Report of the
Perinatal and Pediatric Care Task Force

New Jersey Department of
Health and Senior Services

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Background on Task Force

In October, 2004 the New Jersey Department of Health and Senior Services (DHSS) convened the Perinatal and Pediatric Care Task Force to review the current regulations and service system in NJ and to make recommendations regarding any potential changes to reflect recent research findings, current clinical practice guidelines and technological advances. Specifically, the charge to the Task Force was as follows:

"*Given that:*

- *outcomes for newborns and mothers, while improving, remain at lower than optimal levels;*
- *hospital-based perinatal services in New Jersey have changed in recent years, with the number of hospitals offering such services declining, while those that continue to do so seek to provide higher intensity services; and*
- *perinatal and neonatal/infant care require large expenditures of resources, with concomitant great benefit for individuals and society as a whole;*

it is necessary now to review the regulatory structure governing the hospital-based perinatal and neonatal delivery system in New Jersey, in order to assure that it is consistent with the latest and best evidence about how outcomes can be improved by the delivery system.

Further, given that:

- *hospital-based pediatric care has changed markedly, with a decrease in general pediatric hospitalization, and a concomitant increase in the proportion of complicated pediatric inpatient cases;*
- *pediatric care has de facto become more regionalized among NJ hospitals; and*
- *although ideally there should be a natural progression from perinatal and neonatal/infant care to the care of older children within the hospital setting, traditional categories for disciplines and licenses may be challenged by newer clinical developments, such as in utero surgery;*

now is an appropriate time for a review of the planning and regulatory structure governing pediatric inpatient care in New Jersey and its relation to prenatal, perinatal, and neonatal/infant care, in order to unambiguously promote a statewide system of high quality hospital-based perinatal and pediatric services.

Thus, the Department is creating the Perinatal and Pediatric Care Task Force. The Task Force will, within one year of its formation,

- *Examine the impact of changes in technology and clinical practice standards on the organization and delivery of hospital-based perinatal, neonatal and pediatric services;*

- *Assess New Jersey's current planning and regulatory requirements for the provision of the range of hospital-based perinatal, neonatal and pediatric services in light of the changes in technology and practice, with special emphasis on the issues of quality and access to services;*

- *Review the regulatory structure and organization of the system of hospital-based perinatal, neonatal, and pediatric services in other states, either demographically similar to New Jersey, or considered to be leaders in provision of high quality, efficient care; and*

- *Develop recommendations for public policies regarding appropriate hospital-based perinatal, neonatal, and pediatric services"*

During the course of its work, the Task Force determined to focus on the following specific issues related to Certificate of Need (CN), and to recommend that smaller groups be formed subsequently to review perinatal and pediatric licensure standards. Regarding CN, the taskforce was asked to address three specific questions:

1) Does the evidence support maintenance of Certificate of Need (CN) in its current form, i.e. use of consortia-generated data to identify "need" for more perinatal service providers at a higher service designation level?
2) Does the evidence support prohibiting currently licensed providers' ability to add (at will) neonatal bassinets to address increasing demand levels? Thus, providers must compete within their consortia to increase their capacity and may only increase capacity to levels of need specified by the DHSS?
3) Does the evidence support the current 5-level tiering of perinatal service designation levels as found in CN and licensure regulations, from birthing center to Regional Perinatal Center? Or may some of these categories be consolidated?

In forming the task force, DHSS worked with the regional Maternal and Child Health Consortia (MCHC) to develop a list of potential taskforce members.[i] Task force members represented a variety of stakeholders, including hospitals, consumer advocates, emergency medical services, and health care associations. DHSS set a timeframe of ten months for task force activities and asked potential members to participate in a total of seven meetings. The meetings were chaired by Deputy Commissioner of Health and Senior Services, Marilyn Dahl, and included Assistant Commissioner, Celeste Andriot Wood, from DHSS Division of Family Health Services along with other members of the department. In addition, the Rutgers Center for State Health Policy (CSHP) was engaged to provide research and technical support to the group.

Relevant to the task force charge, meeting agendas were designed to provide members with information about clinical practice research, other states with and without a Certificate of Need process, NJ's perinatal and pediatric service regulations, and NJ's birth and pediatric outcome data. The general meeting format was the presentation of information, followed by group discussion of its implications for the task force work. A website, http://www.cshp.rutgers.edu/peripedi_taskforce/index.htm, was created to hold all meeting materials and act as a reference for task force members. The final three meetings focused on discussing the specific questions to be resolved by the taskforce and to develop recommendations for NJ DHSS regarding potential CN and licensure changes.

Information Reviewed by Task Force

Clinical Practice Literature

The literature during the last decade shows that the number of Neonatal Intensive Care Units (NICUs), NICU beds, and neonatologists have all increased dramatically in the United States,[1] while until 1995, the infant mortality rates have steadily declined. These declines have been attributed to improvement in survival of very low birth weight babies .[2] Research indicates that the existence of a tiered hospital system, where the highest risk cases are directed to a tertiary center, and where transport plans are well organized and executed, results in better birth outcomes.[3] The availability of highly

[i] MCHC are nonprofit organizations licensed by the Department and responsible for monitoring maternal and child health in specific regions of the state.

skilled staff may also influence birth outcomes. For example, in one study, the availability of neonatologists in a region was found to be a correlate of mortality but no consistent relationship between the number of NICU beds and mortality was identified. [4] Overall, higher level NICUs, those equipped to handle the most complicated maternity and neonatal cases, have better outcomes for very low birth weight babies. [5] Related to this issue, The American Academy of Pediatrics, Committee on Fetus and Newborn recommendations for the number and definitions of hospital levels of neonatal care were reviewed and seriously considered by the task force.[6] Some evidence exists that the time of day of birth relates to outcomes, with babies born at night and on the weekends having poorer outcomes.[7,8,9] This may indicate that adequate, high-quality staffing of nurseries (by both nurses and doctors) must be maintained at all times.

The relationship between volume and birth outcomes was not as clear in the literature. The group was asked to look at this issue to determine if there is support in the research for regionalization, not just stratification, of perinatal services, since a need for regionalization to maintain minimum volumes is one of the rationales for maintaining CN requirements. Some studies link low-volume NICUs to higher mortality, while others find no relationship. Overall, the literature suggests that a hospital's historical mortality rates are a better and more consistent predictor of birth outcomes at a given hospital than its volume. [10] The research also shows that there are large and persistent disparities in the quality of NICU care across hospitals. [11]

For pediatric intensive care, the most significant trend during the 1990's was the growth in the number of PICU beds which outpaced the rate of growth for the pediatric population. [12] The research literature shows that mortality is lower in hospitals where specialty pediatric care is available and that volume is positively related to outcome in pediatric intensive care. [13,14] As with maternity and neonatal care, studies emphasized that a well organized regional transport system is critical so children can be moved quickly to the facilities best equipped to treat them.[13]

In response to the literature review, some task force members were surprised that the relationship between volume and positive outcomes does not emerge as strongly in the newborn care literature as in literature on cardiac surgery. Members noted that a efficient transportation system is essential in providing maternity and newborn care.

Finally, in reaction to the findings that quality varies widely across hospitals, the potential of using hospital perinatal/pediatric outcome indicators to monitor hospitals was discussed.

Selected State Comparisons of Certificate of Need and Licensure Regulations

A comparison of Certificate of Need and licensure regulations related to perinatal and pediatric hospital based services across eight states was presented: California, Connecticut, Florida, Illinois, Massachusetts, New Jersey, New York, and Pennsylvania. Profiles for each state included the state's demographic data, hospital system information, perinatal statistics, and Certificate of Need and hospital licensure regulation summary (see Table 1).

Table 1: Overview of States' Hospital Perinatal Structure

	NJ	CA	CN	FL	IL	MA	NY	PA
CN Process	YES	NO	YES	YES	YES	YES	YES	NO
Levels of Care	**5**[1]	**3**	**1**	**3**	**5**	**4**	**4**	**3**
Total # of Birthing Hospitals	64	259 Maternity 263 w/ neonatal services	29	98	140	Requested, not received	149	128
Number of Hospitals by Level of Care	14 RPC 6 Intensive 35 Intermediate 9 Basic	Requested, not received	NA	27 Level 3, (11 are RPCs) 33 Level 2 38 Level 1, (w/o NICU)	10 Level 3 plus 15 Level 3 23 Level 2 plus 73 Level 2 19 Level 1	Requested, not received	19 RPC 34 Level 3 27 Level 2 69 Level 1	28 Level 3 36 Level 2 64 Level 1
Number of NICU Beds	336	Requested, not received	50	468 Level 3 872 Level 2	784	Requested, not received	Not Available	466 Level 3 303 Level 2
Infant Mortality (99-01)	6.4	5.4	6.2	7.1	8.2	4.9	6.2	7.2
2003 % LBW	8.1	6.6	7.5	8.5	8.3	7.6	7.9	7.9
Hospitals offering pediatric care	60	Requested, not received	20	Not licensed separately	123	Requested, not received	Requested, not received	77
Pediatric Beds	1235 (992 maintained)	Requested, not received	410	Not licensed separately	2363	Requested, not received	Requested, not received	1048
PICU Beds	91 (46 approved)	Requested, not received	Not licensed separately	285 beds across 27 hospitals, but not licensed separately	Not licensed separately	Requested, not received	Requested, not received	Not licensed separately

1 Includes Level 1: Birthing Centers

Six of the states (Connecticut, Florida, Illinois, Massachusetts, New Jersey, and New York) have a Certificate of Need program in operation. California terminated its CN program in 1987, and Pennsylvania allowed its program to sunset in 1996. The presence or absence of CN did not have a consistent relationship with state infant mortality rates. Of the two states with the lowest average infant mortality (1999-2001 deaths per 1,000 births average), Massachusetts (4.9) has a CN program, while California (5.4) does not. Likewise, among the states with the highest average infant mortality (1999-2001), Illinois (8.2) has a certificate of need program while Pennsylvania (7.2) does not. Since CN programs in California and Pennsylvania have ended, the infant mortality rates in these states have not increased. In fact, California's infant mortality rate has decreased significantly since their CN program ended.

The hospital licensure regulations in these states stratify hospitals based on the level of service the hospital can provide and/or by the birth weight/gestational age of babies or risk factors in mothers. The number of designated levels ranged from 3 to 5 across the states. Although no uniform stratification level definitions were used, there are similarities across states in the specifications for various levels. For example, Illinois regulations specify that Level II, Intermediate perinatal hospitals, can accept babies 32 weeks or older or above 1500 grams, while New Jersey's licensure standards indicate that CPC-Intermediate hospitals can accept babies greater than 1499 grams. Several states' regulations reference the American Academy of Pediatrics (AAP) guidelines and have incorporated pieces of the Academy's recommendations, although none have adopted their complete six-level system for stratifying hospitals, ranging from basic through subspecialty. AAP has provided uniform definitions of each level's capabilities, and would like to see hospitals nationwide adopt this model. [6]

Regarding regionalization, there was no consistent approach used to organize perinatal services across states. Several states did not utilize state-defined or regulated "perinatal" regions (California, Connecticut, Florida, and Pennsylvania). Of the states with designated regions, most understood the purpose of having regions as a means to promote coordination and effective transport plans between the birthing hospitals in each region. Despite the existence of CN programs with defined regions, in practice, the type and location of hospitals providing various levels of service have not been restricted. For

example, in more than one state there are two or more subspecialty hospitals operating in the same region. It appears the focus of CN seems to be on creating a high quality system for getting mothers and babies to appropriate facilities. At the time of our review, New York was undergoing an effort to promote perinatal regionalization through mandating affiliations between hospitals and participation in a statewide perinatal data system (SPDS).

Due to the inconsistent relationship between CN and birth outcomes in the states examined, this review did not clearly yield a best practice model that should be replicated in New Jersey. Overall, these states have designed tiered perinatal care systems which stress clear networks and coordination between hospitals for the purpose of transporting mothers and babies to the appropriate level of care.

In response to the state comparisons, task force members discussed the differences in infant mortality across the states. Some members stressed that comparing infant mortality across states can be misleading because the rates do not control for population demographics which vary substantially from state to state. Several members mentioned that California and Massachusetts have focused resources on improving access to and quality of prenatal care, which has contributed to their low infant mortality rates. Some members suggested that New Jersey should examine ways of improving our system for reaching and providing prenatal care to pregnant women. Given the state comparison information and the findings from the perinatal and pediatric literature review which pointed to hospital capability as an important factor in outcomes, some task force members suggested that hospitals be required to prove their ability to provide perinatal/pediatric services at the requested level, rather than demonstrate need for new or expanded services in their area. This could be done through an expedited CN process or licensure. This change would eliminate the current requirement for DHSS and the consortia to project a need for additional neonatal intermediate or intensive bassinets before accepting CN applications to expand or change levels of service offered by hospitals. Many task force members felt the current approach has not resulted in an accurate estimation of need in the state's regions.

Summary of New Jersey Regulations

Currently, both certificate of need and licensure regulations pertain to hospital-based perinatal or pediatric services: N.J.A.C. 8:33, Certificate of Need, Application and Review Process, N.J.A.C. 8:33C, Certificate of Need and Licensure: Regionalized Perinatal Services and Maternal Child Health Consortia, and N.J.A.C. 8:43G, Hospital Licensing Standards, specifically the subchapters on obstetrics (subchapter 19), pediatrics (subchapter 22), and children's hospitals (subchapter 22A). These regulations provide for 5 levels of perinatal services, four of which are hospital-based:

- Community Perinatal Centers (CPCs)
    - Birth Center - Ambulatory care facility can accept low-risk maternity patients and neonates >2,499 grams, or at least 37 weeks in gestational age, requiring less than 24 hour stay after birth
    - Basic - General acute care hospital, can accept low-risk maternity patients and neonates >2,499 grams, or at least 36 weeks in gestational age
    - Intermediate – can accept complicated maternity cases and neonates >1499 grams, or at least 32 weeks in gestational age
    - Intensive – can accept complicated maternity cases and neonates >999 grams, or at least 28 weeks in gestational age
- Regional Perinatal Center (RPCs)
    - General acute care hospital, can accept the highest risk mothers, maternal-fetal transports, and neonates (less than 999 grams)

The hospital licensing standards specify the requirements for general pediatric services, which any general hospital may offer, as well as for pediatric intensive care services, for which a hospital must obtain a CN. There are no specialized CN regulations for pediatric intensive care, so this service is subject only to the generic CN provisions of N.J.A.C. 8:33. The hospital licensure standards as well as the CN rule for perinatal services require children's hospitals to offer the highest level of perinatal services. The licensure standards also require children's hospitals to offer pediatric intensive care, along with other requirements, such as offering graduate medical education in pediatrics.

CPC-Intermediate or higher level perinatal services, as well as PICU and children's hospital services are subject to a CN process. Applications for CNs may not be submitted at will, but only when DHSS finds a regional need for new or expanded services and issues a call for CN applications. In the case of requests for intensive bassinets, a specific formula is mandated by the regulations for calculating bassinet need in a consortium's planning area. For intermediate bassinets, each MCHC develops a methodology and projects need in its area. In the case of PICU beds, there is no need methodology specified by regulation.

In response to the call, each applicant is required to supply evidence of their ability to attract a minimum volume of maternity/neonatal or pediatric cases, as appropriate, in addition to other CN requirements found in both N.J.A.C. 8:33 and N.J.A.C. 8:33C. In addition, N.J.A.C. 8:33C contains the CN requirements for the Maternal and Child Health Consortia. The MCHC are required to collect data on the health status and needs of women and children in their designated region. Based on analysis of this information, each MCHC develops a Regional Perinatal and Pediatric Plan that addresses perinatal and pediatric service delivery, quality, education, transport systems, and infant follow-up for a distinct geographic region. MCHC are also required to submit particular perinatal statistics for the hospitals in their region to DHSS.

New Jersey Perinatal Information

The task force reviewed the location of perinatal and pediatric services in NJ, the state's infant and pediatric mortality and morbidity trends, and trends in hospital admissions for these populations. Information was derived from DHSS data on current NJ licensed facilities, 2003 hospital discharge data, and infant mortality

As of the end of 2004, New Jersey had 64 hospitals licensed to provide maternity and newborn care. Fourteen facilities were licensed as RPCs, 6 as CPC-Intensive, 35 as CPC-Intermediate, and 9 as CPC-Basic (See Appendix C for map of hospital locations). Table 2 shows the number of hospitals by level of care within each MCHC region. (Note that MCHC regions are only roughly based on county boundaries, and that hospitals in some parts of the state have a choice of which consortium to join.)

Table 2: Distribution of Hospitals by level of care by MCHC (2004)

MCHC	RPC	CPC – Intensive	CPC – Intermediate	Basic
Central	3	0	5	0
Gateway-Northwest	4	1	8	2
Hudson	1	0	3	2
Monmouth and Ocean	2	0	5	1
Northern	2	2	6	2
Southern	2	3	8	2
Total # of Hospitals by Level	**14**	**6**	**35**	**9**

Table 3 shows the number of beds licensed for each level of care across the state as of January 2005. The current numbers for intermediate and intensive beds, as of this printing, are available in Appendix D. For obstetrics/gynecology and pediatric beds, considerably more beds were licensed than actually maintained by the hospitals.

Table 3: Number of Beds Licensed by Level of Care across the State (January 2005)*

Ob/Gyn Beds	Intermediate Bassinets	Intensive Bassinets	Pediatric Beds	Pediatric Intensive Care Beds
1714 Licensed (1654 Maintained)	433 Licensed	366 Licensed	1235 Licensed (992 Maintained)	91 Licensed

*These are the numbers reviewed by the task force. See Appendix D for the current intermediate and intensive numbers.

In terms of the regional distribution of neonatal intensive care bassinets, only half (n=11) of the counties contained hospitals with neonatal intensive care units (NICU). Of the counties with NICU units, Essex and Camden counties had the most NICU beds at 97 and 57 respectively. Ten counties contained no NICU beds: Burlington, Cape May, Cumberland, Gloucester, Hunterdon, Ocean, Salem, Somerset, Sussex, and Warren. Overall, the Northeastern region of the state has the majority of the NICU beds, while the far southern region has the least. However, CNs were issued in 2004 for intensive beds in hospitals in Cumberland (6 beds), Ocean (8 beds), and Gloucester (6 beds) counties.

The regional pattern is similar for licensed intensive pediatric beds with Essex County having the most (31) while the majority of the counties, especially in the southern region, having none. Table 4 shows the distribution of NICU and PICU beds within each county. This generally corresponds to the population density in these regions.

Table 4: NICU/PICU/Pediatric Bed Rates by County (January 2005)

County	# of NICU Beds	Rate per 1,000 Births (2002)	# of PICU Beds	Rate per 10,000 Children under 18*	# of Licensed Ped Beds	Rate per 10,000 Children under 18*	# of Maintained Ped Beds	Rate per 10,000 Children under 18*
Atlantic	7	1.97	0	-	66	10.34	34	5.32
Bergen	21	1.99	6	0.30	124	6.11	114	5.61
Burlington	0	-	0	-	30	2.82	30	2.82
Camden	57	8.45	8	0.59	74	5.44	59	4.33
Cape May	0	-	0	-	0	-	0	-
Cumberland	0	-	0	-	14	3.76	14	3.76
Essex	97	8.01	31	1.50	237	11.45	142	6.86
Gloucester	0	-	0	-	18	2.68	16	2.38
Hudson	15	1.71	6	0.47	126	9.88	91	7.14
Hunterdon	0	-	0	-	10	3.19	10	3.19
Mercer	15	3.29	0	-	67	7.94	58	6.88
Middlesex	41	3.87	20	1.13	109	6.14	118	6.64
Monmouth	29	3.66	6	0.37	76	4.74	76	4.74
Morris	14	2.25	8	0.68	69	5.91	62	5.31
Ocean	0	-	0	-	39	3.82	38	3.72
Passaic	30	3.90	6	0.47	87	6.82	68	5.33
Salem	0	-	0	-	0	-	0	-
Somerset	0	-	0	-	20	2.63	12	1.58
Sussex	0	-	0	-	19	4.72	13	3.23
Union	10	1.32	0	-	33	2.54	33	2.54
Warren	0	-	0	-	21	7.87	4	1.50

*Population numbers are from Census 2000 Summary File 1 (SF1) 100-Percent Data

NJ's infant mortality statistics and other birth outcome trends were also presented to the task force. New Jersey's average infant mortality rate for the years 1998-2001 was 6.5 deaths per 1,000 births, as compared to 7.0 per 1,000 births for the United States. The rates vary widely by county, with Morris county having the lowest average of 3.3 per 1,000 from 1998-2001 and Cumberland county having the highest average of 12.2 per 1,000.

Data was also presented on the number of low birth weight (LBW-less than 2500 grams) and very low birth weight births (VLBW- less than 1500 grams). Over the last 12 years in NJ, the percentages have fluctuated with the number of LBW births in 2002 being just over 9850 and the VLBW being under 1750. The LBW and VLBW birth rates are significantly different by race (with the rate for Blacks being higher than the rates for white, Hispanic, and Asians), but the rates have remained fairly level over the 12 year time period. Table 5 shows the births by licensure level and birth weight.

Table 5: Number of Births (%) by Licensure Level by Birth Weight (UB 2003 Data)

Birth Weight in grams	CPC-Basic	CPC-Intermediate	CPC-Intensive	RPC
100 to 499	10 (0.2%)	55 (0.1%)	12 (0.1%)	99 (0.2%)
500 to 999	11 (0.2%)	83 (0.2%)	50 (0.3%)	603 (1.3%)
1000 to 1499	16 (0.3%)	124 (0.3%)	106 (0.6%)	711 (1.5%)
1500 to 2499	242 (4.2%)	2392 (5.1%)	932 (5.5%)	4189 (9.0%)
2500 +	5540 (95.4%)	44085 (94.3%)	15825 (93.5%)	40964 (88.0%)
Totals	5819 (100%)	46739 (100%)	16925 (100%)	46566 (100%)

The task force also reviewed information on the number of babies with selected diagnoses. This information showed the number of particular diagnoses such as Meconium Aspiration, Necrotizing Entercolitis, Congenital Malformations, and infections in the perinatal period by hospital level and by birth weight. Information on neonatal deaths was also presented. These data were selected to examine the prevalence

of hospitals which were providing care which might be considered out-of–scope for their licensure level. Generally, the data suggested no significant out-of-scope practice issues. However, the task force requested more in-depth analysis. The requested follow-up analysis of birth outcomes provided information on selected high-risk diagnoses, transport of these high-risk infants, and neonatal deaths. The data showed:

- Few babies were born in out-of-scope hospitals,
- Most babies with the selected high-risk diagnoses were born in RPCs,
- For some selected diagnoses, a higher than expected percentage were born in CPC-Intermediate facilities, and
- Most newborns with the selected diagnoses were not transferred to other facilities.

Table 6. Neonatal Death by Level of Care by Birth Weight (UB 2003 Data)

Birth Weight in grams	CPC-Basic	CPC-Intermediate	CPC-Intensive	RPC
100 to 499	3 (60.0%)	38 (57.6%)	9 (22.5%)	75 (21.3%)
500 to 999	2 (40.0%)	10 (15.2%)	20 (50%)	151 (46.5%)
1000 to 1499		3 (4.5%)	1 (2.5%)	23 (7.1%)
1500 to 2499		8 (12.1%)	4 (10.0%)	26 (8.0%)
2500 +		7 (10.6%)	6 (15.0%)	50 (15.4%)
Totals	5 (100%)	66 (100%)	40 (100%)	325 (100%)

With respect to neonatal deaths, 75 percent (325/436) of the neonatal deaths occurred in RPCs (see Table 6). Since RPCs also accounted for 76 (702/923) percent of all infants weighing less than 1000 grams at birth, their share of neonatal deaths is proportionate. Among VLBW babies, 74 percent were born at an RPC (249/335) and only 17 percent (56/335) were born at a non-Intensive level facility. To explore further the deaths in the CPC-Intermediate and CPC-Intensive hospitals, neonatal deaths by birth weight and diagnosis (primary, secondary, and tertiary) were examined. Without case review, it is difficult to tell exactly why these infants died; however, according to our consultant and taskforce members some VLBW births and deaths among these facilities are unavoidable.

In response to the presentation on the number of neonatal bassinets, the task force requested clarification on how the occupancy rates were tabulated for CPC-intensive and CPC-intermediate beds. The task force expressed concern over the interpretation of these measures, due to the way a baby's status may move between the definitions of intensive and intermediate several times in a short period of time and how the hospital reports bed occupancy. There was also a concern about the way "live birth" is defined, so that non-viable babies were being counted as live and skewing mortality rates. The definition is specified in NJ statute, N.J.S.A. 26:8-1, and defines live birth as a baby who "breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles" outside of a mother's body.

Finally, pediatric service data was presented. Using 2003 hospital discharge data, information was compared on pediatric admissions, for hospitals without licensed pediatric beds, hospitals with licensed pediatric beds, and those with licensed pediatric intensive care units (PICU). Again, information was presented for selected pediatric conditions, such as respiratory failure, Diabetic Ketoacidosis, and congenital anomalies. In general, hospitals with PICU beds were treating higher percentages of children with the selected high-risk diagnoses. Moreover, few of these children were being treated in non-pediatric licensed hospitals, again suggesting no significant out-of-scope practice issues.

Final Recommendations

Task force members had been asked to formulate their recommendations on what, if anything, needs to be changed with respect to New Jersey's CN requirements for perinatal and pediatric services.

Neonatal and Pediatric Services

In response to question 1: Does the evidence support maintenance of CN in its current form ? If yes, what are the key factors to be used in determining need and should the Department or the consortia do the need calculation?

The Work Group recommends:

- **Hospitals should not be required to obtain a CN to provide CPC-Intermediate level service with the stipulation that the licensure standards be updated to include performance standards.**

- **Neonatal intensive care units should continue to require a Certificate of Need, as should the establishment of Regional Perinatal Centers.**

- **Pediatric intensive care should continue to require a certificate of need.**

- **There was overwhelming consensus among the Work Group that the licensure standards for perinatal and pediatric services are in need of updating, in order to reflect the latest consensus on clinical standards required to achieve high quality of care; additionally, with the recommendation to remove CPC-Intermediate services from CN, the need for licensure performance standards becomes even more compelling. There was insufficient time for the Work Group to pursue this task, and members of the Work Group also agreed that it would be more effective to convene two smaller follow-up expert groups to work separately on a comprehensive review of the perinatal and pediatric licensure standards. Accordingly, the Work Group urges the Department to convene two such groups in the near future to evaluate and update the licensure standards.**

- **The Department should convene a separate, smaller follow-up work group to develop an outcomes-based system for evaluating hospital performance in delivering perinatal and pediatric services.**

In response to question 2: Does the evidence support prohibiting currently licensed providers' ability to add (at will) bassinets to address increasing demand levels? Thus, providers must compete within their consortia to increase their capacity and may only

increase capacity to levels of need specified by the DHSS? If licensed neonatal intensive care nurseries can add new bassinets without getting Certificate of Need approval, should there be a specified limit to expansion?

Because the task force had decided that intermediate hospitals should be exempt from the CN process, the recommendations on this question apply to intensive bassinets only.

- **Neonatal and pediatric intensive care units should be able to expand their number of bassinets/beds on a limited basis without obtaining CN approval:**
  1) Allow NICU bassinets or PICU beds to be added through a licensure amendment once a quarter, when the previous quarter's occupancy is at or above 85%, such that with the additional bassinets or beds the occupancy rate would be 85%.
  2) The Department should develop a need methodology related to levels of perinatal or pediatric intensive care service that is not based upon bassinet or bed need, but rather on such other factors that would be sensitive to changing demands within a planning region for higher levels of service.

In response to question 3: Does the evidence support the current 5-level tiering of designation levels, from birthing center to RPC? Or may some of these categories be consolidated?

Several members were in favor of adopting the American Academy of Pediatrics definitions of perinatal levels because of the standardization and ability to compare to other states which have also adopted them. The majority of members, however, did not feel this was the best course of action. The following reasons were given for not adopting the AAP model:

- the AAP level definitions were not substantially different from NJ's current structure;
- an additional level might require more maternal/fetal transports that would be difficult to enforce and perhaps increase risks;
- the current structure is operating well, therefore, changing seems unnecessary; and
- there may be unintended consequences of adopting a new level scheme.

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Appendix A

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Appendix B

NJ Department of Health and Senior Services

Perinatal and Pediatric Care Task Force

TASK FORCE CHARGE

Given that:

- outcomes for newborns and mothers, while improving, remain at lower than optimal levels;

- hospital-based perinatal services in New Jersey have changed in recent years, with the number of hospitals offering such services declining, while those that continue to do so seek to provide higher intensity services; and

- perinatal and neonatal/infant care require large expenditures of resources, with concomitant great benefit for individuals and society as a whole;

it is necessary now to review the regulatory structure governing the hospital-based perinatal and neonatal delivery system in New Jersey, in order to assure that it is consistent with the latest and best evidence about how outcomes can be improved by the delivery system.

Further, given that:

- hospital-based pediatric care has changed markedly, with a decrease in general pediatric hospitalization, and a concomitant increase in the proportion of complicated pediatric inpatient cases;

- pediatric care has *de facto* become more regionalized among NJ hospitals; and

- although ideally there should be a natural progression from perinatal and neonatal/infant care to the care of older children within the hospital setting, traditional categories for disciplines and licenses may be challenged by newer clinical developments, such as *in utero* surgery;

now is an appropriate time for a review of the planning and regulatory structure governing pediatric inpatient care in New Jersey and its relation to prenatal, perinatal, and neonatal/infant care, in order to unambiguously promote a statewide system of high quality hospital-based perinatal and pediatric services.

Thus, the Department is creating the Perinatal and Pediatric Care Task Force. The Task Force will, within one year of its formation,

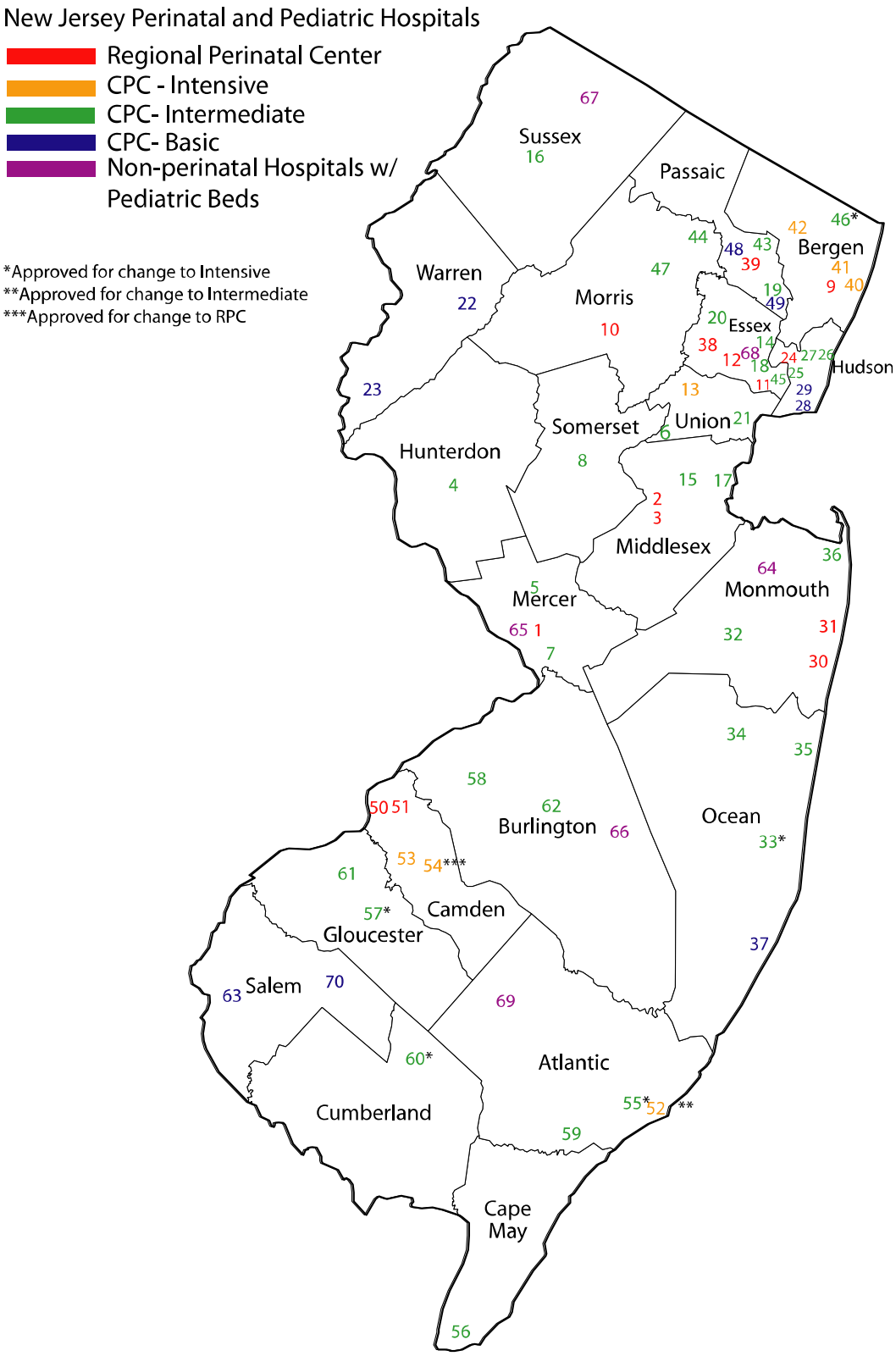
- Examine the impact of changes in technology and clinical practice standards on the organization and delivery of hospital-based perinatal, neonatal and pediatric services;

- Assess New Jersey's current planning and regulatory requirements for the provision of the range of hospital-based perinatal, neonatal and pediatric services in light of the changes in technology and practice, with special emphasis on the issues of quality and access to services;

- Review the regulatory structure and organization of the system of hospital-based perinatal, neonatal, and pediatric services in other states, either demographically similar to New Jersey, or considered to be leaders in provision of high quality, efficient care; and

- Develop recommendations for public policies regarding appropriate hospital-based perinatal, neonatal, and pediatric services

Appendix C


New Jersey Perinatal and Pediatric Hospitals
Regional Perinatal Center
CPC - Intensive
CPC- Intermediate
CPC- Basic
Non-perinatal Hospitals w/ Pediatric Beds
*Approved for change to Intensive
**Approved for change to Intermediate
***Approved for change to RPC
Sussex
Passaic
Bergen
Warren
Morris
Essex
Hudson
Somerset
Union
Hunterdon
Middlesex
Mercer
Monmouth
Burlington
Ocean
Camden
Gloucester
Salem
Atlantic
Cumberland
Cape May

NJ Perinatal and Pediatric Hospitals as of 1/05												
Map Key		LOCATION	COUNTY	LEVEL	OB/GYN BEDS		INTERMEDIATE BASSINETS	INTENSIVE BASSINETS	PEDIATRIC BEDS		PEDIATRIC INTENSIVE CARE BEDS	CHILDREN'S HOSPITAL
					Lic.	Mtn.			Lic.	Mtn.	( ) = approved	
Central MCH Consortium												
1	Capital Health System - Mercer Campus	Trenton	Mercer	5	59	59	15	15	41	41		
2	Saint Peter's University Hospital	New Brunswick	Middlesex	5	77	77	19	35	20	26	6 (2)	X
3	Robert Wood Johnson University Hospital	New Brunswick	Middlesex	5	34	34	5	6	43	38	14	X
4	Hunterdon Medical Center	Flemington	Hunterdon	3	20	20	4		10	10		
5	Medical Center at Princeton	Princeton	Mercer	3	24	24	5		20	11		
6	Muhlenberg Regional Medical Center	Plainfield	Union	3	30	30	7					
7	RWJ University Hospital at Hamilton	Hamilton	Mercer	3	14	14	4					
8	Somerset Medical Center	Somerville	Somerset	3	20	20	6		20	12		
Gateway-Northwest MCH Consortium												
9	Hackensack University Medical Center	Hackensack	Bergen	5	50	50	8 (6)	9 (6)	42	48	6 (9)	X
10	Morristown Memorial Hospital	Morristown	Morris	5	53	44	12	14 (8)	33	34	8	X
11	Newark Beth Israel Medical Center	Newark	Essex	5	32	32	23	46	79	31	29	X
12	University of Medicine & Dentistry of New Jersey	Newark	Essex	5	30	30	24	28	60	43	2 (9)	
13	Overlook Hospital	Summit	Union	4	41	34	5	10 (1)	22	22		
14	Clara Maass Medical Center	Belleville	Essex	3	27	6	7		20	20		
15	JFK Medical Center	Edison	Middlesex	3	28	23	6		22	30		
16	Newton Memorial Hospital	Newton	Sussex	3	17	17	2		13	13		
17	Raritan Bay Medical Center	Perth Amboy	Middlesex	3	15	15	7		24	24		
18	Saint James Hospital	Newark	Essex	3	11	11	4		18	10		
19	PBI Regional Medical Center	Passaic	Passaic	3	16	16	5		10	4		
20	The Mountainside Hospital	Montclair	Essex	3	15	15	4		10	0		
21	Trinitas Hospital	Elizabeth	Union	3	20	20	7		11	11		
22	Hackettstown Community Hospital	Hackettstown	Warren	2	12	12						
23	Warren Hospital	Phillipsburg	Warren	2	15	15			21	4		
Hudson Perinatal Consortium												
24	Liberty HealthCare System, Inc. - Jersey City Medical Cente	Jersey City	Hudson	5	26	26	15	15	26	26	6 (2)	X
25	Liberty HealthCare System, Inc. - Meadowlands Hospital	Secaucus	Hudson	3	22	24	4		26	12		
26	Palisades Medical Center - New York Presbyterian Hospital	North Bergen	Hudson	3	20	20	4		6	6		
27	St. Mary Hospital	Hoboken	Hudson	3	25	15	6 (2)		20	15		
28	Bayonne Medical Center	Bayonne	Hudson	2	10	10			17	17		
29	Christ Hospital	Jersey City	Hudson	2	18	18			31	15		

NJ Perinatal and Pediatric Hospitals as of 1/05												
Map Key		LOCATION	COUNTY	LEVEL	OB/GYN BEDS		INTERMEDIATE BASSINETS	INTENSIVE BASSINETS	PEDIATRIC BEDS		PEDIATRIC INTENSIVE CARE BEDS	CHILDREN'S HOSPITAL
					Lic.	Mtn.			Lic.	Mtn.	( ) = approved	
Regional Perinatal Consortium of Monmouth & Ocean Counties												
30	Meridian Hospitals Corporation - Jersey Shore University M	Neptune	Monmouth	5	27	27	7 (7)	14 (6)	27	27	6	
31	Monmouth Medical Center	Long Branch	Monmouth	5	38	60	8	15 (8)	21	21	(6)	
32	CentraState Healthcare System	Freehold	Monmouth	3	36	36	4 (4)		12	12		
33	Community Medical Center	Toms River	Ocean	3	27	27	5	(8)	17	16		
34	Kimball Medical Center	Lakewood	Ocean	3	24	13	5		16	16		
35	Meridian Hospitals Corporation - Ocean Medical Center	Brick	Ocean	3	27	27	6		6	6		
36	Meridian Hospitals Corporation - Riverview Medical	Red Bank	Monmouth	3	36	36	5		6	6		
37	Southern Ocean County Hospital	Manahawkin	Ocean	2	10	10						
Northern MCH Consortium												
38	Saint Barnabas Medical Center	Livingston	Essex	5	74	74	25 (8)	23	24	24	(10)	
39	St. Joseph's Regional Medical Center	Paterson	Passaic	5	54	64	20 (5)	30 (15)	54	54	6	X
40	Englewood Hospital and Medical Center	Englewood	Bergen	4	30	30	5	6	28	12		
41	Holy Name Hospital	Teaneck	Bergen	3	25	29	11		16	16		
42	The Valley Hospital	Ridgewood	Bergen	4	38	38	9	6	14	14	(4)	
43	Barnert Hospital	Paterson	Passaic	3	22	22	5		23	10		
44	Chilton Memorial Hospital	Pompton Plains	Morris	3	24	24	4		16	16		
45	Columbus Hospital	Newark	Essex	3	20	20	6		16	14		
46	Pascack Valley Hospital	Westwood	Bergen	3	18	18	5	(6)	24	24		
47	Saint Clare's Hospital/Denville	Denville	Morris	3	23	24	8		20	12		
48	St. Joseph's Wayne Hospital	Wayne	Passaic	2	18	18						
49	St. Mary's Hospital Passaic	Passaic	Passaic	2	12	12						
Southern Perinatal Cooperative												
50	Our Lady of Lourdes Medical Center	Camden	Camden	5	32	15	9 (2)	16 (3)	9	8		
51	The Cooper Health System	Camden	Camden	5	28	26	12 (1)	23 (3)	32	31	6	X
52	Atlantic City Medical Center - City Division	Atlantic City	Atlantic	4	17	17	6 (-2)	7 (-7)	20	4		
53	Kennedy Memorial Hospitals UMC Stratford	Stratford	Camden	4	26	10	6	6	13	0		
54	Virtua West Jersey Hospital - Voorhees	Voorhees	Camden	4	59	59	12 (8)	12 (4)	20	20	2 (4)	
55	Atlantic City Medical Center - Mainland Division	Atlantic City	Atlantic	3	17	17	2 (11)	(9)	20	20		
56	Burdette Tomlin Memorial Hospital	Cape May Court House	Cape May	3	13	13						
57	Kennedy Memorial Hospitals UMC Washington Twp	Turnersville	Gloucester	3	16	15	4 (4)	(6)	8	6		
58	Lourdes Medical Center of Burlington County	Willingboro	Burlington	3	28	28	6					
59	Shore Memorial Hospital	Somers Point	Atlantic	3	23	23	4		10	10		
60	South Jersey Healthcare Regional Medical Center	Vineland	Cumberland	3	24	24	8	(6)	14	14		
61	Underwood Memorial Hospital	Woodbury	Gloucester	3	18	18	6		10	10		
62	Virtua Memorial Hospital of Burlington County	Mt. Holly	Burlington	3	30	30	12		14	14		

NJ Perinatal and Pediatric Hospitals as of 1/05												
Map Key		**LOCATION**	**COUNTY**	**LEVEL**	**OB/GYN BEDS**		**INTERMEDIATE BASSINETS**	**INTENSIVE BASSINETS**	**PEDIATRIC BEDS**		**PEDIATRIC INTENSIVE CARE BEDS**	**CHILDREN'S HOSPITAL**
					Lic.	Mtn.			Lic.	Mtn.	( ) = approved	
63	The Memorial Hospital of Salem County, Inc.	Salem	Salem	2	14	14						
70	South Jersey Hospital - Elmer	Elmer	Salem	2	5	5						
Non-perinatal Hospitals w/ Pediatric Beds												
64	Bayshore Community Hospital	Holmdel	Monmouth	NA					10	10		
65	Capital Health System at Fuld	Trenton	Mercer	NA					6	6		
66	Deborah Heart and Lung	Brown Mills	Burlington	NA					16	16		
67	Saint Clare's Hospital/Sussex	Sussex	Sussex	NA					6	0		
68	Saint Michael's Medical Center	Newark	Essex	NA					6	0		
69	William Kessler Memorial Hospital	Hammonton	Atlantic	NA					16	0		
Totals					**1714**	**1654**	**433 (56)**	**336 (82)**	**1235**	**992**	**91 (46)**	**8**

Appendix D

Regional and Intensive and Intermediate Perinatal Centers
Intermediate and Intensive Bassinets as of November 2005

Fac. No.	Hospital	FAC_CITY	Intensive	Intermediate	County
COMMUNITY PERINATAL CENTER - INTERMEDIATE					
11201	JFK Medical Center	EDISON	0	6	MIDDLESEX
10102	AtlantiCare Regional Medical Center, Inc. - City Division	ATLANTIC CITY	0	4	ATLANTIC
11601	Barnert Hospital	PATERSON	0	5	PASSAIC
11302	CentraState Medical Center	FREEHOLD	0	8	MONMOUTH
11401	Chilton Memorial Hospital	POMPTON PLAINS	0	4	MORRIS
10701	Clara Maass Medical Center	BELLEVILLE	0	7	ESSEX
10703	Columbus Hospital	NEWARK	0	6	ESSEX
11501	Community Medical Center	TOMS RIVER	0	5	OCEAN
10205	Holy Name Hospital	TEANECK	0	11	BERGEN
11001	Hunterdon Medical Center	FLEMINGTON	0	4	HUNTERDON
10802	Kennedy Memorial Hospitals-University Medical Center -Washington Twp.	TURNERSVILLE	0	4	CAMDEN
11502	Kimball Medical Center	LAKEWOOD	0	5	OCEAN
10303	Lourdes Medical Center of Burlington County	WILLINGBORO	0	6	BURLINGTON
10906	Meadowlands Hospital Medical Center	SECAUCUS	0	4	HUDSON
10708	Mountainside Hospital	MONTCLAIR	0	4	ESSEX
12004	Muhlenberg Regional Medical Center, Inc.	PLAINFIELD	0	7	UNION
11902	Newton Memorial Hospital	NEWTON	0	2	SUSSEX
11505	Ocean Medical Center	BRICK	0	6	OCEAN
10905	Palisades Medical Center of New York / Presbyterian Healthcare System	NORTH BERGEN	0	4	HUDSON
10208	Pascack Valley Hospital	WESTWOOD	0	5	BERGEN
11604	PBI Regional Medical Center	PASSAIC	0	5	PASSAIC
11203	Raritan Bay Medical Center - Perth Amboy Division	PERTH AMBOY	0	7	MIDDLESEX
11305	Riverview Medical Center	RED BANK	0	5	MONMOUTH
11101	Robert Wood Johnson University Hospital at Hamilton	HAMILTON	0	4	MERCER
11406	Saint Clare's Hospital/Denville Campus	DENVILLE	0	8	MORRIS
10711	Saint James Hospital	NEWARK	0	4	ESSEX
10103	Shore Memorial Hospital	SOMERS POINT	0	4	ATLANTIC
11802	Somerset Medical Center	SOMERVILLE	0	6	SOMERSET
10603	South Jersey Healthcare Regional Medical Center	VINELAND	0	8	CUMBERLAND
10908	St. Mary Hospital	HOBOKEN	0	6	HUDSON
12007	Trinitas Hospital - Williamson Street Campus	ELIZABETH	0	7	UNION
10801	Underwood-Memorial Hospital	WOODBURY	0	6	GLOUCESTER
11103	University Medical Center at Princeton	PRINCETON	0	5	MERCER
10301	Virtua-Memorial Hospital of Burlington County, Inc.	MOUNT HOLLY	0	12	BURLINGTON

Regional and Intensive and Intermediate Perinatal Centers
Intermediate and Intensive Bassinets as of November 2005

Fac. No.	Hospital	FAC_CITY	Intensive	Intermediate	County
	COMMUNITY PERINATAL CENTER - INTENSIVE				
10101	AtlantiCare Regional Medical Center, Inc. - Mainland	POMONA	9	13	ATLANTIC
10202	Englewood Hospital and Medical Center	ENGLEWOOD	6	5	BERGEN
10403	Kennedy Memorial Hospitals-University Medical Center - Stratford	STRATFORD	6	6	CAMDEN
12005	Overlook Hospital	SUMMIT	10	5	UNION
10211	The Valley Hospital	RIDGEWOOD	6	9	BERGEN
	REGIONAL PERINATAL CENTER				
11104	Capital Health System at Mercer	TRENTON	15	15	MERCER
10402	Cooper Hospital/University Medical Center	CAMDEN	23	12	CAMDEN
10204	Hackensack University Medical Center	HACKENSACK	9	8	BERGEN
10904	Jersey City Medical Center	JERSEY CITY	15	15	HUDSON
11303	Jersey Shore University Medical Center	NEPTUNE	14	7	MONMOUTH
11304	Monmouth Medical Center	LONG BRANCH	15	8	MONMOUTH
11403	Morristown Memorial Hospital	MORRISTOWN	14	12	MORRIS
10709	Newark Beth Israel Medical Center	NEWARK	46	23	ESSEX
10404	Our Lady of Lourdes Medical Center	CAMDEN	16	9	CAMDEN
11202	Robert Wood Johnson University Hospital	NEW BRUNSWICK	6	5	MIDDLESEX
10710	Saint Barnabas Medical Center	LIVINGSTON	23	33	ESSEX
11205	Saint Peter's University Hospital	NEW BRUNSWICK	35	19	MIDDLESEX
11605	St. Joseph's Hospital and Medical Center	PATERSON	30	20	PASSAIC
10702	UMDNJ-University Hospital	NEWARK	28	24	ESSEX
10405	Virtua-West Jersey Hospital Voorhees	VOORHEES	12	18	CAMDEN

Appendix E

Perinatal and Pediatric Task Force Presentations

NJ Rules Governing Perinatal and Pediatric Hospital Services
Sandra Howell-White, Amy Tiedemann, November 16, 2004

Maternal and Child Health Consortia
Celeste Wood, January 6, 2005

Infant and Pediatric Service Information and Health Trends
Sandra Howell-White, January 6, 2005

Infant and Pediatric Service Information and Health Trends: In-depth Analysis;
Sandra Howell-White, March 9, 2005

Perinatal/Pediatric Task Force Review of Literature
Mary Blanks, March 9, 2005

Regulation of Perinatal and Pediatric Services in Selective States
Amy Tiedemann, Sandra Howell-White, April 13, 2005

Overview of Neonatologists in New Jersey
Sandra Howell-White; April 13, 2005

Presentations are available at:
http://www.cshp.rutgers.edu/peripedi_taskforce/MeetingMaterials.htm