Access to Appropriate Services for High Risk Neonates in New York State

Division of Family Health
New York State Department of Health

Perinatal Regionalization in New York State

- Perinatal Regionalization
  - Infrastructure for quality improvement
- Statewide Perinatal Data System
  - Real-time, clinically relevant data for quality improvement and public health surveillance
- Regional Perinatal Forums
  - Identify and address regional public health issues related to maternal and child health

Regional System in New York State

- Established 1985 based on *neonatal* levels of care
- Major changes in hospitals' capacity
  - Availability of highly trained personnel
  - Medical and technological advances
- Major changes in health care system
  - Hospital networks
  - Managed care

Updating the Regionalized System

- New standard of care: AAP/ACOG Guidelines for Perinatal Care
- I, II, III → Basic, Specialty, Subspecialty
- *Perinatal* standards for maternal and newborn
- Re-designation of hospitals to reflect current capabilities
- Revision of state regulations to reflect changes in system since 1985 and a *perinatal* focus
  - Revise hospital code (405.21)

    New Part 721 outlining Perinatal Regionalization *System*
    - Specific requirements for each level
    - Provider credentials
    - Types of patients cared for
    - Patient transfers

System of Regionalized Care

- Perinatal regionalization is an organized system of care centered around a Regional Perinatal Center (RPC) affiliated with lower levels of hospitals in a network
- Hospitals designated as one of 4 levels based upon ability to provide care
  - Level 1 – normal low risk mothers and newborns
  - Levels 2 – moderate risk mothers and newborns (must have specialty care/NICU)
  - Level 3 - high risk mothers and newborns (subspecialty care/NICU)
  - RPC – highest risk mothers and newborns (subspecialty care/NICU), also provide consultation and support, maternal and newborn transport, education and quality of care in affiliated hospitals.
- System ensures that mothers **and** neonates have timely access to the appropriate level of care.

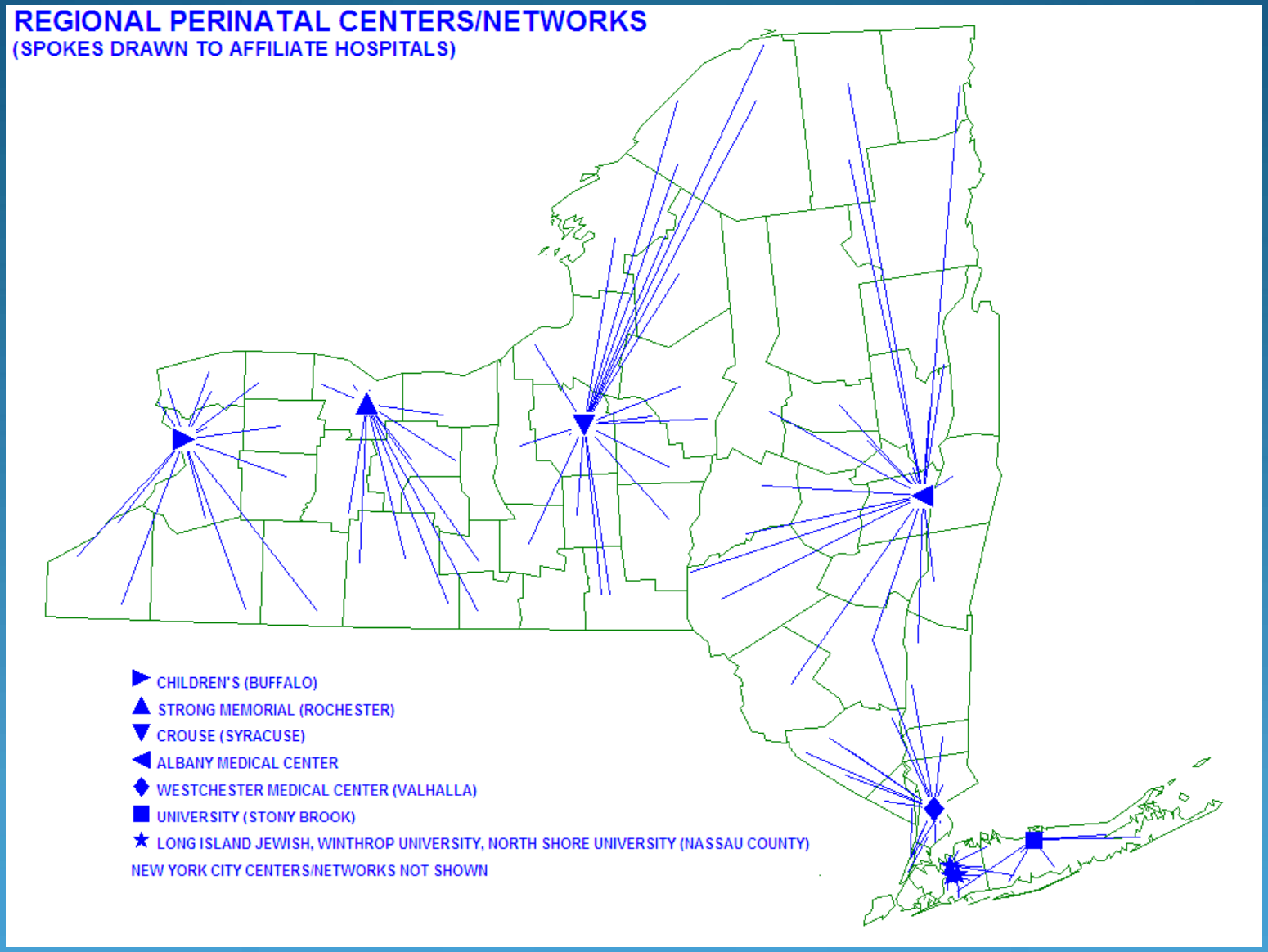
Requirements for Regional Perinatal Centers

- Tertiary hospital or combination of tertiary hospitals (Most are major academic medical centers or affiliated)
- Perinatal network – 8,000 births in network of perinatal affiliates
- Ensure access to neonatal cardiac surgery
- Highly specialized services
- Initiate transport within 30 minutes
- Perinatal research capability

Requirements for all Birthing hospitals

- Ability to identity high risk mothers and infants
- Affiliations and transfer agreements with higher and lower level hospitals Affiliation with regional perinatal center for quality improvement
- Capable of neonatal resuscitation; availability of qualified personnel; immediate access to lab and blood services; emergency anesthesia, sonograms, radiology

RPC Network in New York State



RPC Quality Improvement Role

- RPCs required by regulation to assume oversight of QI in their network
- Department contracts with RPCs to perform this function (award range from $100,000 to $400,000 based upon affiliates and births)

- Affiliation agreements worked out between affiliates and RPCs within general guidelines, including specifics of QI oversight which includes:
  - Care consultation
  - Site visits/training/grand rounds to affiliates on topics of interest
  - Participation in qi committee
  - Review of sentinel events –maternal and newborn fatalities, morbidity other than natural course of disease or illness, nosocomial infections, newborn high risk procedures
  - Review of hospital data
  - Recommendation on ways to improve care in affiliates

Perinatal Hospitals

- Currently are 138 perinatal hospitals in New York State including:
  - 16 Regional Perinatal Centers (RPCs) consisting of 18 hospitals
  - 36 Level III hospitals
  - 25 Level II hospitals
  - 59 Level I hospitals

Statewide Perinatal Data System (SPDS)

- Internet based data submission and retrieval system.
- Originally designed to provide near-real time information for hospitals for quality improvement.
- Now used for vital records (birth registration) reporting and Medicaid newborn enrollment, as well as surveillance and quality improvement
- Modularized approach; current modules completed include core which includes vs and qi elements and NICU module
- Hospitals have access to case specific, identifiable information of patients within their own facility
- RPCs have access to de-identified data from their affiliate hospitals to provide quality of care oversight and consultations in their regions
- Implemented upstate on 1/1/04; NYC required to implement 1/08

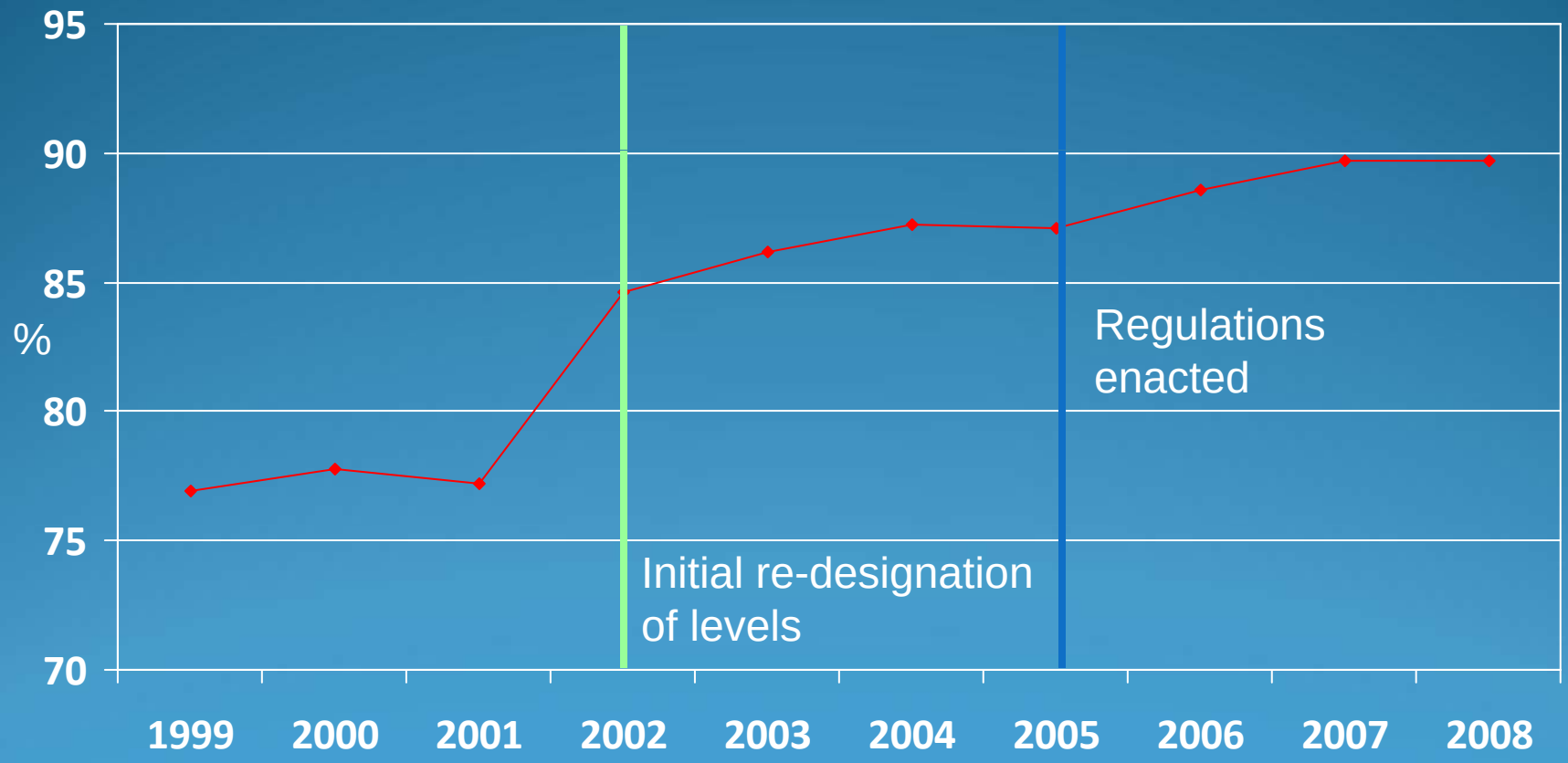
MCHB Performance Measure #17

Very Low Birthweight Infants Delivered at Appropriate Level Facilities

NYS Performance Measure:

- **Indicator:** Percent of very low birth weight (VLBW) births (<1500g) delivered in tertiary care or above hospitals
- **Numerator**: Number of VLBW babies born in tertiary care facilities in a given year
- **Denominator**: Total number of VLBW babies born in a given year
- **2008 Indicator of Performance:** 89.7% of VLBW babies born in facilities for high risk deliveries

Changes to this measure over time:



Activities to improve this measure:

This is an ongoing priority, addressed via multiple means, including:

- Revitalizing the system of Perinatal Regionalization in NYS within the past few years, to ensure care appropriate to the needs of *both the mother and the baby*.
  - Ensuring that all hospitals received designations appropriate to their level of services: Level I (Basic); Level II (Intermediate, with NICU); Level III (Care for most complex cases); and Regional Perinatal Centers (Level III plus QI and oversight responsibilities for network)
  - Infrastructure for quality improvement

Perinatal Regionalization (cont.)

- Regional Perinatal Centers (RPCs)
  - Coordination of transfers
  - Subspecialty consultation to lower level hospitals
  - Quality oversight and consultation
  - Assistance with data analysis
- Perinatal regionalization system supported by regulations governing hospitals, e.g., minimum # births per RPC network, criteria on transfer of babies, etc.
- Regional Perinatal Forums (Takes regionalization beyond the hospital facility, to the community)
  - Identify and address regional public health issues related to maternal and child health (includes a more preventive focus).

Other ways to ensure this goal is being met:

- Monitor the QI variable on the Statewide Perinatal Data System that requires explanation of births to infants <1250g at less than a Level III hospital (currently, most of these deliveries appear to be emergencies not amenable to transport)
- Looking at trends and differences in mortality among VLBW infants
- Found a decrease in mortality rates among VLBW infants who are delivered in appropriate facilities (Level III or RPC hospitals)

Improving Birth Outcomes

- DFH is pursuing review and analysis of the SPDS Core and NICU Module data
  - Review and validation of statistics provided in standardized data reports
  - Assessment of data submission quality by perinatal region and level
  - Evaluating key fields required for linking of birth and neonatal data with other vital statistics data
- Strengthening the partnership with RPCs to improve quality
  - Quality improvement grants to RPCs
  - Collaborative upcoming effort with NICHQ

Improving Birth Outcomes

- Disparities continue to persist in perinatal health care and birth outcomes
- Promote preconception health
- Strengthening home visiting services
- Comprehensive standards for all Medicaid prenatal providers
- Regional perinatal forums

Difficulties/challenges faced:

- Limited funding, resources and expertise
- Sharing of perinatal data obtained from our statewide perinatal data system, due to concern for confidentiality of information
- New York City is a separate Vital Records district
- Ensuring data consistency and accuracy
- Difficulty involving the obstetric community

Key Partners

- Neonatologists
- Maternal-Fetal Medicine Specialists
- Obstetricians
- Nursing staff
- Hospital administrators
- Perinatal Network Data Coordinators
- Other DOH (Vital Records, OHIP, OHSM)
- March of Dimes
- Professional organizations (e.g., ACOG, AAP)
- Hospital associations
- Community partners