

## Perinatal Regionalization - Past Performance

### *Evaluation of the Status and Effectiveness of Regionalization in Virginia*

Regionalization of perinatal services was initiated in Virginia during the 1970's to help insure that all high risk mothers and babies were identified and received optimal care appropriate to their needs. The Commonwealth of Virginia witnessed steady and substantial improvement in both the processes and outcomes of care following the establishment of seven perinatal regions in 1978. The percent of low birthweight deliveries occurring in tertiary centers increased dramatically, and the infant mortality rate dropped to within one percentage point of the national rate. Problems remained, however, especially during the first month of life. Early neonatal mortality was about 15% higher than the national average, and late neonatal mortality exceeded the U.S. rate by 25%.

This study was designed to encompass both quantitative and qualitative analyses of regionalization in Virginia and to offer recommendations for future directions based on study findings. NPIC/QAS staff investigated all components of regionalization, including risk assessment, provision of emergency care, consultation, transportation, systems management, education/outreach, data collection/evaluation, and research/outcome surveillance/effectiveness evaluation.

The evaluation had three primary components; a quantitative analysis which focused on the effectiveness of the regionalization processes, outcome study which measured Virginia vital statistics data and an obstetrical facility survey. The second study component was qualitative in nature and focused on the status of regionalization. The structure, process, and environment of regionalization in all seven perinatal regions in Virginia were examined through a series of case studies. The third component was a provider survey of individual obstetricians, family practitioners delivering OB care, as well as health department prenatal clinics. This survey was designed to focus on barriers to the identification and referral of high risk mothers.

### *A Study to Identify Financial Support for the New Jersey Regional Program*

The Robert Wood Johnson Foundation (RWJF) expended \$8.4M over four years to support seven perinatal regional consortiums in their attempt to improve both primary and referral perinatal care. Over the course of three years these programs became viable entities that significantly influenced the organization and quality of perinatal care provided in the state. The RWJF contracted with the National Perinatal Information Center/Quality Analytic Services (NPIC/QAS) to study approaches to maintain the fiscal and program viability of these regional consortiums after Foundation funding ended.

NPIC/QAS assisted these regional programs in identifying appropriate strategies and sources of funding to continue their work. To accomplish this task NPIC/QAS examined in some depth a variety of options and recommended one or more options as appropriate to all seven regions and/or specific regions.



NPIC/QAS conducted both quantitative and qualitative studies that provided sufficient information to develop these recommendations for the long term support of these seven regional consortiums.

### ***Consultation on Perinatal Regionalization***

The State of New Jersey, as part of its initiative to improve perinatal care, reviewed and revised the Perinatal Regional Plan. It established a special Perinatal Technical Advisory Committee (PTAC) to work on this revision. The NJDOH contracted with the National Perinatal Information Center/Quality Analytic Service (NPIC/QAS) to assist the staff and the PTAC in this endeavor.

NPIC/QAS provided the NJDOH staff with extensive material on regionalization that included all documents and references used in prior NPIC/QAS studies. NPIC/QAS consultants also worked with NJDOH staff to review and revise documents generated for the PTAC.

NPIC/QAS, as part of the contract, submitted a study that incorporates national perspectives in three broad areas of concern. They were:

- **Regionalization itself and the changes related to regional programs in other areas of the country.**
- **Reimbursement and the relation it has to these changes.**
- **Information and quality assurance as requirements for any successful regional program.**

Finally, NPIC/QAS staff worked with the PTAC in their deliberations and reviewed the first draft report presented for public comment by the Department of Health.

### ***Impact of the Changing Health Care Environment on Perinatal Regionalization***

This project examined how factors in the health care environment affected the delivery of perinatal care

A case-study methodology examined regionalization in six diverse cities and explored the environmental factors that both promoted and impinged upon perinatal regionalization. Based upon findings from the case-study analysis, a report was generated which described current strengths and weaknesses of perinatal care.

A resulting monograph was used as the basis for a conference held in Newport, RI, in June 1988 entitled "*Perinatal Regionalization Revisited.*" This conference involved key leaders who responded to the study findings, and after two days of workshops, recommended that a new national Committee on Perinatal Health be organized to anticipate the needs of perinatal care in the 1990's. The March of Dimes convened such a group in 1991.



### ***DRGs and Their Impact on Perinatal Regionalization***

This study examined how the DRG reimbursement system as designed by the Health Care Financing Administration for Medicare patients would (if implemented) affect the operation of perinatal centers and impact on regionalization. The study examined a stratified random sample of tertiary hospitals that reflect the size and teaching intensity of tertiary centers nationally and a matched sample of hospitals that are not tertiary centers. The analyses were aimed at identifying answers to the following questions:

- ***What is the financial impact of the DRG model on tertiary centers compared to non-tertiary hospitals?***
- ***If there are financial problems, are they attributable to the grouping scheme?***
- ***Finally, what solutions to the problems identified make sense in a regionalized environment?***

Findings concluded that the DRG Prospective Payment System (PPS) model, as it would currently operate, causes losses in obstetrical cases and gains for the neonatal cases. The gains are the result of poor weight calibration and overpayment in three high risk neonatal DRGs. The overpayments must compensate for very large losses in the tertiary facilities for high risk care caused by both inadequate case-mix control and weights that are too low. Because of the inequities identified, we explored a new method to refine the neonatal DRG reimbursement approach using birthweight and DRG's.

