

The Transformation of Health and
Health Care
The Role of the NHII

John Lumpkin, M.D., M.P.H.,

Senior Vice President,

Director of Health Care Group

Robert Wood Johnson Foundation

June 10, 2003

IOM Panel Reports

November 2002

- **“The American health care system is confronting a crisis.”**
- **“The health care delivery system is incapable of meeting the present, let alone the future, needs of the American public.”**

GEORGE
CLOONEY

MARK
WAHLBERG

In the Fall of 1991,
the *Andrea Gail* left Gloucester, Mass.,
and headed for the fishing grounds
of the North Atlantic.

Two weeks later, an event
took place that had never occurred
in recorded history.

A WOLFGANG PETERSEN FILM

THE
PERFECT STORM

WUNDER ERBS

A BALTIMORE SPRING CREEK PICTURES FILM A WOLFGANG PETERSEN FILM A WOLFGANG PETERSEN FILM GEORGE CLOONEY MARK WAHLBERG "THE PERFECT STORM" DAVID LANE WILLIAM FEINSTEIN
MARK ALLEN BOB CUNIN MARY ELIZABETH MASTANTONIO JOHN C. HULL JAMES HORSNER RICHARD FRANCIS BRUCE, A.C.E. WILLIAM SARGENT JOHN BAILE, A.C.S., A.S.C.
DARYL LEVISON DUNCAN HENDERSON SEBASTIAN JUNGER HILL WITLIEF BO GOLDING PAULA WENDEN WOLFGANG PETERSEN GAIL LUZ WOLFGANG PETERSEN

HITS JUNE 30TH

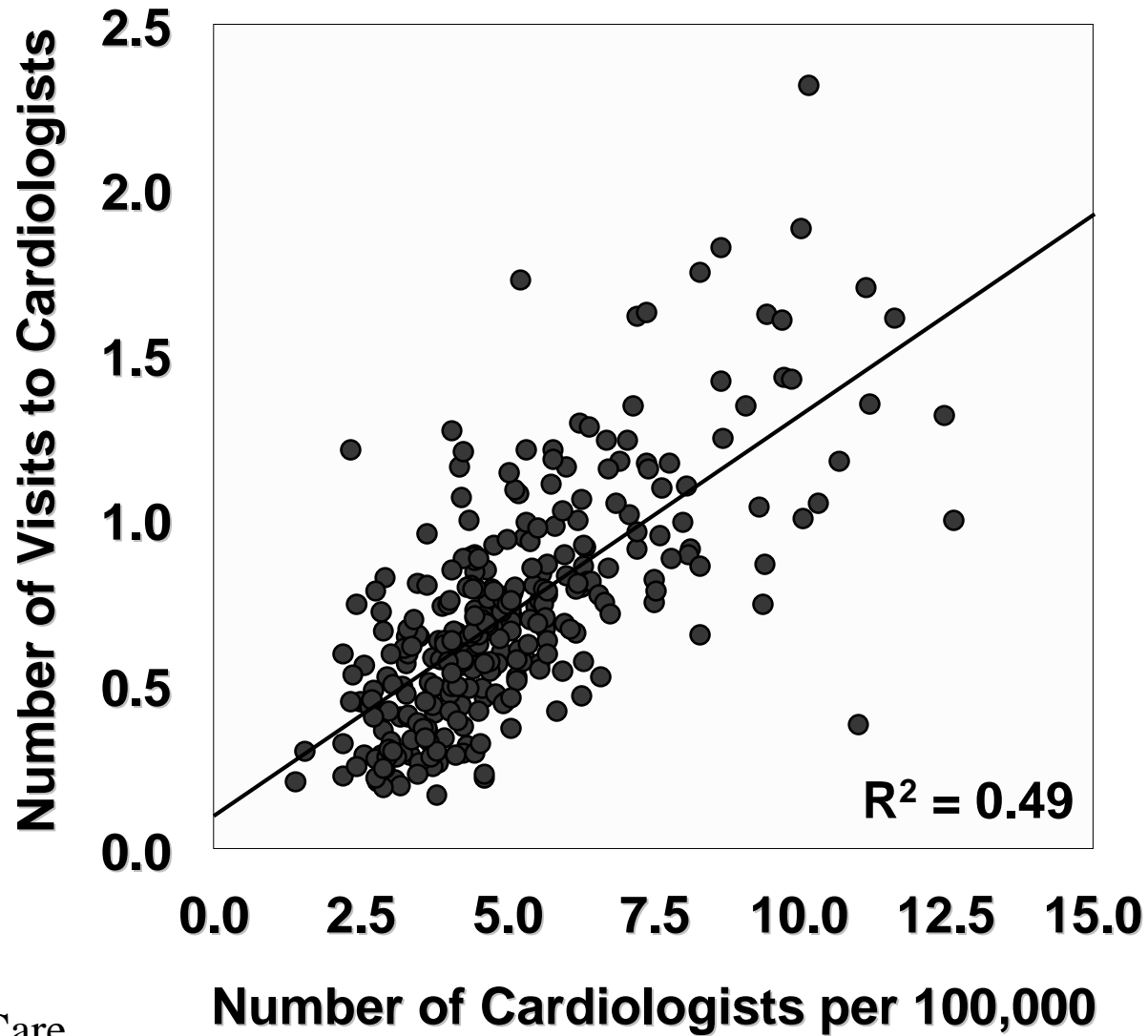
www.perfectstorm.net



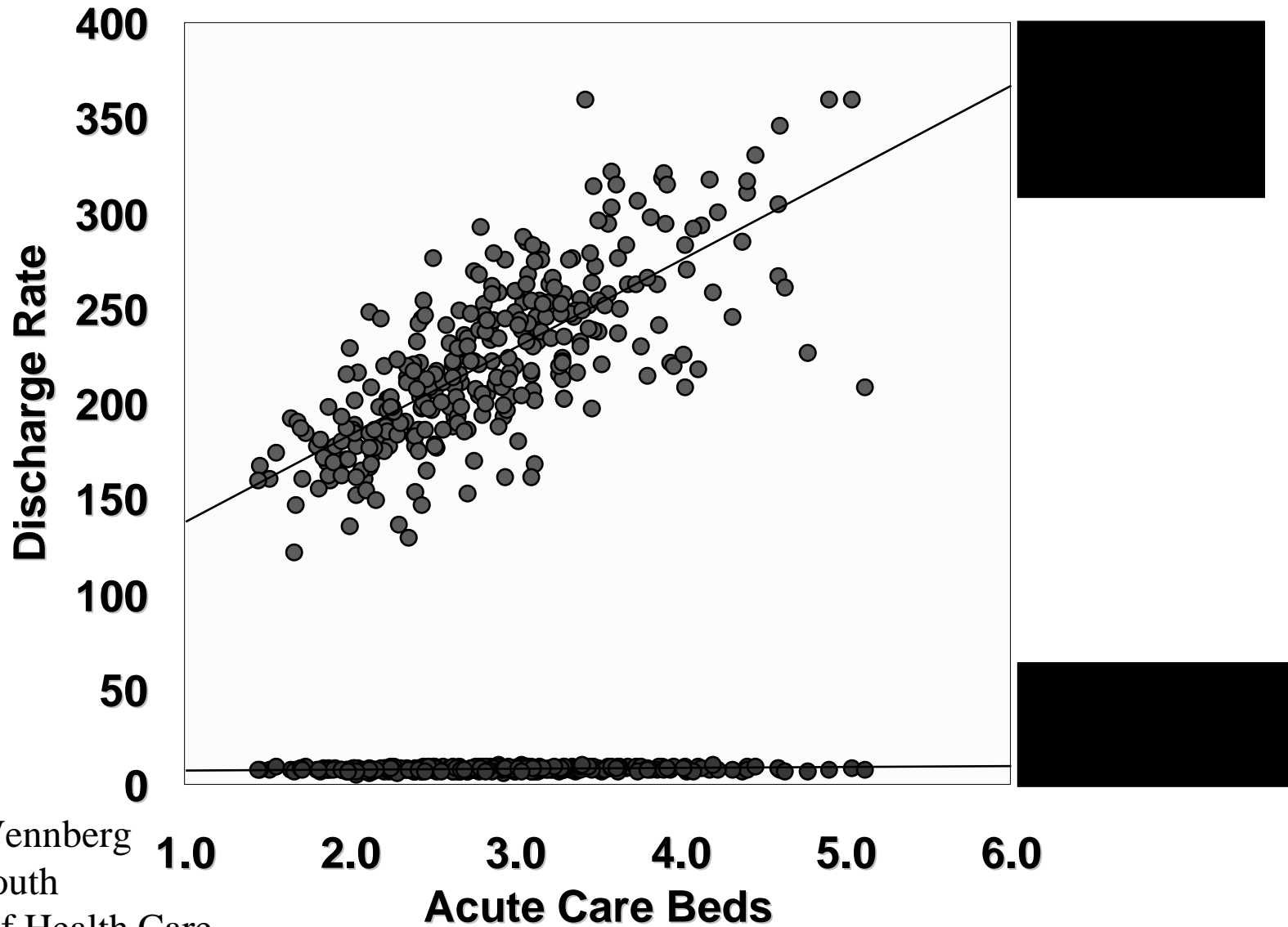
“Perfect Storm” Forming Around Health and Health Care

- **41 Million + Uninsured in America**
- **Health Care Costs Rapidly Rising**
- **Those Covered Paying More for Their Coverage and More Out-of-Pocket**
- **State Budget Crises Threatening Coverage**
- **Quality is not a given**
- **Public Health System is Stressed**
- **Seeking Health Information is a Major Internet Task**

Capacity Determines Need?

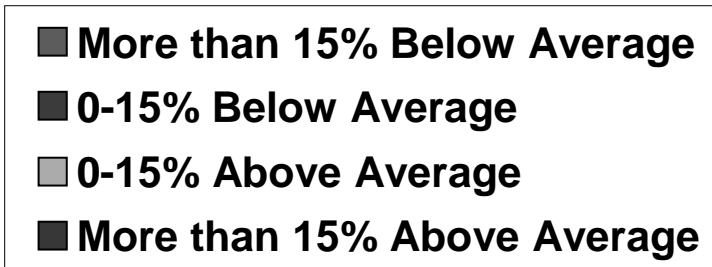
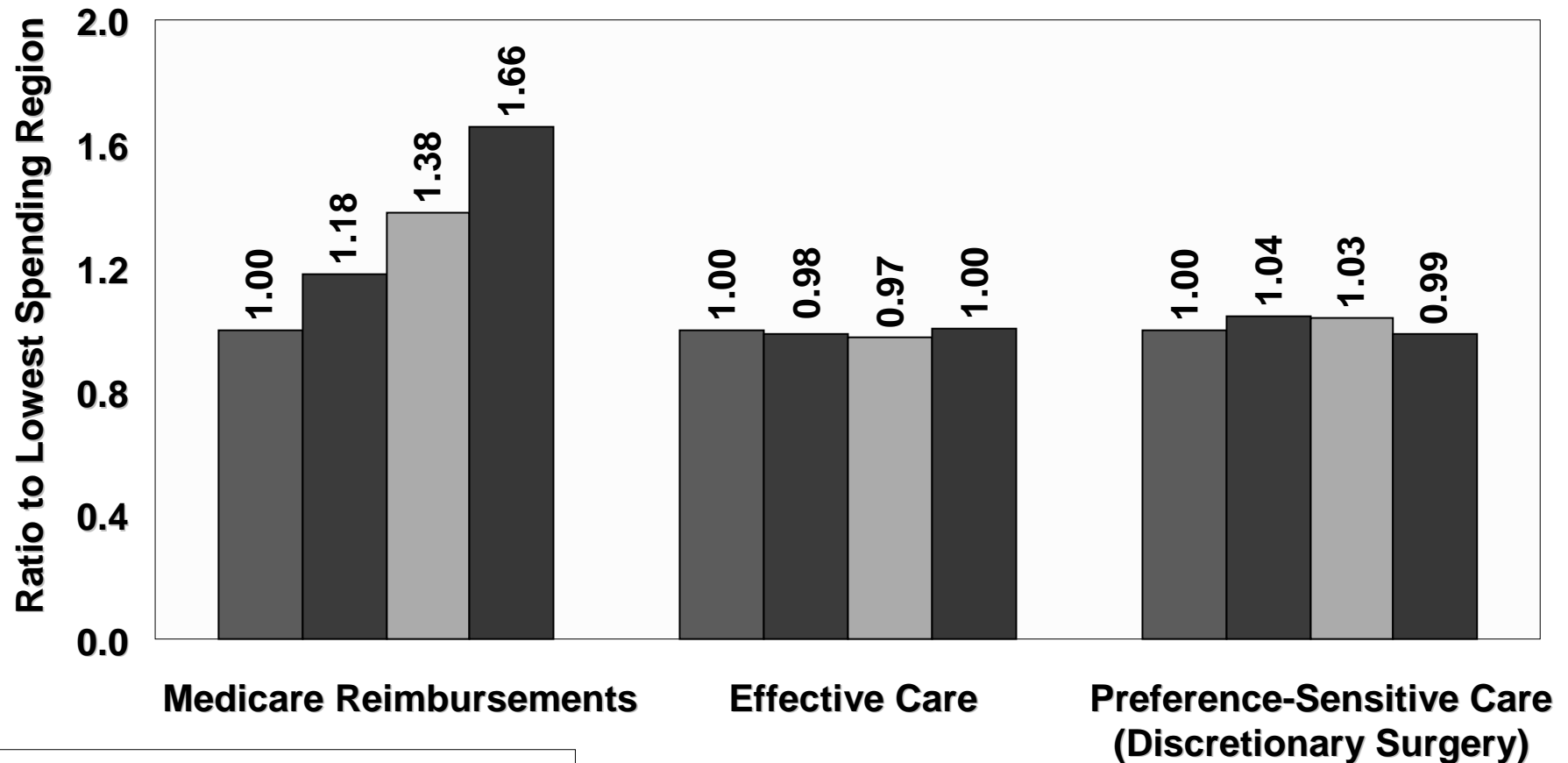


Capacity Determines Need?



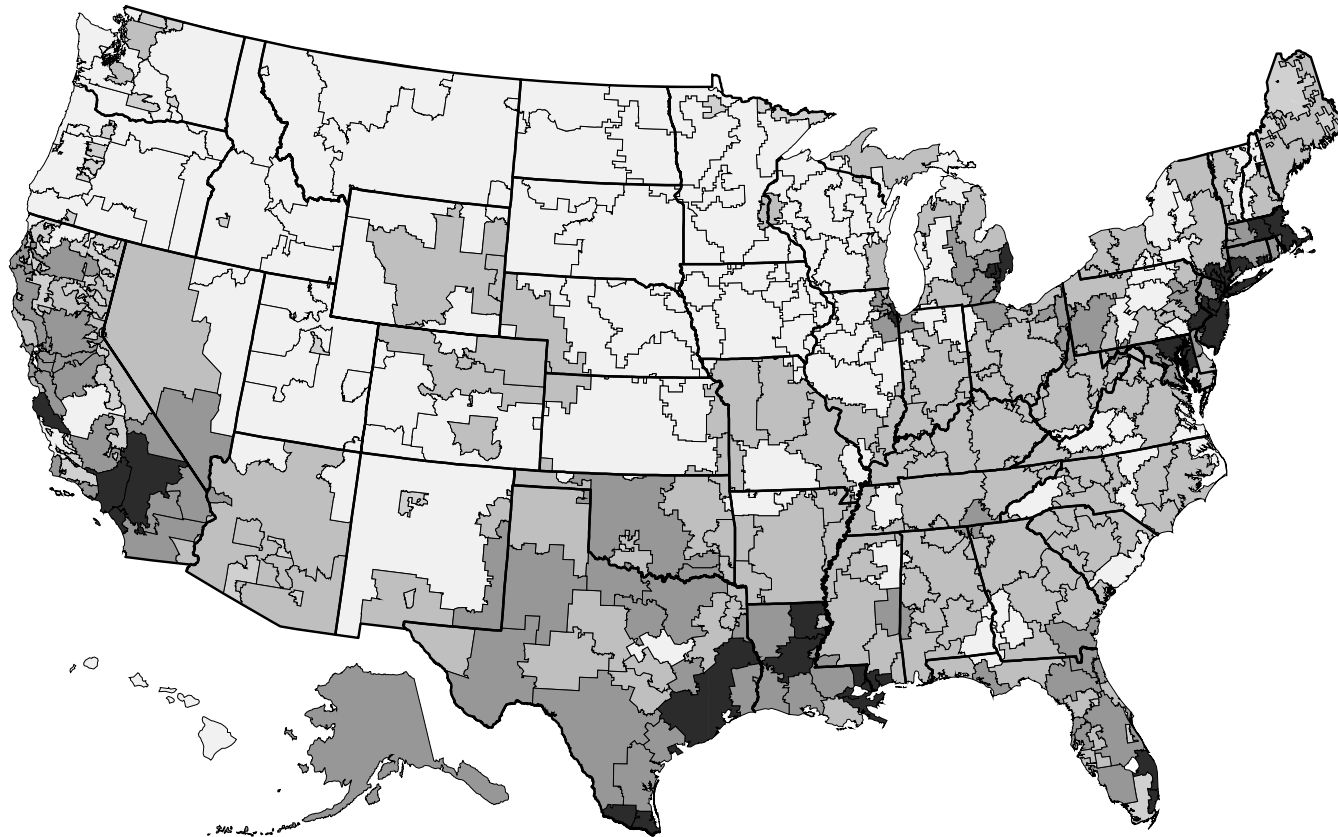
What does Greater Per Capita Spending BUY?

not more effective or preference sensitive care



Jack Wennberg
Dartmouth
Atlas of Health Care

Medicare Reimbursements (Part A and B) in Relation to the National Average (2000)



■	More than 15% Above Average	(36)
■	0 - 15% Above Average	(68)
■	0 - 15% Below Average	(112)
■	More than 15% Below Average	(90)
■	Not Populated	

Jack Wennberg
Dartmouth
Atlas of Health Care

Quality of Health Care in US??

- Overall Care 54.9%
- Preventive 54.9%
- Acute 53.4%
- Chronic 56.1%
- History 43.4%
- Counseling or Ed 18.3%
- Immunization 65.7%

The focus must shift from blaming individuals for past errors to a focus on preventing future errors by designing safety into the system

To Err is Human
- Institute of Medicine

Back Surgery per 1,000 Medicare Enrollees on a Race-Specific Basis (1999-2000)

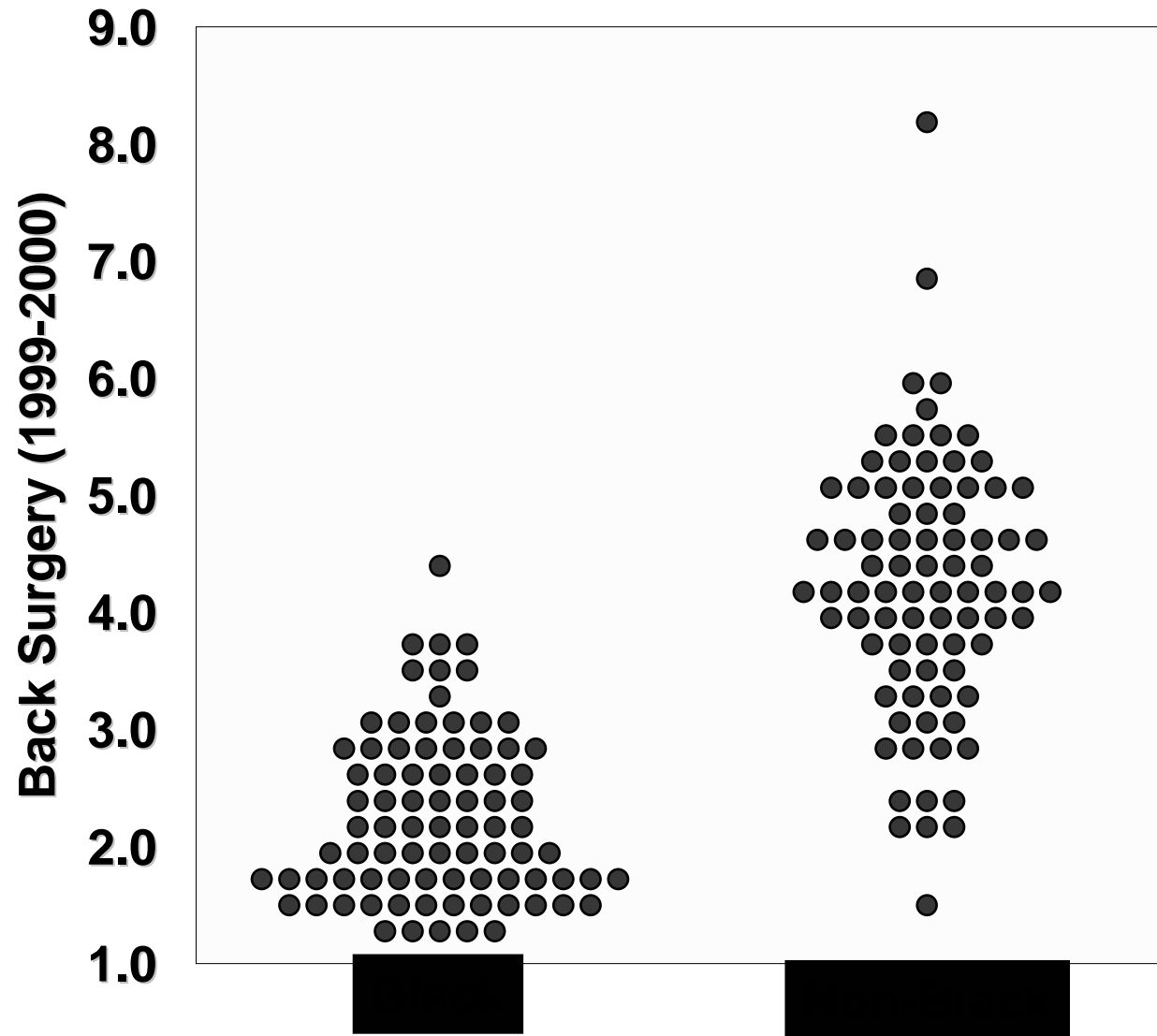
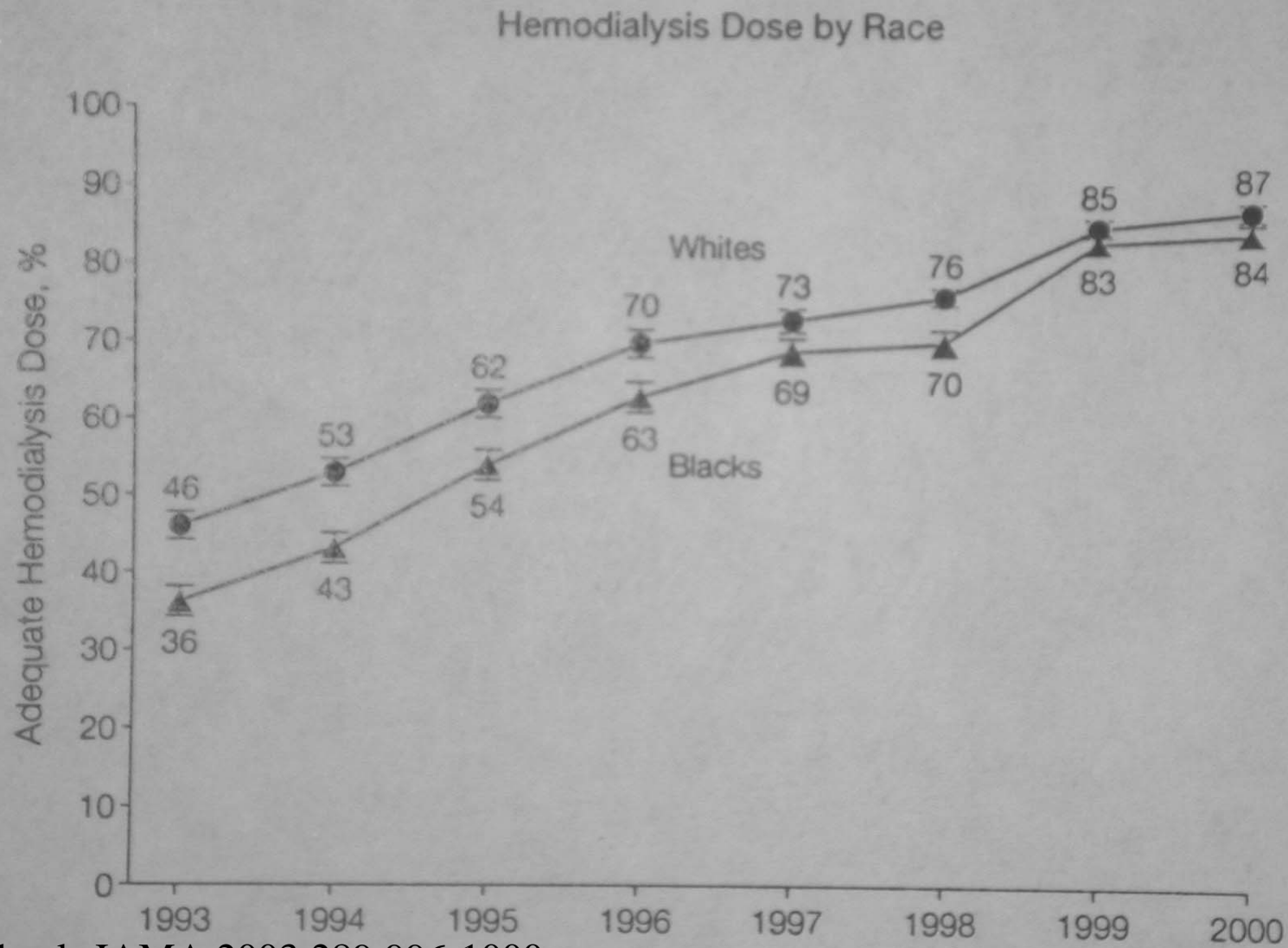


Figure 1. Changes in Adequacy of Hemodialysis Dose, 1993-2000



A. Sehgal- JAMA 2003;289:996-1000

Current practice depends upon the clinical decision-making capacity and reliability of autonomous individual practitioners, for classes of problems that routinely exceeds the bounds of unaided human cognition

Daniel R. Masys, M.D.

2001 IOM Annual Meeting

Cover The Uninsured Week • March 10-16

Her mom gets cancer.
They find the tumor early.
Her mom is OK.

Her mom gets cancer.
She's diagnosed too late.
Her mom is gone.

When you're uninsured, life turns out differently.

There are 41 million Americans with no health insurance.
March 10-16 is *Cover The Uninsured Week* in your community. Get involved—and help get America covered.

**CoverThe
UninsuredWeek**

www.CoverTheUninsuredWeek.org

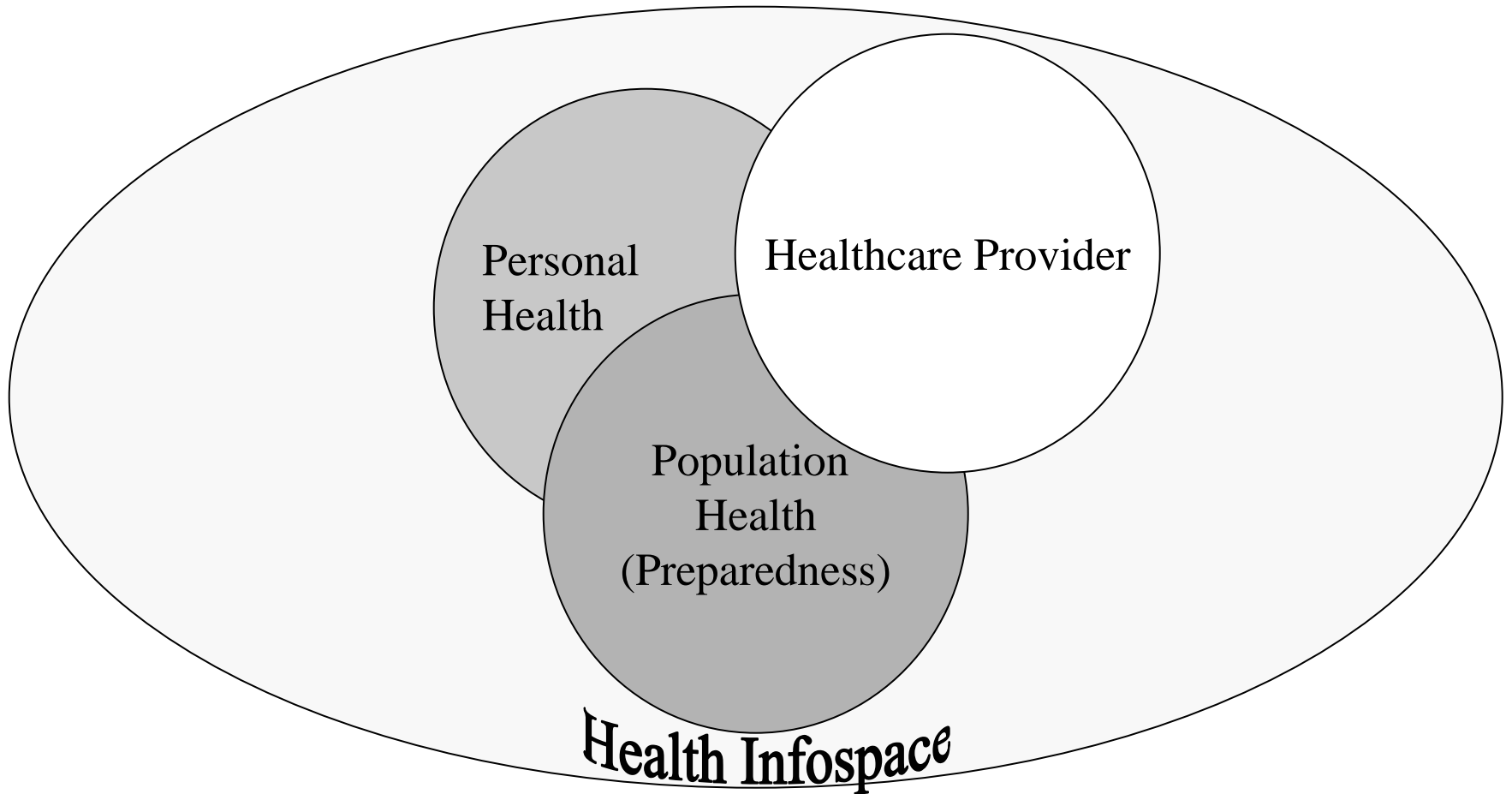
U.S. Chamber of Commerce • AFL-CIO • The Business Roundtable • Service Employees International Union • Healthcare Leadership Council • AFSCME • American Medical Association • American Nurses Association • Health Insurance Association of America • Families USA • Blue Cross and Blue Shield Association • American Hospital Association • Federation of American Hospitals • Catholic Health Association of the United States • AARP • United Way of America • The California Endowment • W. K. Kellogg Foundation • The Robert Wood Johnson Foundation

**“We have wonderful technology,
but some grocery stores have better
technology than our hospitals and
clinics.”**

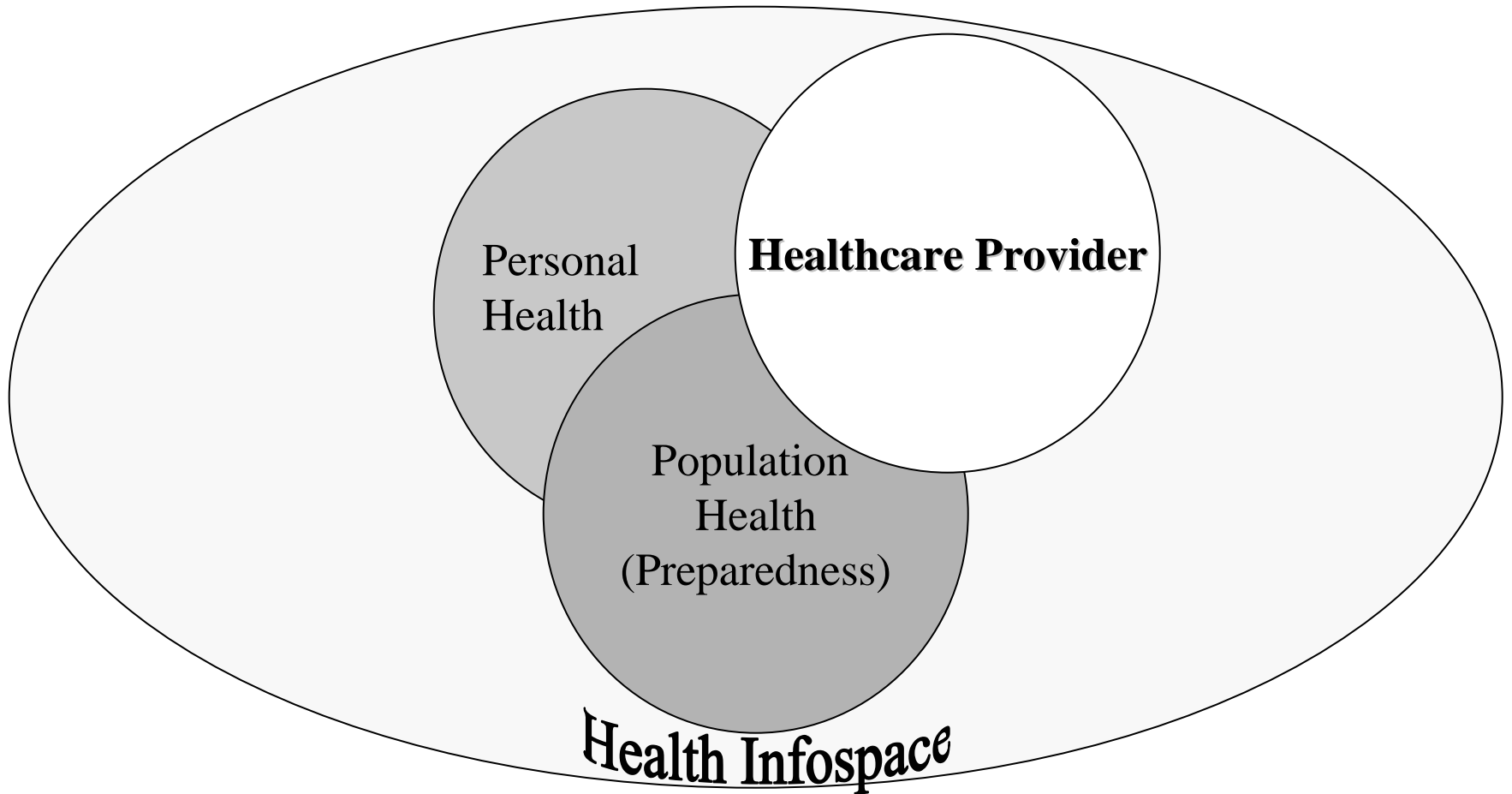
Secretary Tommy Thompson
Chicago Medical School Commencement
June 7, 2002

We stand on the “tipping point” of the rapid enhancement of the health care system into a high quality, efficient and effective system. Automation of information systems is the transforming technology

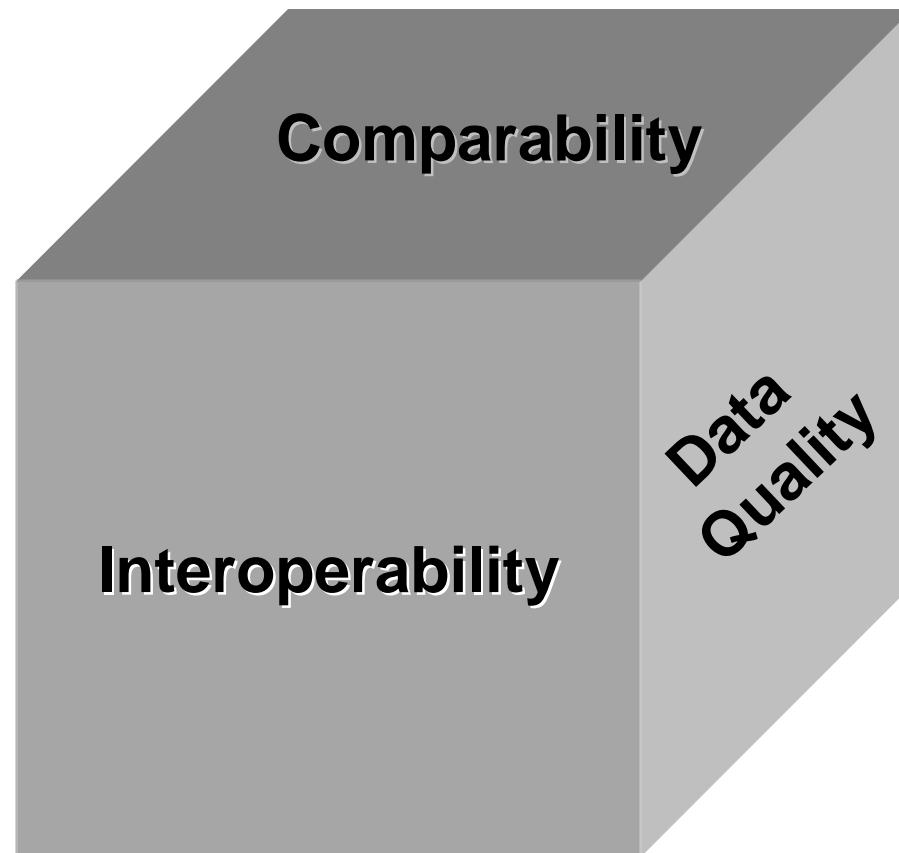
NHII



NHII



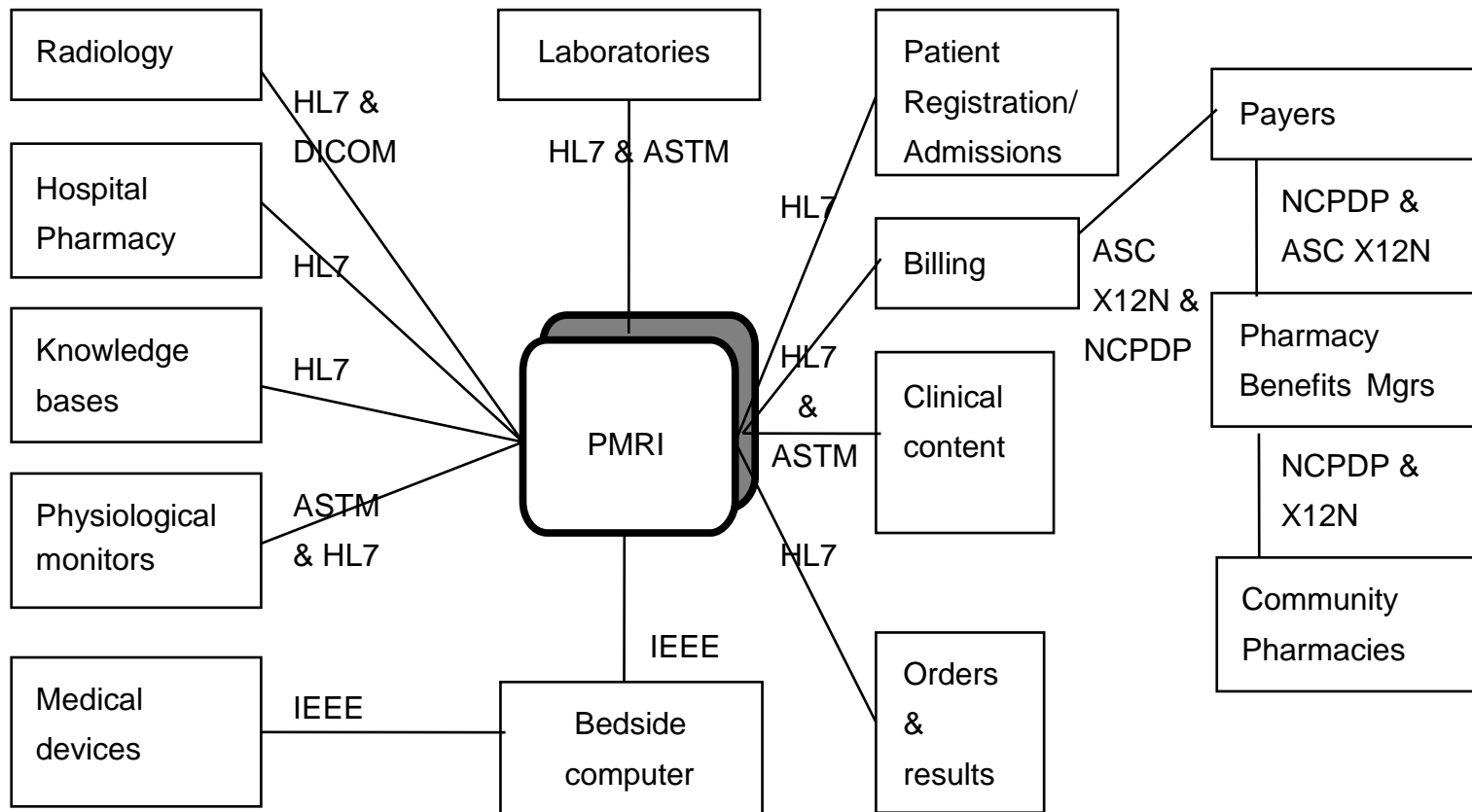
Framework for PMRI Standards





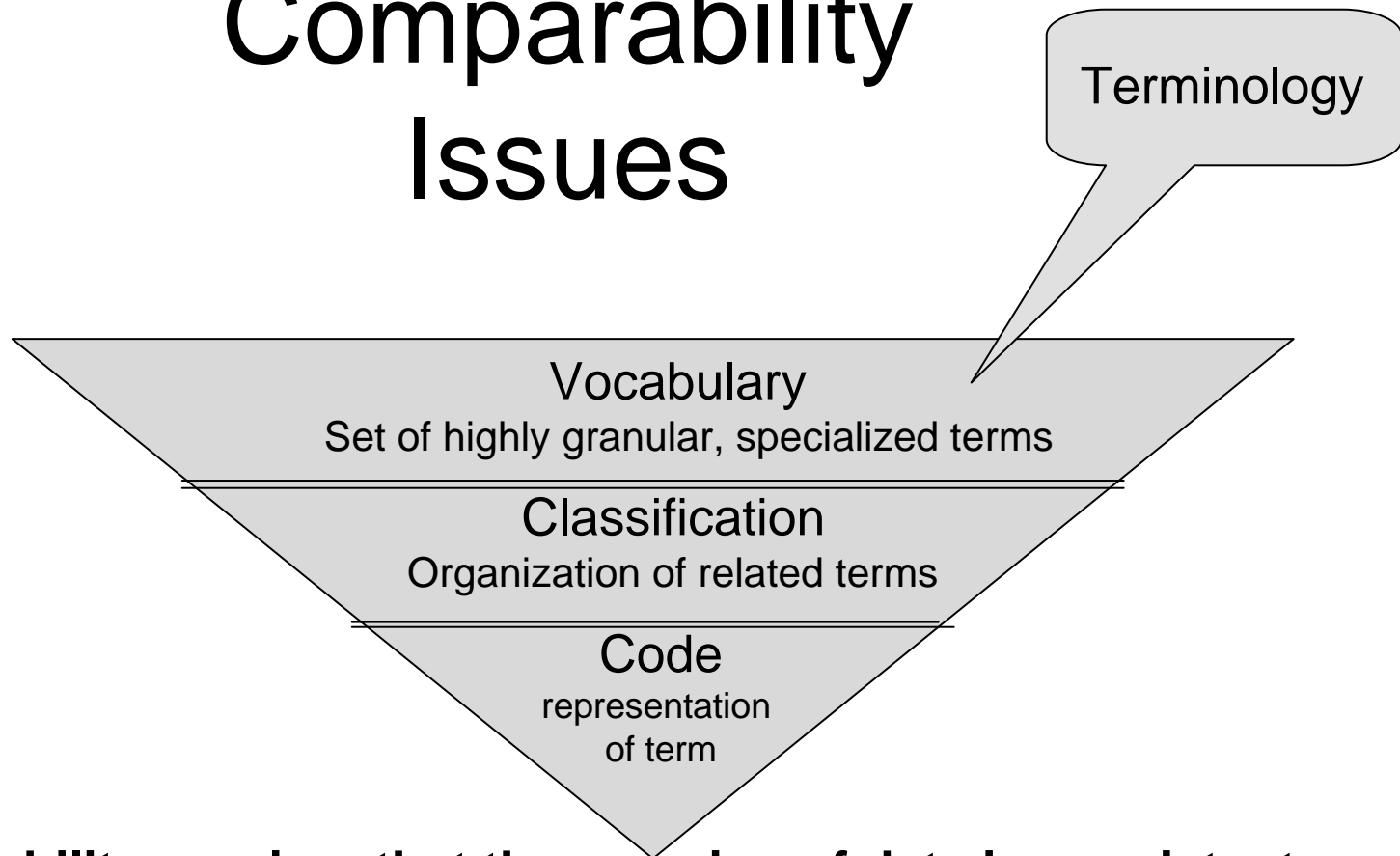
We're stuck on an interoperable definition of interoperability

Interoperability Status



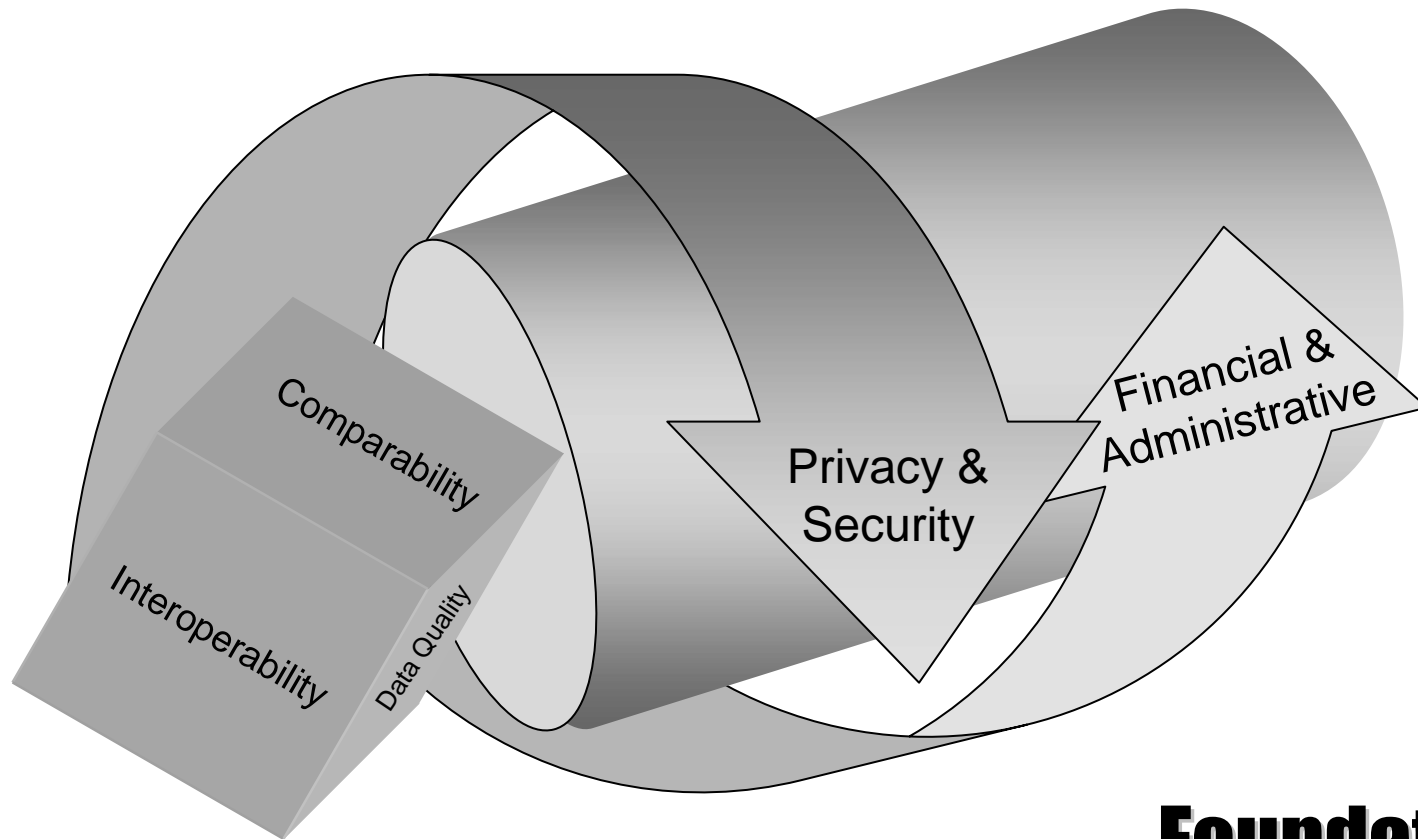
(Adapted from Electronic Health Records: Changing the Vision, Eds. GF Murphy, MA Hanken, and KA Waters. Philadelphia: W. B. Saunders Company, 1999)

Comparability Issues



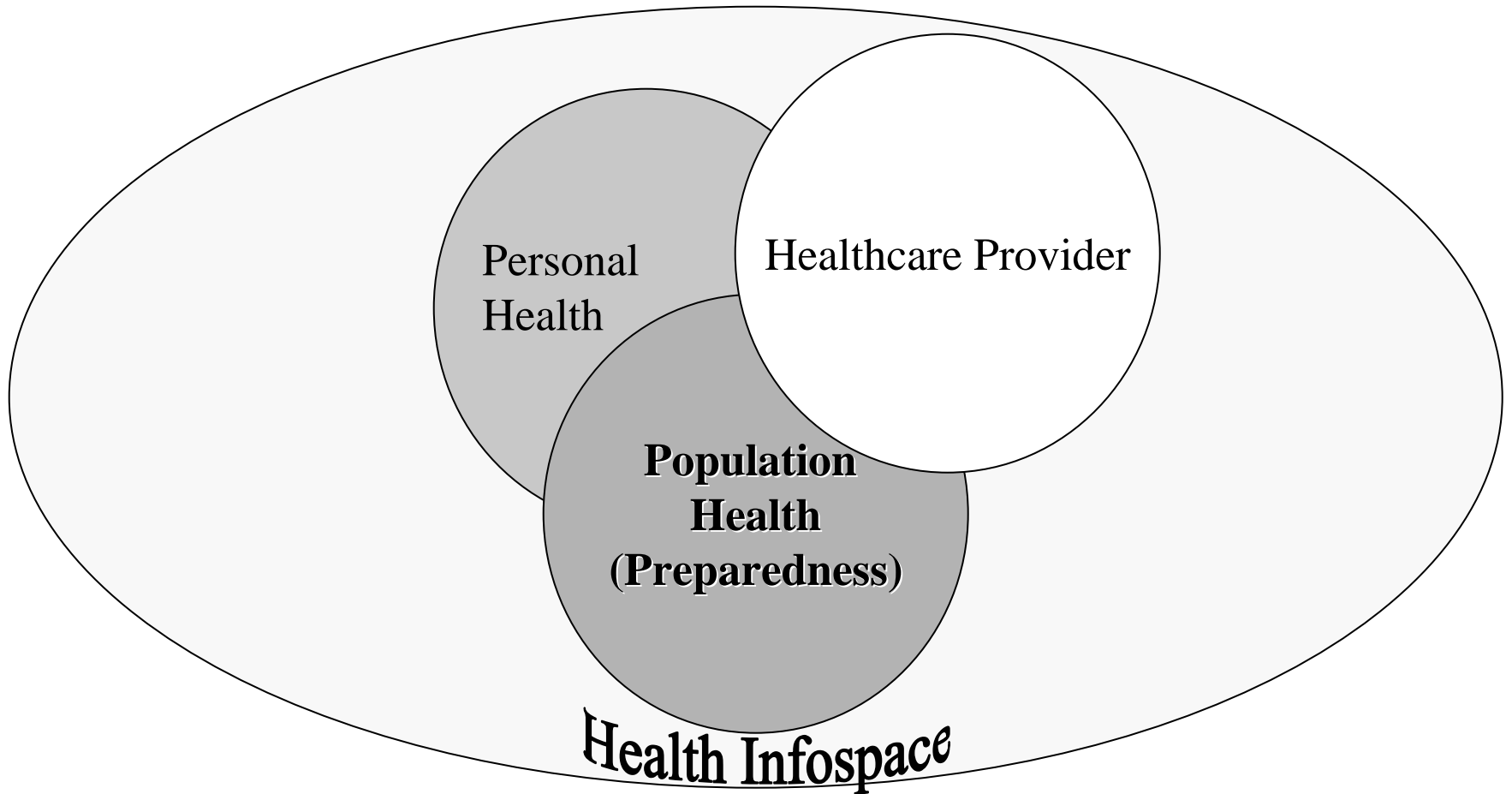
- **Comparability requires that the meaning of data is consistent when shared among different parties**

The Health Informatics Pipeline



**Foundation
HIPAA Standards**

NHII



2002 West Nile Virus Progression Week of April 28

- Human Case
- Positive Test Result



2002 West Nile Virus Progression Week of May 12

- Human Case
- Positive Test Result



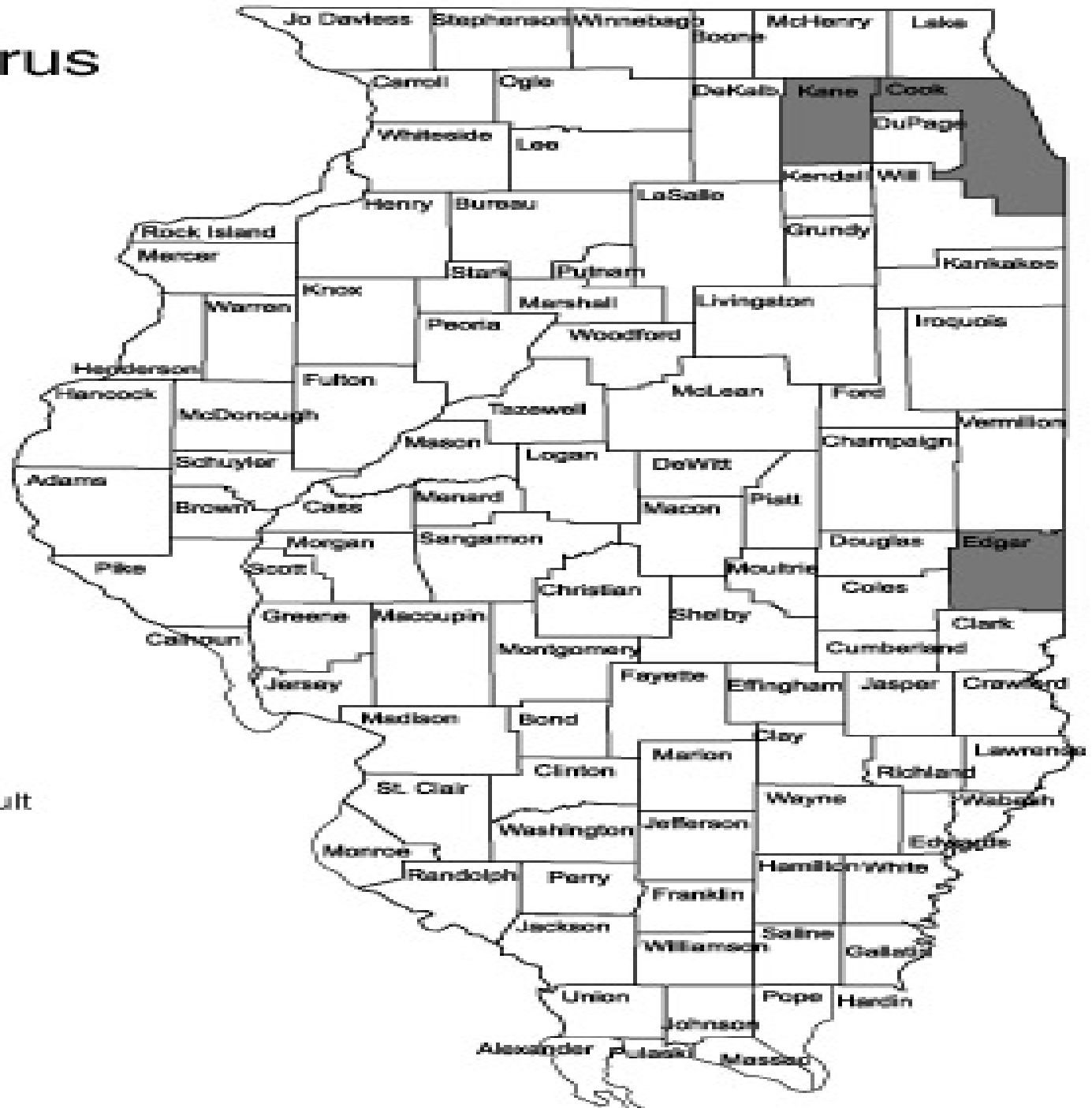
2002 West Nile Virus Progression Week of May 26

- Human Case
- Positive Test Result



2002 West Nile Virus Progression Week of June 2

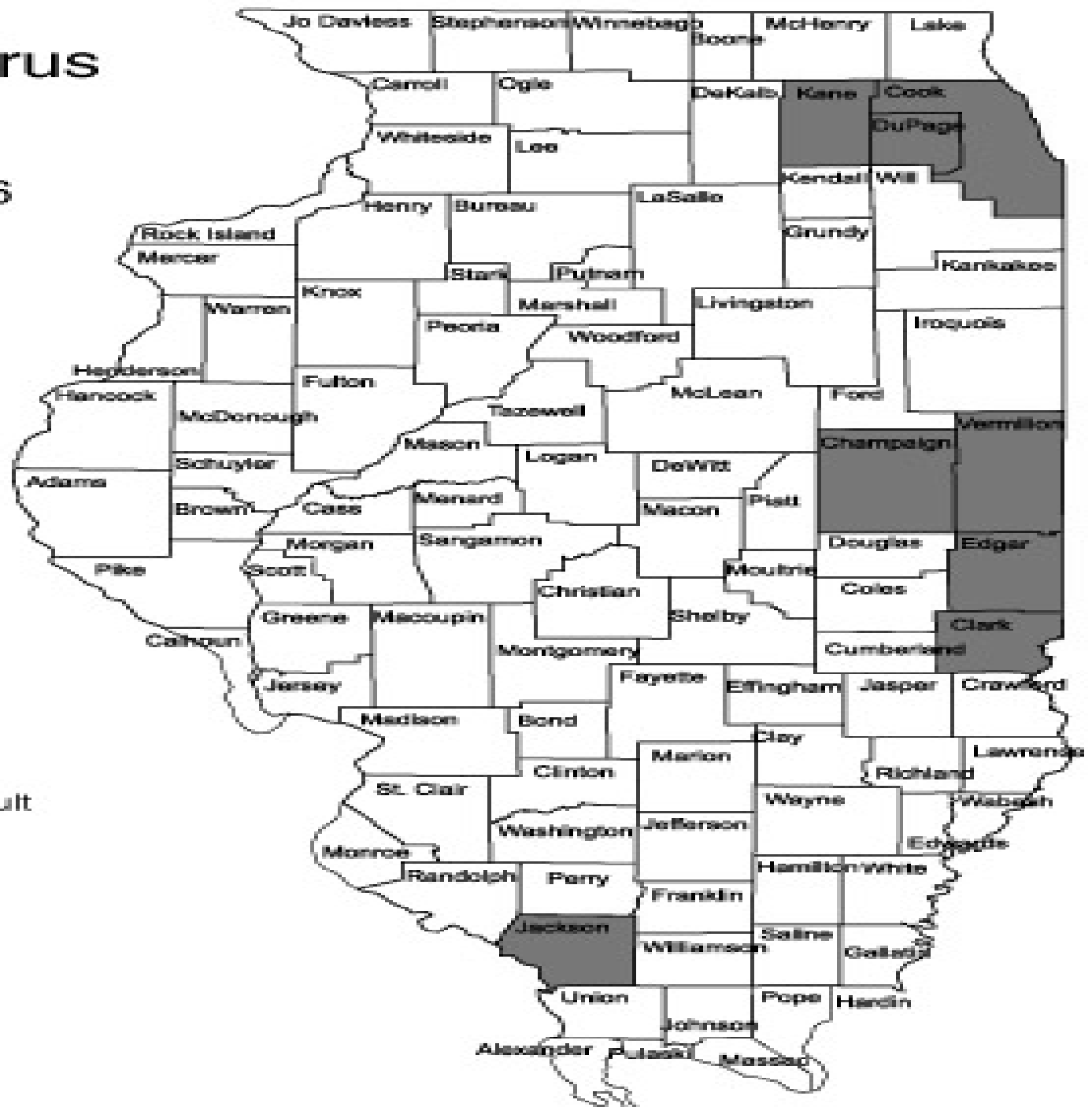
- Human Case
- Positive Test Result



2002 West Nile Virus Progression

Week of June 16

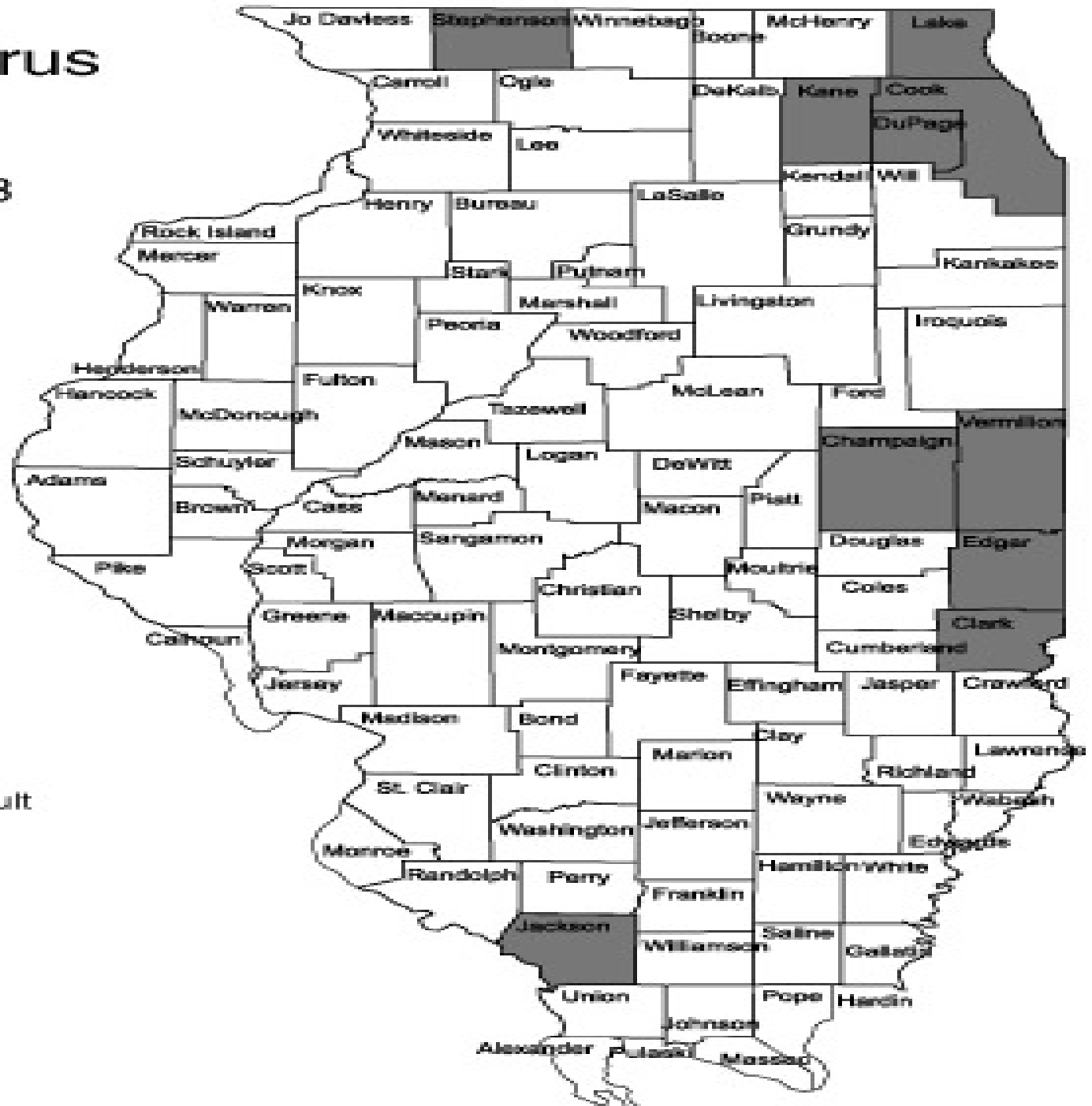
- Human Case
- Positive Test Result



2002 West Nile Virus Progression

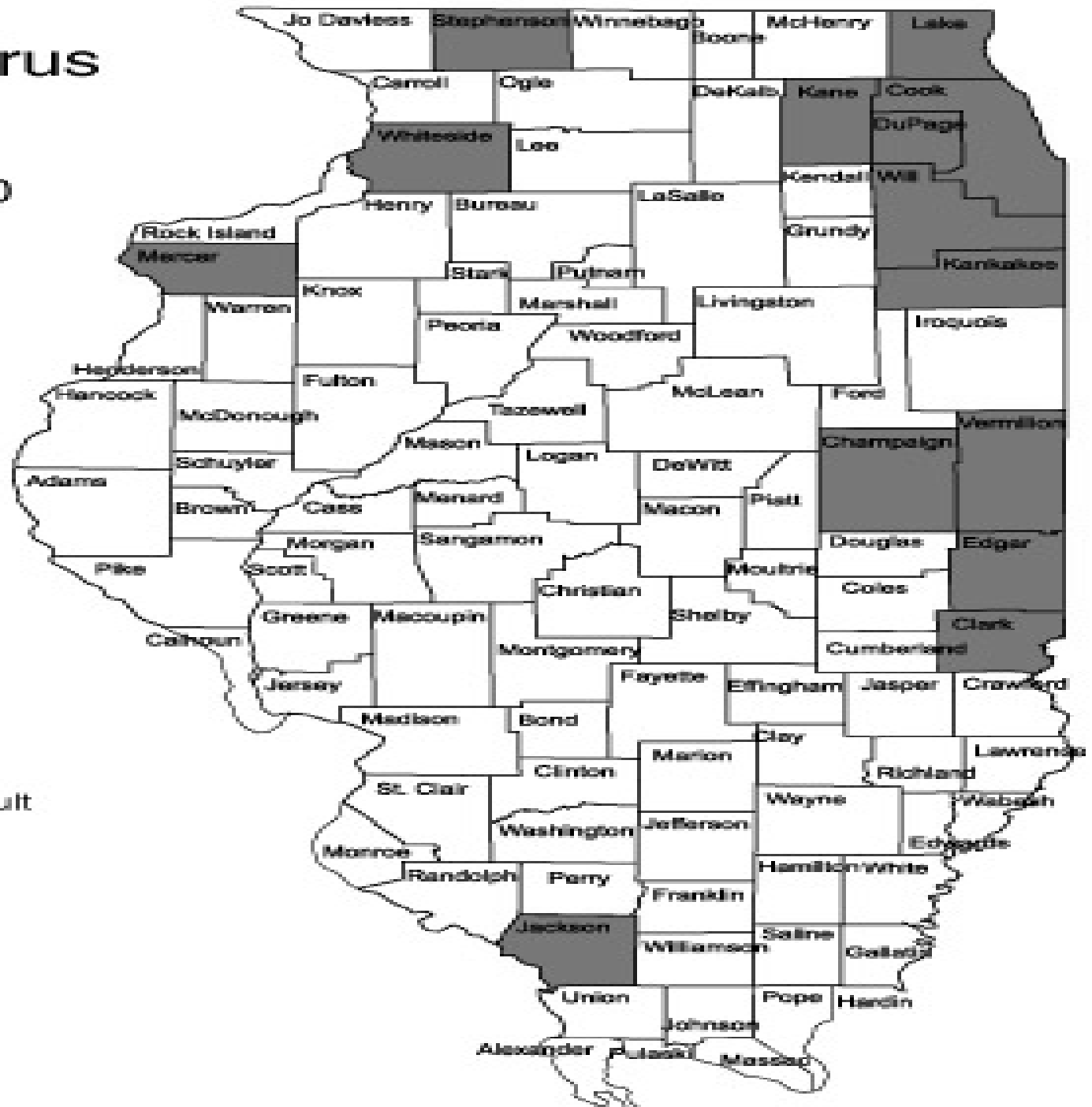
Week of June 23

- Human Case
- Positive Test Result



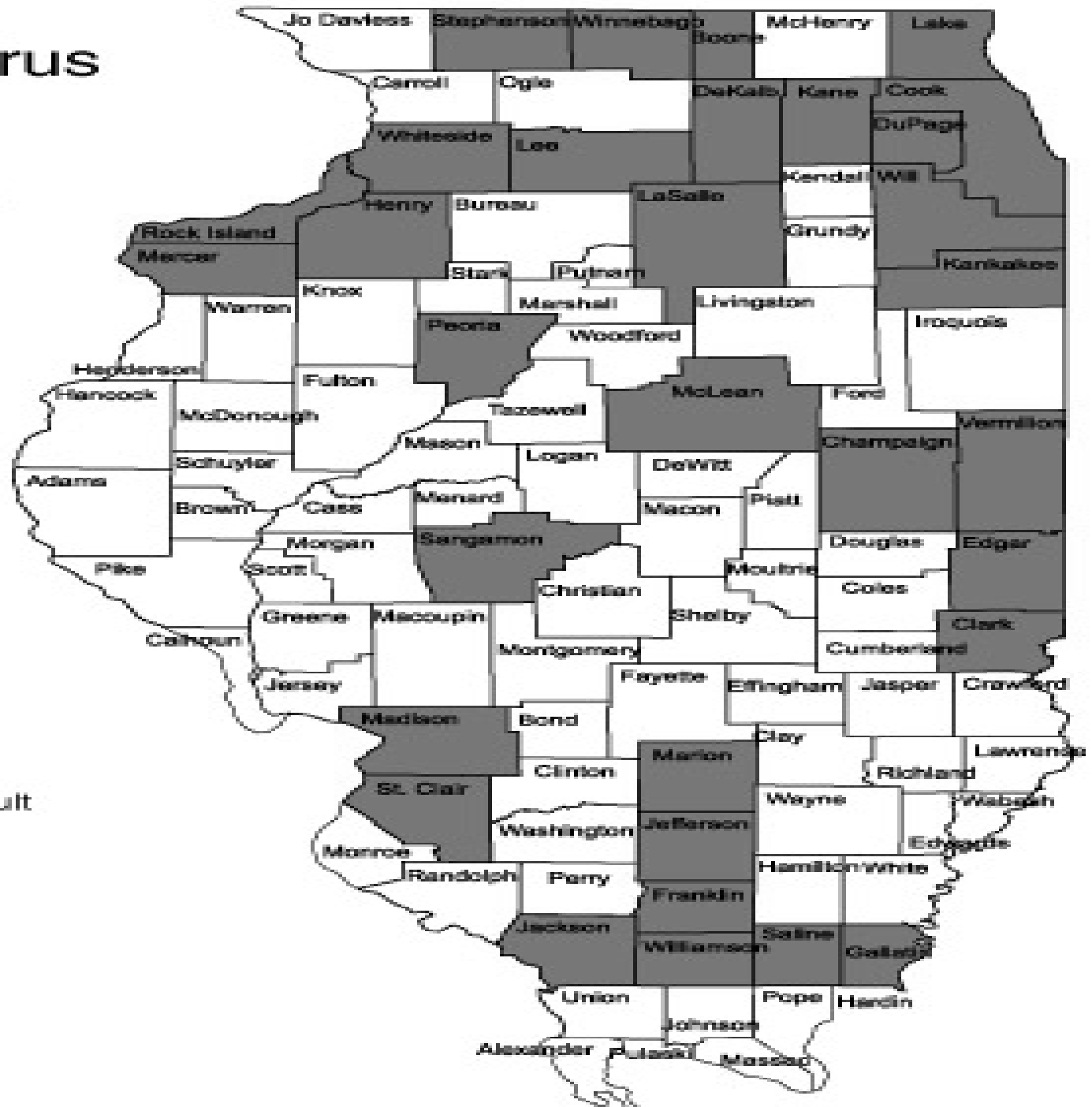
2002 West Nile Virus Progression Week of June 30

- Human Case
- Positive Test Result



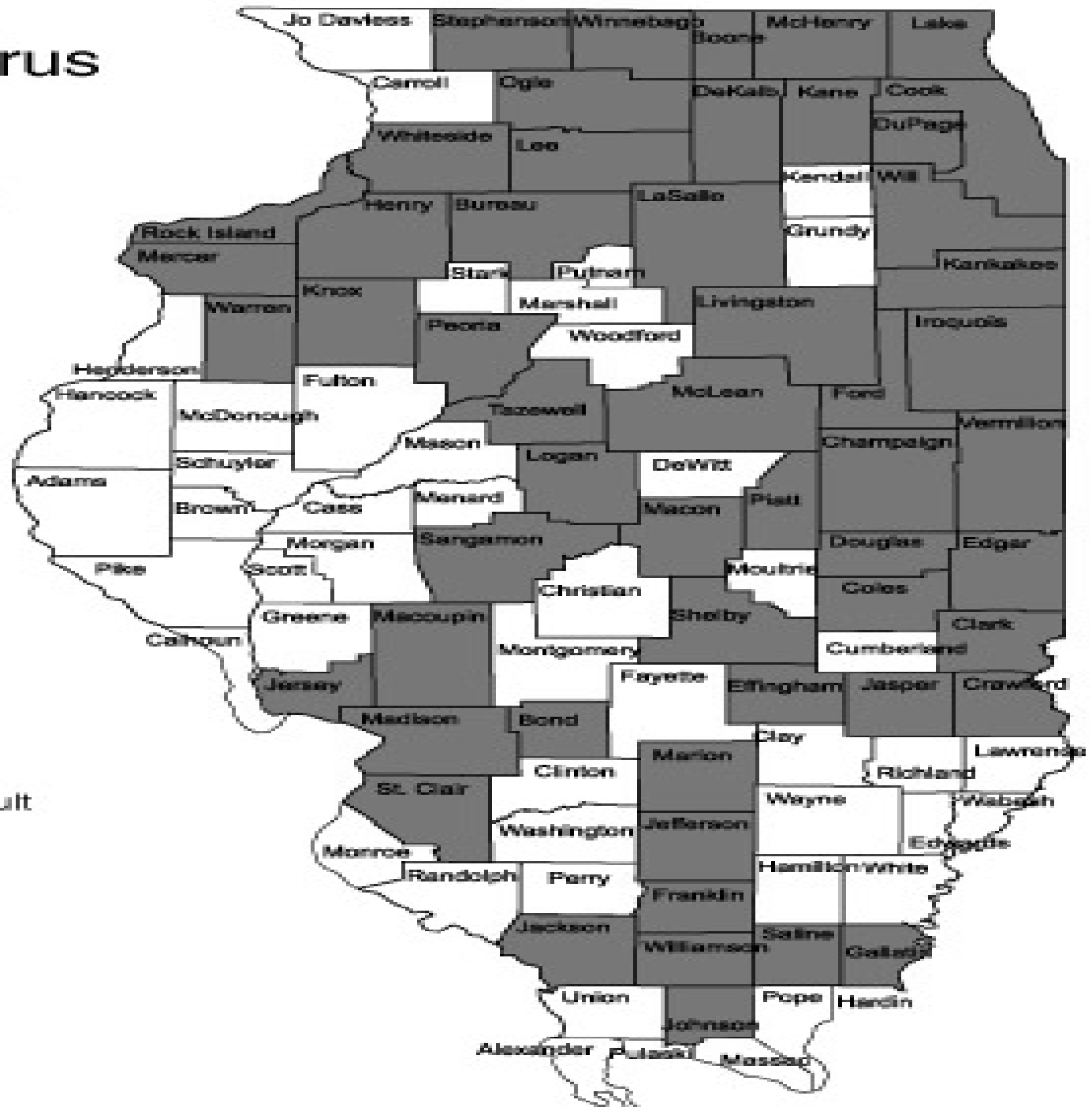
2002 West Nile Virus Progression Week of July 14

- Human Case
- Positive Test Result



2002 West Nile Virus Progression Week of July 28

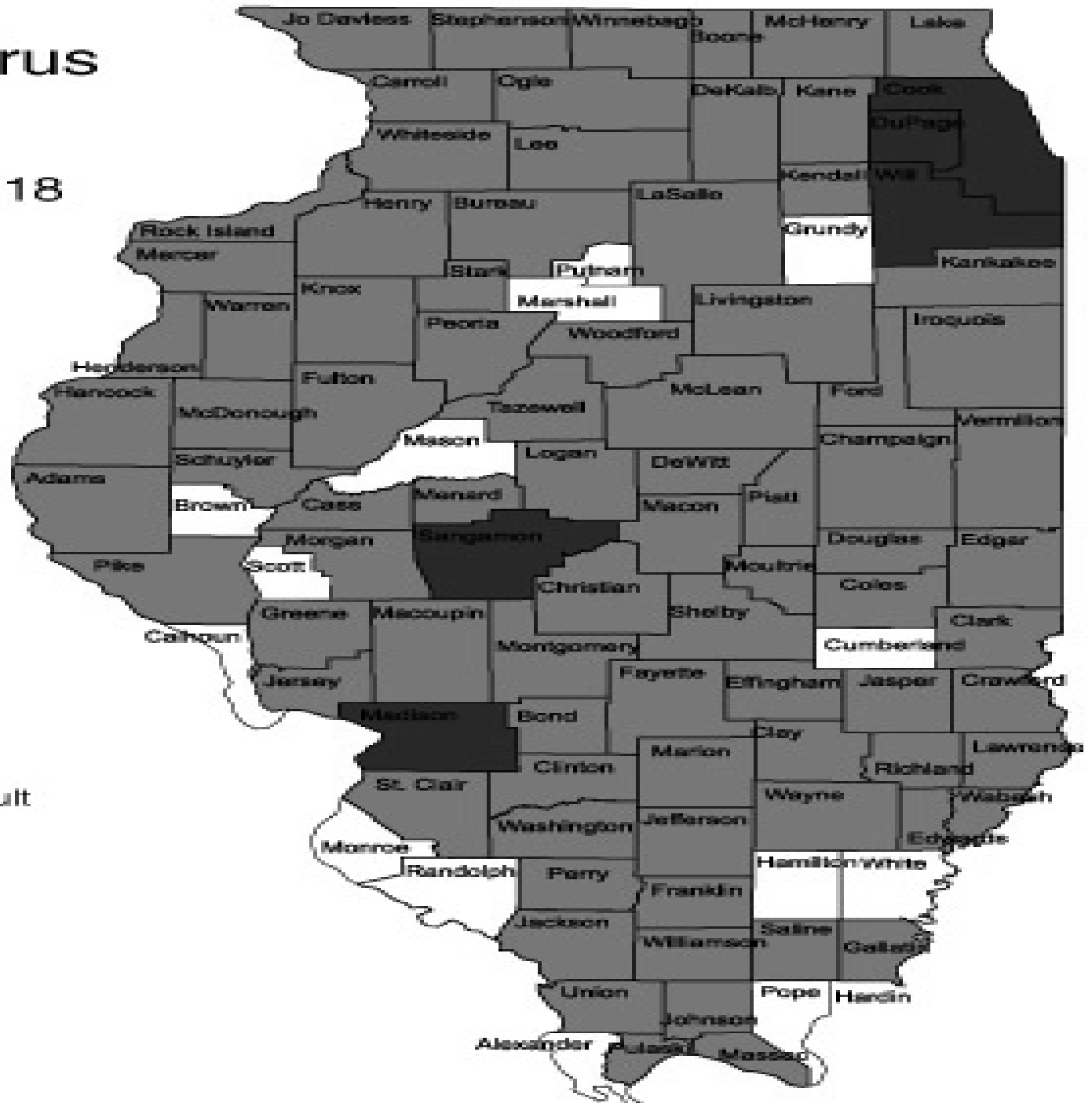
- Human Case
- Positive Test Result



2002 West Nile Virus Progression

Week of August 18

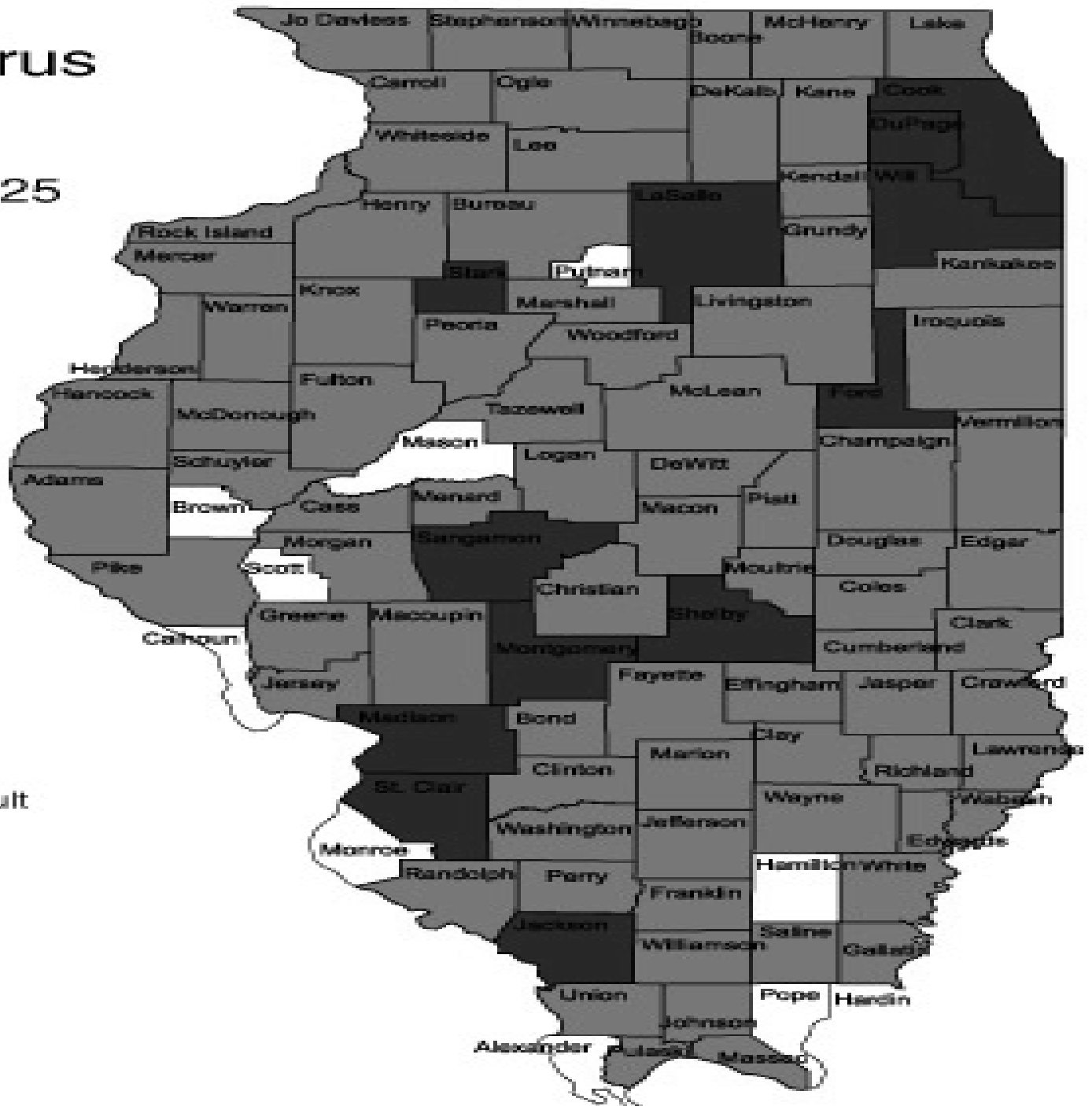
- Human Case
- Positive Test Result



2002 West Nile Virus Progression

Week of August 25

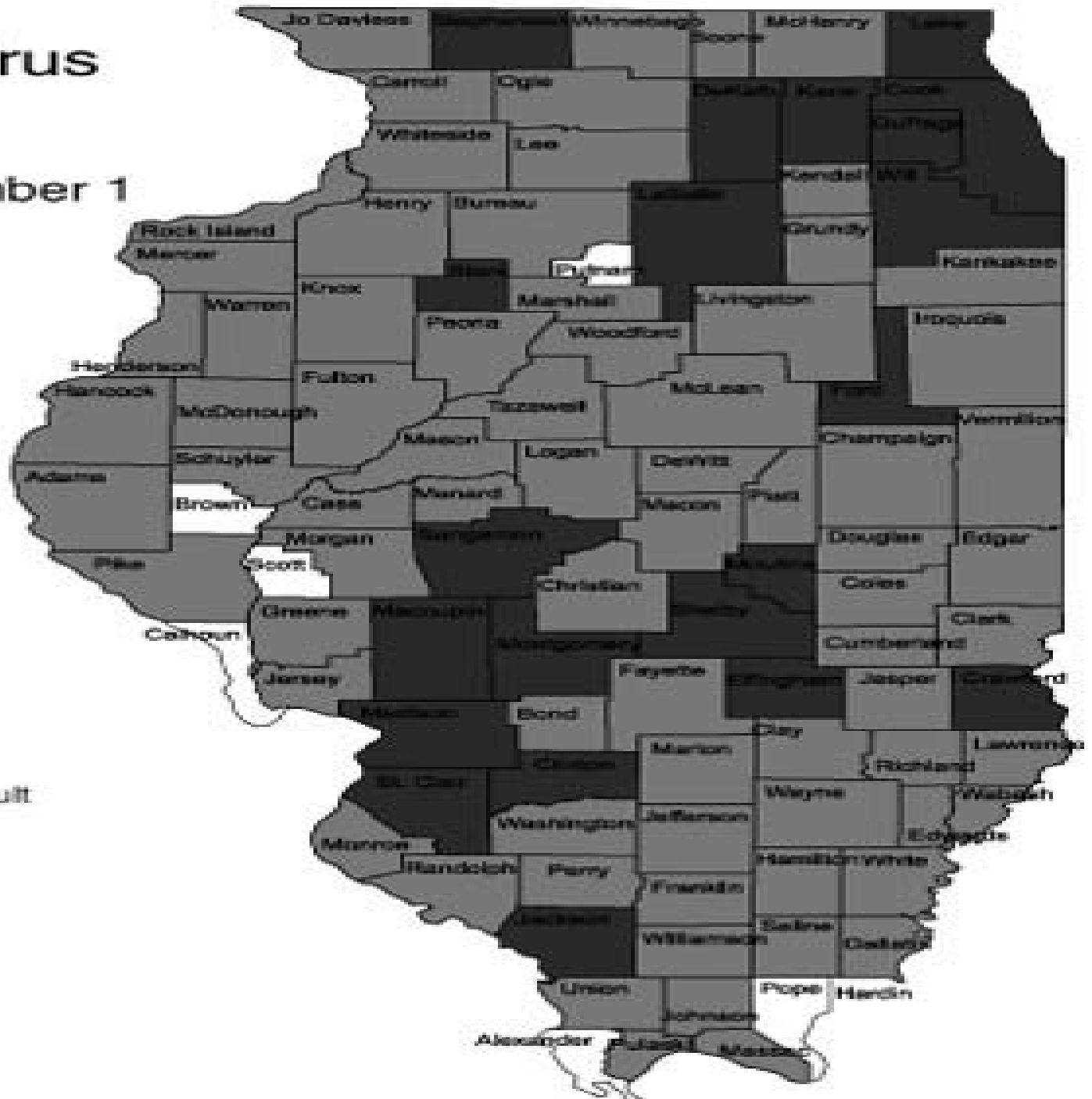
- Human Case
- Positive Test Result



2002

West Nile Virus Progression

Week of September 1

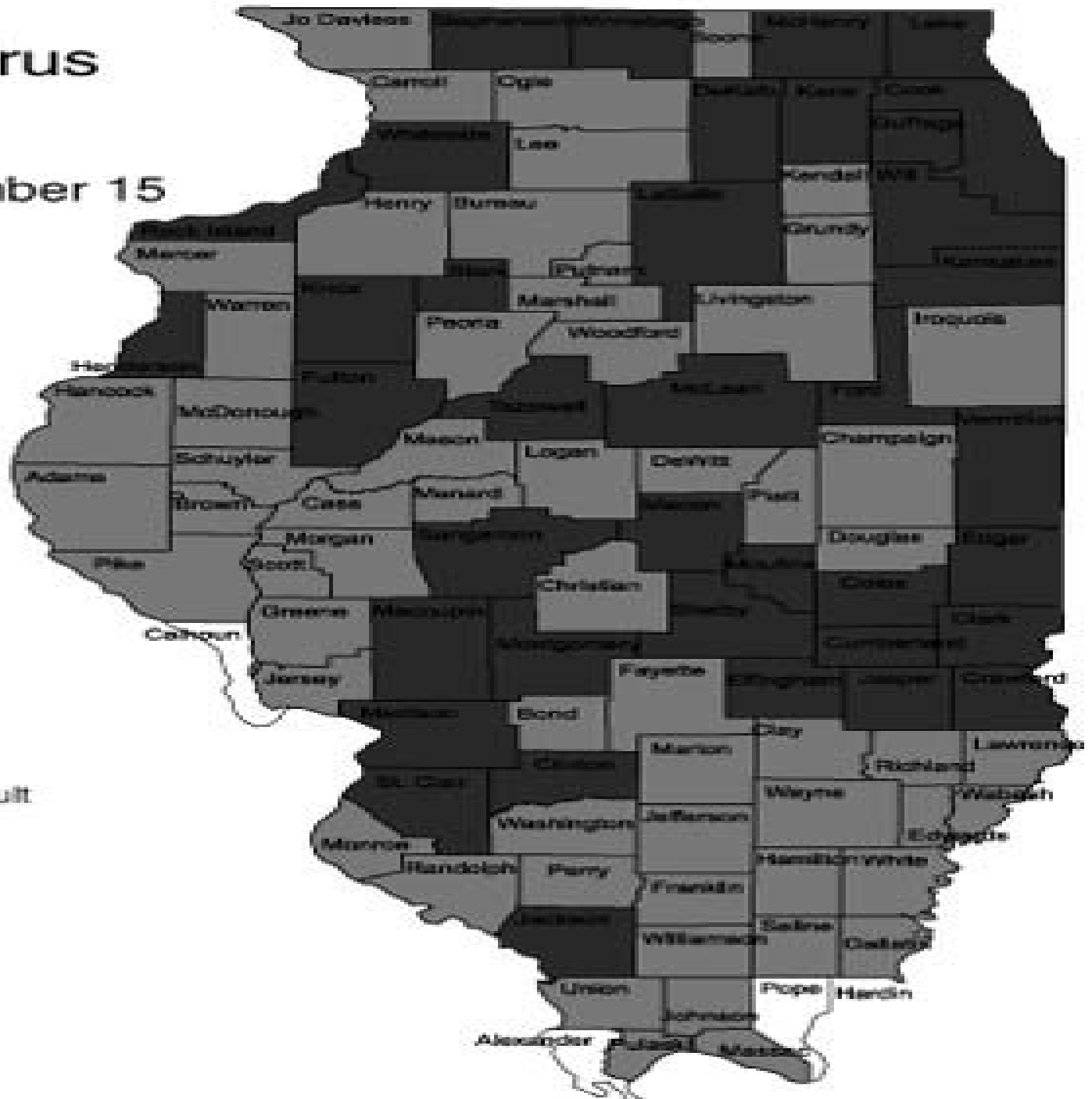


- Human Case
- Positive Test Result

2002

West Nile Virus Progression

Week of September 15

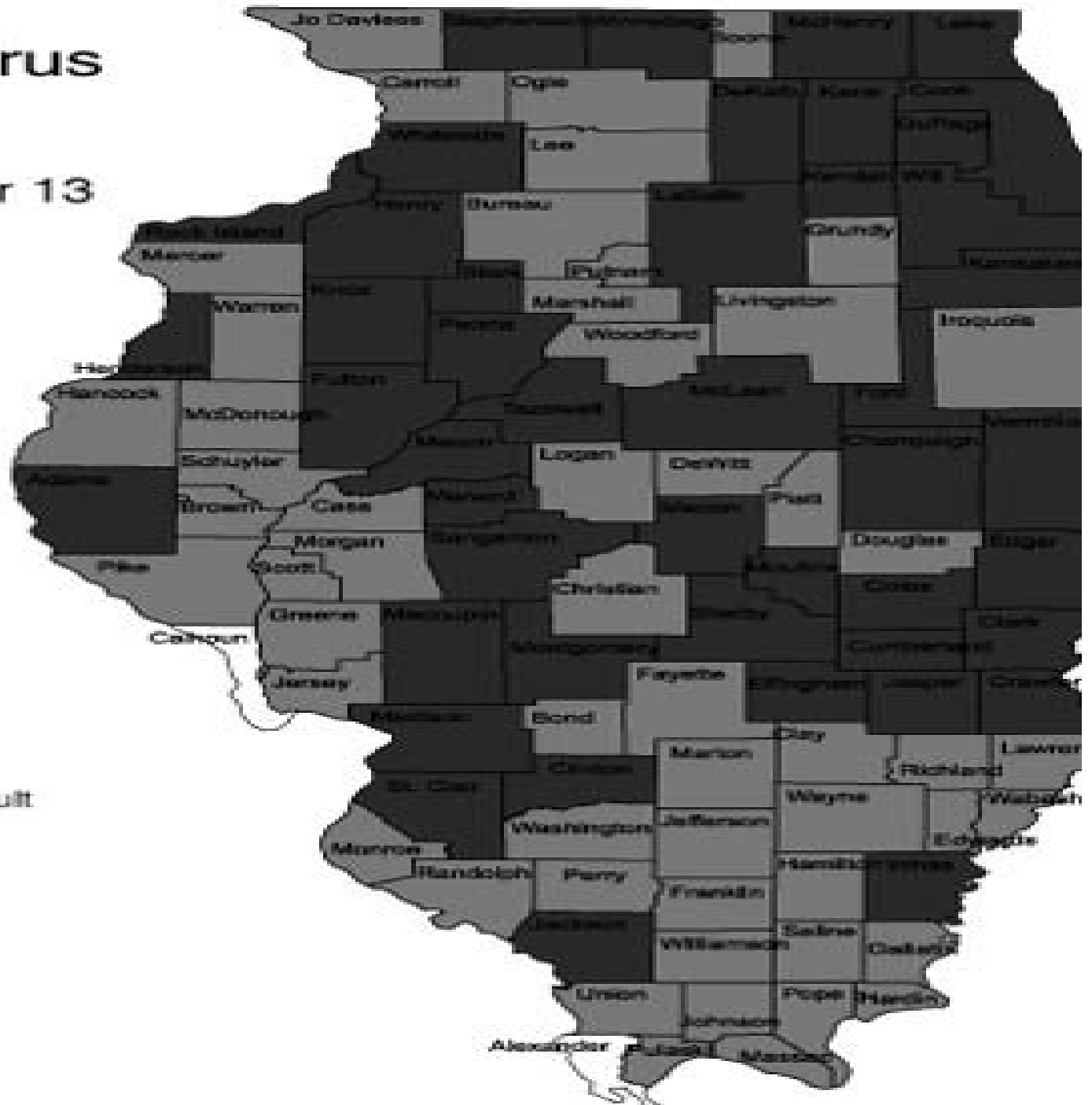


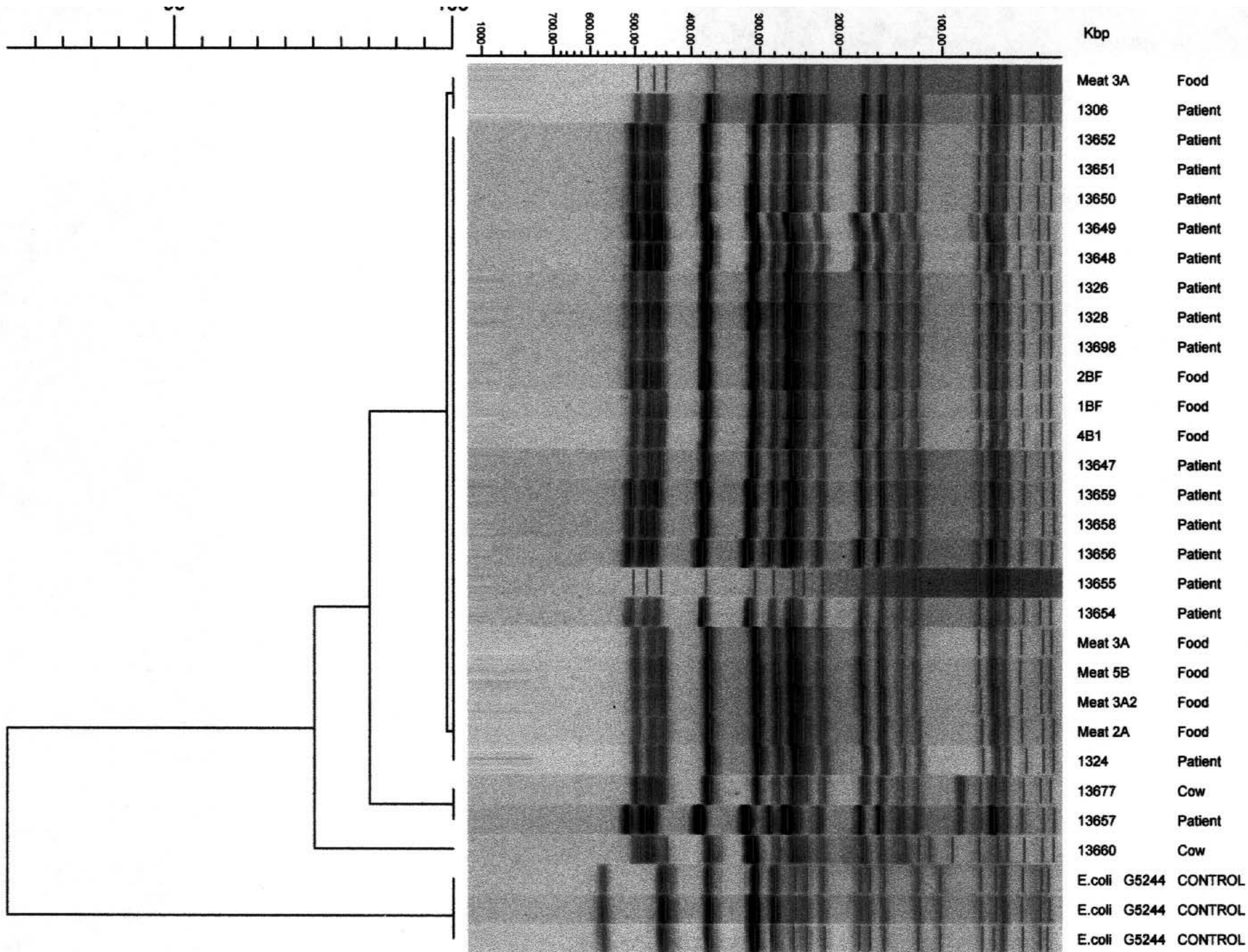
- Human Case
- Positive Test Result

2002 West Nile Virus Progression

Week of October 13

- Human Case
- Positive Test Result





ILLINOIS HEALTH NEWS

"THE GREATEST WEALTH OF THE COMMONWEALTH IS HEALTH"

STATE DEPARTMENT OF PUBLIC HEALTH
OFFICIAL MONTHLY BULLETIN

[Printed by Authority of the State of Illinois.]

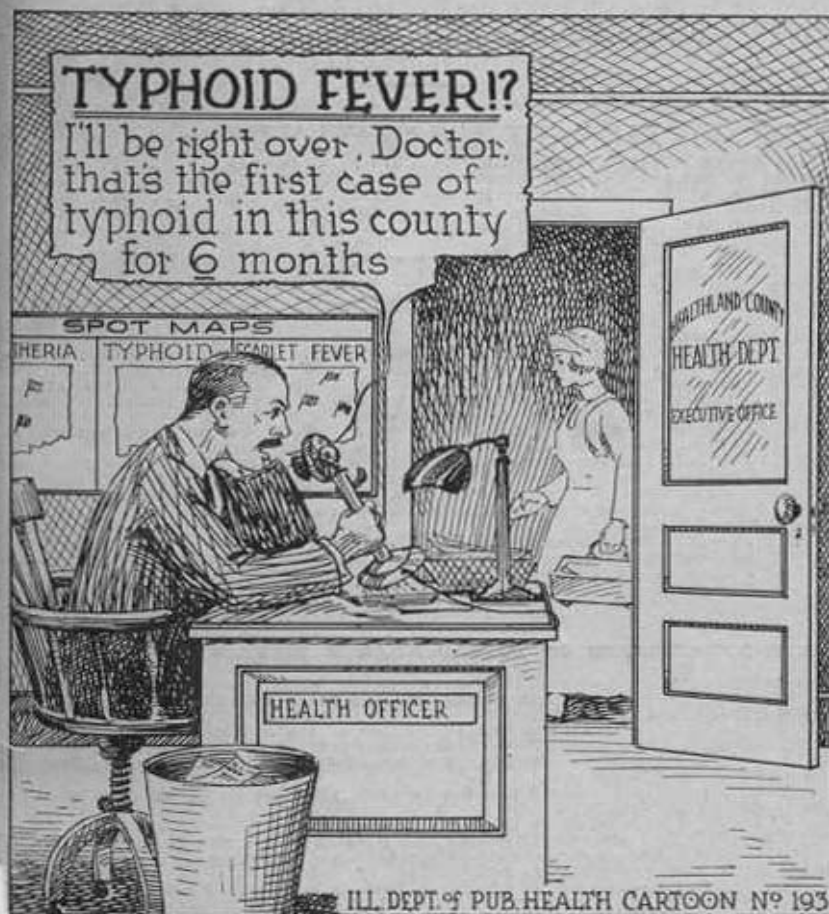
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Vol. IX, No. 12

DECEMBER, 1923

New Series



FULL-TIME COUNTY MEDICAL HEALTH SERVICE PREVENTS DISEASE.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH

REPORT OF A COMMUNICABLE DISEASE

DISEASE OR SUSPECTED DISEASE	<input type="checkbox"/> OUTBREAK RELATED	<input type="checkbox"/> CASE	DATE OF ONSET	<input type="checkbox"/> MALE
	<input type="checkbox"/> CARRIER			<input type="checkbox"/> FEMALE

PATIENT'S LAST NAME, FIRST NAME	AGE	<input type="checkbox"/> NATIVE AMERICAN	HISPANIC
	<input type="checkbox"/> MOS.	<input type="checkbox"/> ASIAN OR PACIFIC ISL.	<input type="checkbox"/> YES
	<input type="checkbox"/> YRS.	<input type="checkbox"/> BLACK	<input type="checkbox"/> NO
		<input type="checkbox"/> WHITE	<input type="checkbox"/> UNK.

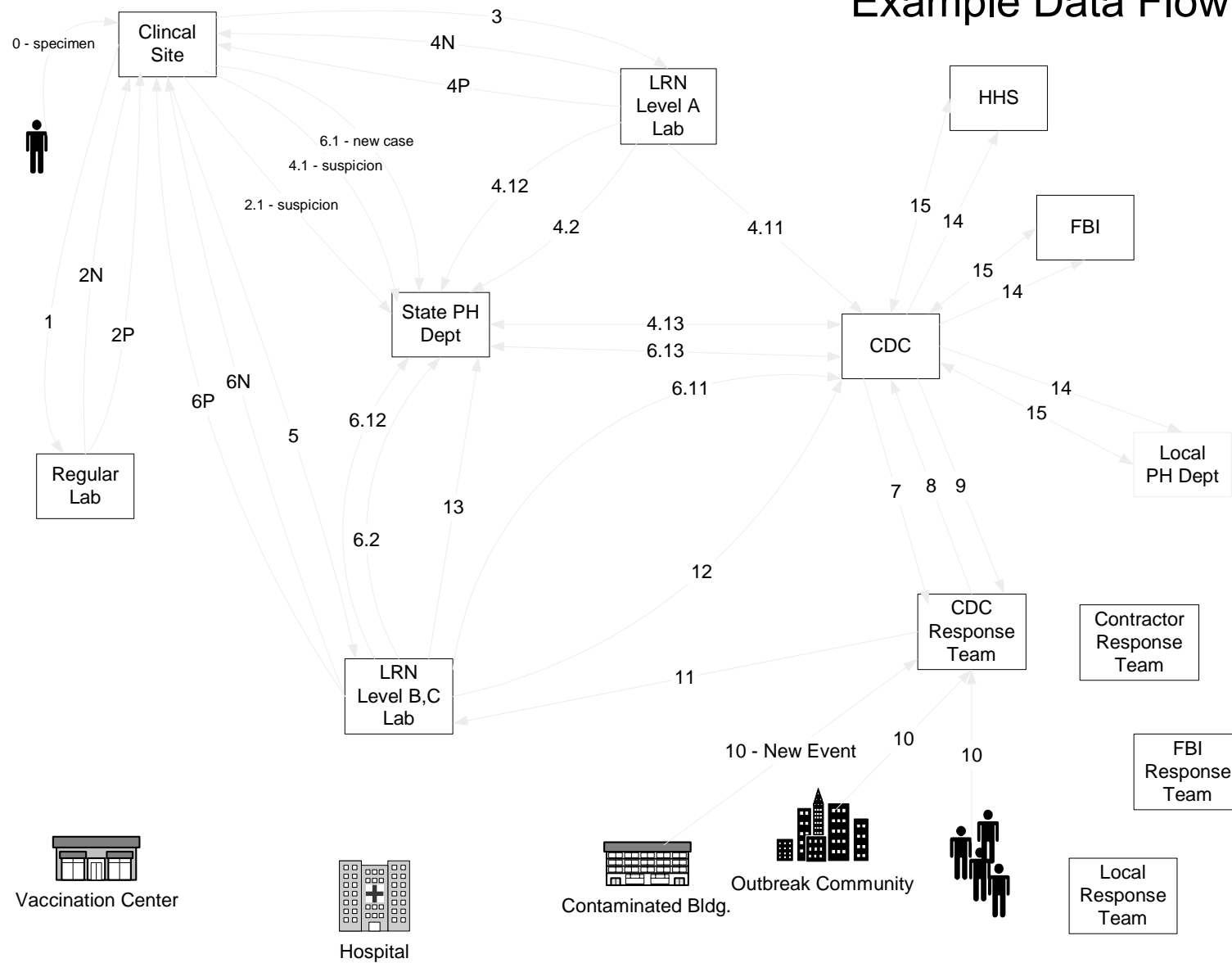
PATIENT'S STREET ADDRESS	CITY OR POST OFFICE	COUNTY	TELEPHONE
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<input type="checkbox"/> OUT-PATIENT	NAME AND ADDRESS OF HOSPITAL
<input type="checkbox"/> IN-PATIENT	
<input type="checkbox"/> NOT TREATED IN HOSPITAL	

PHYSICIAN'S NAME	ADDRESS	CITY OR TOWN	TELEPHONE
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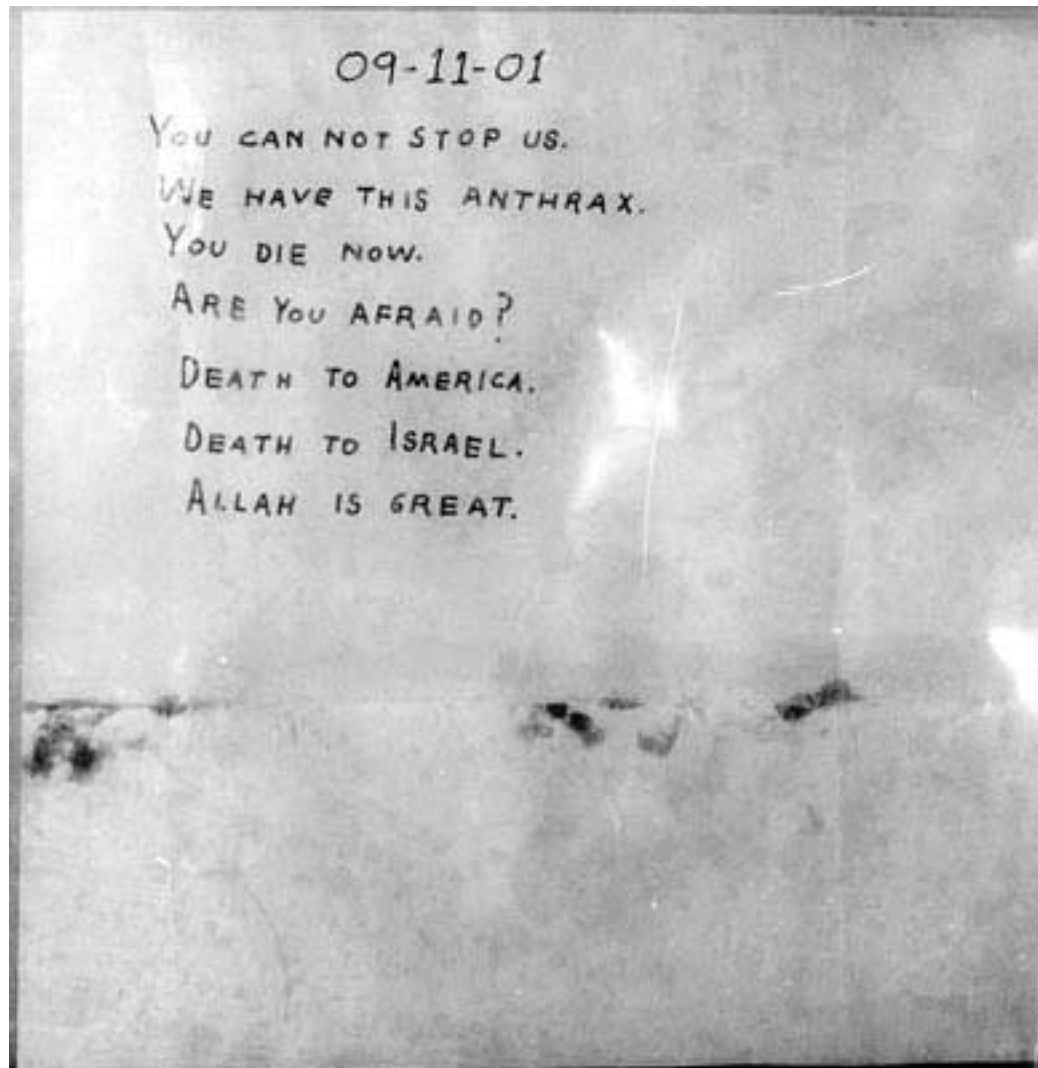
DATE OF REPORT	REPORTED BY (PLEASE CIRCLE)	HEALTH JURISDICTION
	STATE LAB ICP HOSP. PHYSICIAN HOSP. LAB PRIVATE LAB	
	OTHER	
	Printed by Authority of the State of Illinois PO. #511552 50M 11/00	IL482-0818

Example Data Flow



C. Broome - CDC

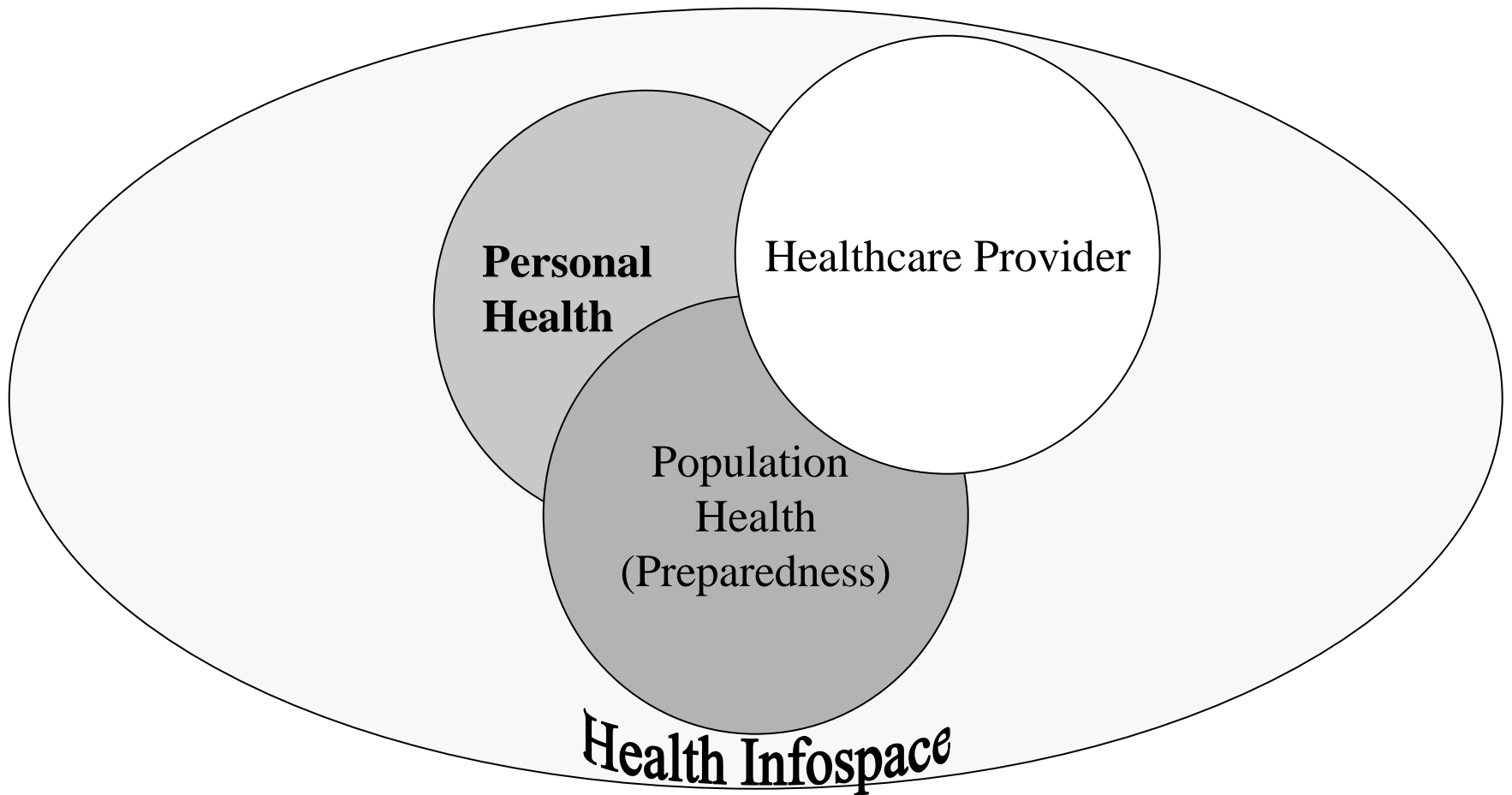
The Need for Solutions is Urgent



Third Wave of Public Health Information System Development

- Federal Centric
 - State developed prototype
 - Installed in many states
- State Centric
 - System Development by Consortium of States
 - Web enabled Immunization Registry
 - Reuse Model
 - ASP Model

NHII



Personal Health Dimension

- **Supports the management of individual wellness and health care decision-making**
- Includes a personal health record, created and controlled by the individual or family
- **Includes non-clinical information such as self-care trackers, health materials, local public health and health care services**

General attitudes toward PHR

When asked about specific aspects of a PHR, consumers react favorably:

- 83% of healthcare consumers want lab tests available online (Harris)
- 69% want online charts for managing chronic conditions (Harris)
- 80% want to receive personalized medical information online from their doctor after an office visit (Harris)

I always knew that Data was a
four letter word,
I just never knew it was
spelled
T-U-R-F

Phil Lee, MD

HHS Agencies with NHI Responsibilities

- AHRQ
- ASIRM
- ASPE
- CDC
- CMS
- Data Council
- FDA
- HRSA
- NCHS
- NIH
- NLM
- OCR
- OPHS

In the modern era, every century has had its major advance that has brought medical science another giant step forward. What will the major advance of the 21st century be?

I am convinced that the medical revolution of our children's lifetimes will be the application of information technology to health care.

Secretary Thompson
March 21, 2003

A Word of Caution

The real danger is not that
computers will begin to
think like men, but that men
will begin to think like
computers

Sidney J. Harris

A Word of Encouragement

Not only strike while the
iron is hot,

make it hot by striking –

Oliver Cromwell