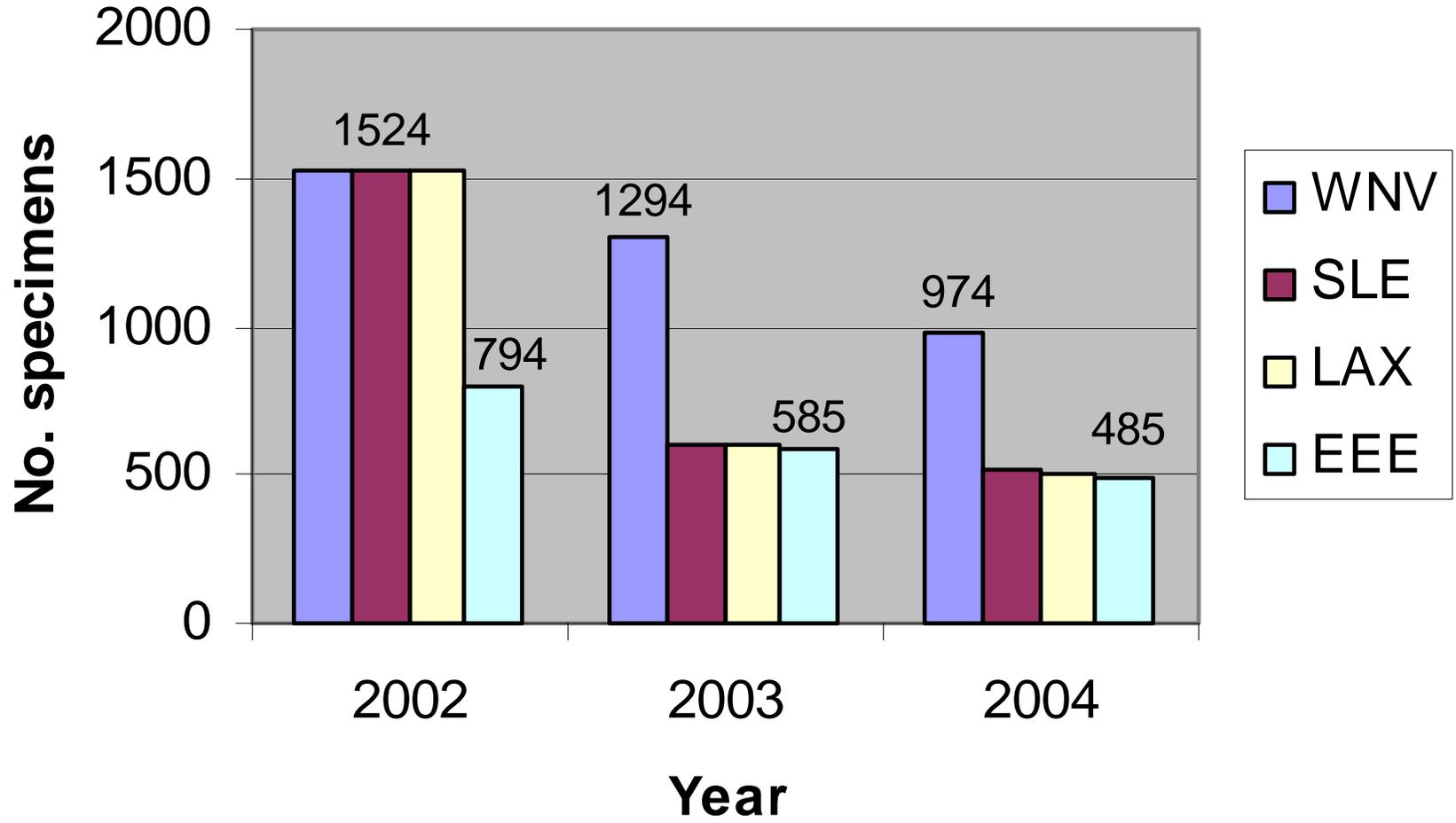
Fiscal Factors

- Decrease in state funding
- CDC funding decreases
 - ELC Grant
- Proposed FY 2006 federal budget
- Bioterrorism and emergency response funding
- Testing revenue

WNV Cases-Wisconsin



Arbovirus Serology Testing WSLH



Impact of Testing in the Private Sector

- Availability of FDA-cleared tests
 - Increased testing in private labs
 - Reduced testing in public health lab
- Efforts to obtain specimens and include private labs in surveillance programs
- Role of public health labs may shift to confirmatory testing

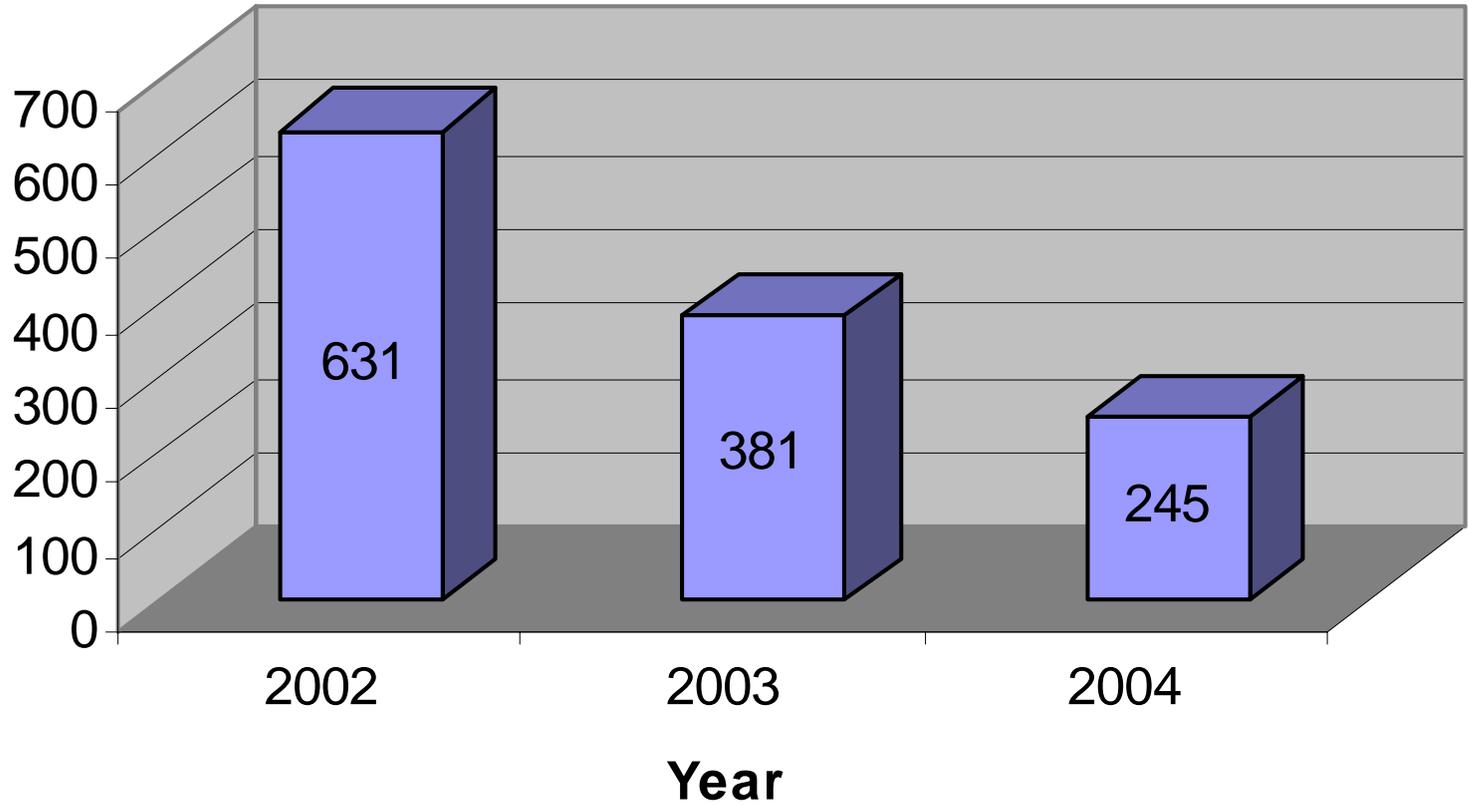
Selective testing in public health labs

- Only hospitalized patients with clinical signs of CNS disease
- Test only CSF specimens
- Test only paired sera
- Confirmatory testing

Technical Issues

- CDC IgM and IgG ELISA
 - Labor intensive
 - 2-3 day turnaround time
 - Lack specificity
- Plaque reduction neutralization
 - Labor intensive
 - 8 day turnaround time
- Need more rapid, automated, less labor intensive tests
 - i.e. multiplex microsphere immunoassays (Luminex)

Number of birds tested for WNV



Mosquito Testing

- Define mosquito vectors, distribution and population densities
- Support of mosquito abatement efforts
- Methods
 - Culture
 - PCR
- In Wisconsin, partnership with the Marshfield Medical Research Foundation
 - 2004-2004 pools positive for WNV of >6000 tested
 - Several unidentified viruses isolated

My Predictions (Wrong?)

- WNV will become a part of routine arbovirus surveillance programs and will be sustainable
- More testing will be performed in the private sector
- PHLs will prioritize their testing and will focus more on confirmatory testing
- New test methods will make arbovirus surveillance testing sustainable