

NEW JERSEY'S STROKE CENTER ACT

Abate Mammo, PhD, Debra Virgilio, RN, MPH, Martin Gizzi, MD, PhD

New Jersey Department of Health and Senior Services and the Stroke Advisory Panel

The Stroke Center Act was written by Senator Barbara Buono in 2000 and was signed into law on September 1, 2004. The act was designed to stimulate NJ hospitals to create a statewide network of stroke centers. The network links primary stroke centers to a smaller number of comprehensive centers in a hub-and-spoke arrangement.

The Act was intended to place access to high-level stroke care within 30 minutes of every resident of the state of New Jersey.

The Department of Health and Senior Services created a process for stroke designation through the hospital licensure system. Licensing rules were set forth at NJAC 8:43G-7A, published in the New Jersey Register (39 NJR 439(a)) on February 5, 2007. The full text can be accessed at http://www.njleg.state.nj.us/2004/bills/pl04/l136_.pdf

PRIMARY STROKE CENTERS ARE REQUIRED TO:

- Have acute stroke teams in place at all times that can respond to the bedside within 15 minutes of patient arrival or identification,
- Maintain neurology and emergency department personnel trained in the treatment of acute stroke.
- Maintain telemetry or critical care beds staffed by physicians and nurses trained in caring for acute stroke patients,
- Provide for neurosurgical services within 2 hours either at the hospital or under agreement with a comprehensive stroke center;
- Provide acute care rehabilitation services; and
- Enter into a written transfer agreement with a comprehensive stroke center

COMPREHENSIVE STROKE CENTERS ARE REQUIRED TO MEET ALL OF THE CRITERIA FOR PRIMARY STROKE CENTERS AND, IN ADDITION:

- Maintain a neurosurgical team capable of assessing and treating complex stroke
- Maintain on staff a neuro-radiologist (boarded) and a neuro-interventionalist
- Provide comprehensive rehabilitation services either on site or by transfer agreement
- Provide MRI, CTA and digital subtraction angiography
- Develop and maintain sophisticated outcomes assessment and performance improvement capability
- Provide graduate medical education in stroke and carry out research in stroke

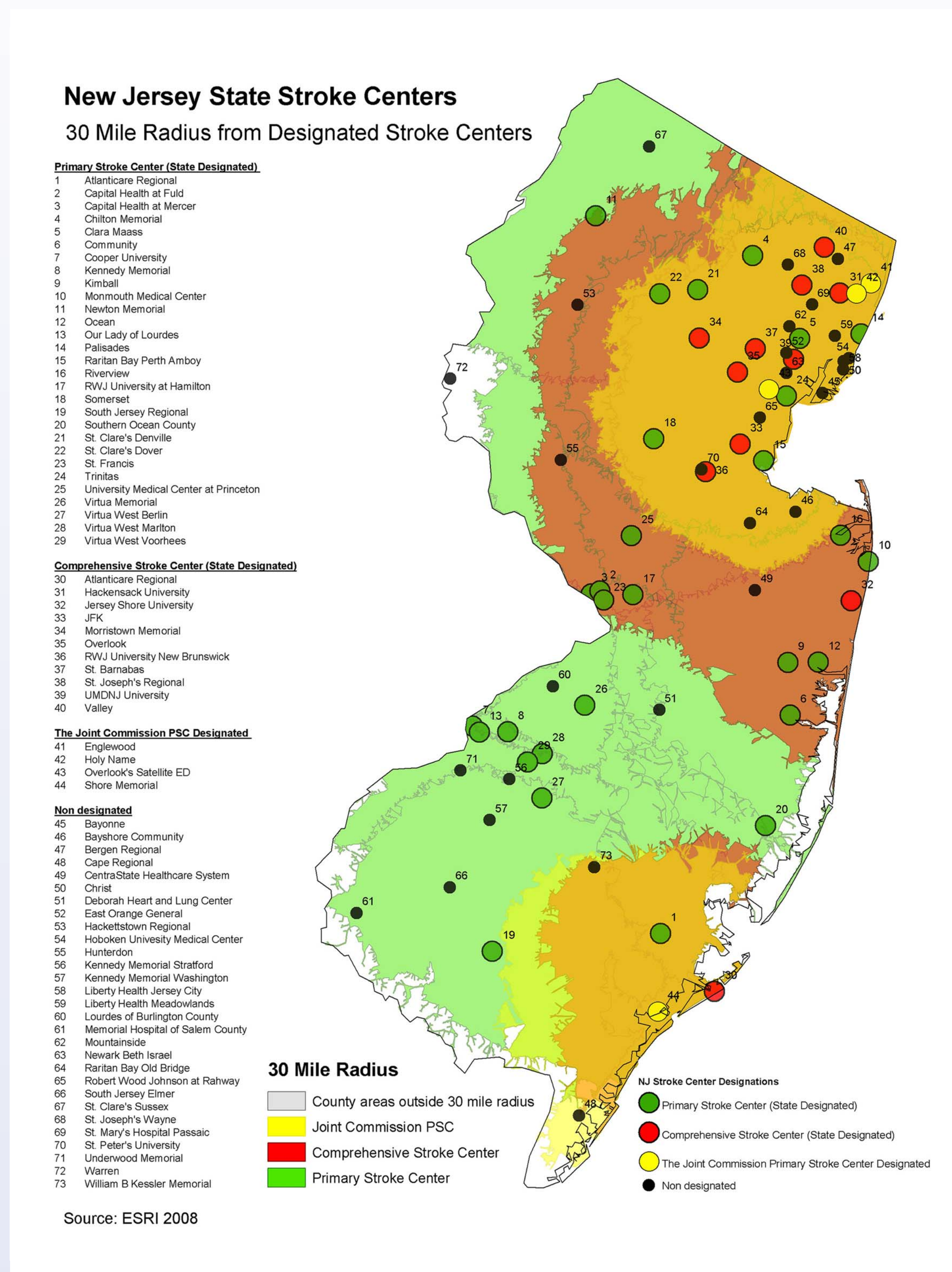


FIGURE 1. MAP OF COVERAGE BY PRIMARY AND COMPREHENSIVE STROKE CENTERS IN NEW JERSEY, COURTESY OF THE AMERICAN HEART ASSOCIATION

The assistance of the following NJDHSS personnel is gratefully acknowledged:
Markos Ezra, PhD, Emmanuel Noggoh, MS, John Gontarski, MCRP, Cynthia Kirchner, MPH

To accelerate the process of center development, the Act created a grant process providing up to \$250,000 in matching funds per hospital with an emphasis placed on capital equipment and infrastructure. A total of 86 grants were awarded in 2005 and 2006 where 39 were made in Round 1 and 47 were made in Round 2. The average award was \$69,767. Most of the Round 2 grants were made to the same hospitals that received grants in Round 1

TABLE 1: START-UP GRANTS

Round	Primary Applicants	Primary Awards	Comprehensive Applicants	Comprehensive Awards
1 (2005)	29	\$2,400,900	10	\$599,100
2 (2006)	37	\$2,390,338	10	\$609,662

As of September 17, 2008 there were 72 acute care hospitals in NJ. As of the same date, 44 hospitals had applied for designation, 30 hospitals were designated as primary stroke centers and 11 as comprehensive stroke centers. Three applications for primary stroke center designation are being reviewed. Three hospitals are Joint Commission accredited as primary stroke centers but do not yet have state designation.

TABLE 2: STATE-DESIGNATED AND JOINT COMMISSION-ACCREDITED STROKE CENTERS IN NEW JERSEY 2004 - 2008

Year	State Primary	State Comprehensive	JC Primary
2004	0	0	1
2005	0	0	4
2006	0	0	9
2007	12	9	19
2008	29	11	29

The state's Stroke Advisory Panel has made recommendations for a comprehensive stroke registry. The recommendations are modeled after the Coverdell registry and include all of the Joint Commission stroke metrics as well as measures of neuro-endovascular volume and morbidity, NIH Stroke Scale (NIHSS) on admission and Modified Rankin Scale (MRS) on discharge, secondary complications of stroke, clinical trials volume, and use of rehabilitation services.