



HUDSON PERINATAL
CONSORTIUM, INC.

The Hudson Perinatal Consortium is pleased to present its eleventh annual data report, the 2009 Data Report. This report highlights trends in maternal and child health for Hudson County deliveries over the past thirteen years and compares outcomes with the latest state and national benchmarks. Much progress in improving maternal child health indicators has been made as a result of the many public health efforts put in place in our community.

On a quarterly basis, each of our member hospitals submits its EBC data to The Hudson Perinatal Consortium. The EBC has greatly enhanced the Consortium's efforts to obtain and analyze critical maternity indicators and newborn outcome data. This year's report includes data from our five hospitals. Throughout this report, regional EBC data are compared with the New Jersey Department of Health & Senior Services, Division of Family Health, 2009 Child Health Indicator Project.

The Department of Health and Senior Services (NJDHSS) offers the following disclaimer for all information contained in this report:

Based on self-reported residence data from regional facilities only; other residence data not included, must be obtained from the New Jersey Department of Health and Senior Services.

We hope you continue to find this report insightful and useful. We plan to use this report to further identify trends and gaps in service in our region.

Sincerely,

A handwritten signature in black ink that reads "Mariann Moore". The signature is written in a cursive, flowing style.

Mariann Moore
Executive Director

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| <p style="text-align: center;">New Jersey Department of Health & Senior Services EBC Use & Disclaimer Statement</p> |
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The State of New Jersey uses an electronic birth certificate (EBC) to record birth and perinatal data for each birth that occurs in a New Jersey birthing facility. Birth facilities in the Hudson Perinatal Consortium voluntarily provide EBC data to the Consortium for regional analysis. The accuracy of the data contained in this report depends on the completeness and reliability of the information recorded at each EBC birthing facility. These data are preliminary, shall not be considered official by the NJ Department of Health and Senior Services (NJDHSS) and may not be represented as such.

Each year the NJDHSS's Center for Health Statistics (CHS) released an official birth file, which reflects a number of quality control procedures. Preliminary birth data will differ somewhat from the final data in terms of the number of geographic distribution of births; therefore, preliminary data should be used with caution, especially at small geographical levels.

A major difference between preliminary and final data involves residence coding. In parts of the state, postal boundaries do not coincide well with municipal boundaries, resulting in a discrepancy between mailing address and actual residence. The creation of the official state birth files involves the use of geocoding software that converts mailing addresses into proper residence addresses. The official state birth file also includes births to New Jersey residents, which occur out of state.

In the case of mortality data, exact address information is not currently known, so discrepancies between mailing address and actual residence cannot be resolved. Currently death data are published only for municipalities where the postal boundaries closely or exactly coincide with the municipal boundaries. However, address information is available for infant decedents, and is included in the matched infant birth/death file.

The reporting of small numbers in this report generally adheres to the "Rule of 5" (i.e., cells with values 1 through 4 must be aggregated or not published). Exception includes the release of statewide summary totals, values that have already been published by CHS, or values previously submitted and approved by CHS.

The Hudson Perinatal Consortium staff is available to answer questions regarding the content and use of data in this report. For official state vital statistics data visit the CHS web page: <http://www.state.nj.us/health/chs/births/birthstats.htm>.

Hudson Regional Profile

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|-----------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Deliveries | 7223 | 6959 | 6691 | 6786 | 6658 | 6520 | 6518 | 6622 | 6503 | 6473 |
| Births | 7266 | 6988 | 6756 | 6857 | 6728 | 6601 | 6582 | 6691 | 6571 | 6537 |
| *Outborn Del. | 0.3% | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% | 0.3% | 0.3% | 0.3% | 0.3% |
| Multiple Births | | 1.0% | | 2.6% | 2.1% | 2.5% | 1.8% | 2.0% | 2.1% | 1.9% |
| Twins/100 births | 1 | | 1.9 | | 2.0 | 2.4 | | 2.0 | 2.0 | 1.9 |
| Triplets/1,000 births | 1 | - | - | - | 1 | - | - | - | - | 1 |
| Quads/1,000 births | | | | | | 1.5 | - | - | - | - |
| *Maternal Deaths (per 100000 deliv.) | 2.8 | 1.4 | 14.9 | 14.7 | 30.0 | 15.3 | 30.7 | 15.1 | - | - |
| Fetal Deaths >20 wks/1,000 births & fds | 6.5 | 6.1 | 7.9 | 7.5 | 7.2 | 7.8 | 9.2 | 6.8 | 8.6 | 7.0 |
| Total | 47 | 43 | 54 | 53 | 49 | 52 | 61 | 46 | 57 | 46 |
| Antepartum | 36 | 31 | 42 | 45 | 37 | 39 | 44 | 38 | 46 | 35 |
| Intrapartum | 11 | 12 | 12 | 7 | 12 | 13 | 17 | 8 | 11 | 11 |
| Neonatal Deaths per 1,000 births | 5.9 | 4.4 | 5.2 | 4.5 | 3.0 | 3.2 | 3.2 | 1.3 | 2.3 | 1.8 |
| *Mat. Transports | 0.6% | 0.3% | 0.3% | 0.6% | 0.9% | 0.8% | 1.0% | 0.5% | 0.4% | 0.4% |
| Inf. Transf. Out | 2.4% | 2.0% | 2.0% | 1.9% | 1.5% | 1.8% | 1.6% | 2.2% | 2.3% | 2.5% |
| Inf. Transf. In | 114 | 88 | 63 | 52 | 49 | 55 | 43 | 46 | 38 | 47 |
| *Gravida | | | | | | | | | | |
| Primip | 28.3% | 28.4% | 28.9% | 29.1% | 30.0% | 30.0% | 29.6% | 30.8% | 31.0% | 30.6% |
| Multip | 71.7% | 71.6% | 71.1% | 70.9% | 70.0% | 70.0% | 61.4% | 69.2% | 69.0% | 69.4% |
| *Race/Ethnicity | | | | | | | | | | |
| Hispanic | 49.8% | 50.9% | 51.3% | 53.6% | 53.6% | 53.2% | 53.4% | 52.6% | 49.4% | 50.1% |
| White non-Hisp. | 18.6% | 17.9% | 17.7% | 16.6% | 17.0% | 16.7% | 16.6% | 16.4% | 18.8% | 18.6% |
| Black non-Hisp. | 17.6% | 17.4% | 17.3% | 15.6% | 15.1% | 16.0% | 16.7% | 15.9% | 15.8% | 15.3% |
| Other non-Hisp. | 11.5% | 13.1% | 12.5% | 13.3% | 14.0% | 14.0% | 12.7% | 14.3% | 15.9% | 15.3% |
| *Hispanic Origin | | | | | | | | | | |
| Mexican | N/A | N/A | 10.0% | 11.7% | 12.2% | 12.2% | 13.3% | 12.7% | 14.7% | 14.3% |
| Cuban | N/A | N/A | 6.0% | 5.0% | 4.6% | 4.5% | 3.8% | 3.9% | 2.9% | 3.9% |
| Puerto Rican | N/A | N/A | 25.0% | 21.6% | 21.8% | 21.1% | 21.6% | 22.8% | 22.1% | 21.9% |
| Central/So. Amer. | N/A | N/A | 60.0% | 60.7% | 60.7% | 61.5% | 59.3% | 59.5% | 59.1% | 57.6% |
| *Mother's Age | | | | | | | | | | |
| <17 years | 3.4% | 3.6% | 3.6% | 3.1% | 3.3% | 4.1% | 3.3% | 3.2% | 3.2% | 3.0% |
| <20 years | 11.1% | 9.7% | 9.8% | 8.9% | 9.2% | 9.9% | 10.0% | 10.1% | 9.6% | 9.0% |
| 20- 24 years | 25.0% | 25.1% | 24.6% | 23.7% | 22.9% | 23.4% | 24.7% | 22.9% | 22.7% | 21.2% |
| 25-29 years | 26.6% | 27.1% | 27.6% | 27.2% | 28.4% | 28.5% | 28.3% | 29.8% | 27.9% | 29.8% |
| 30-34 years | 23.3% | 23.6% | 23.6% | 24.8% | 23.8% | 22.9% | 22.6% | 23.1% | 24.5% | 25.1% |
| > 35 years | 13.9% | 14.4% | 14.4% | 15.3% | 15.6% | 15.2% | 14.3% | 14.2% | 15.3% | 14.9% |
| *Education | | | | | | | | | | |
| < HSchool Grad | 23.4% | 21.4% | 23.7% | 19.8% | 22.4% | 22.8% | 22.6% | 20.8% | 21.1% | 20.0% |
| HSchool Grad | 34.4% | 32.1% | 35.8% | 41.7% | 33.9% | 32.1% | 33.5% | 33.0% | 30.8% | 31.7% |
| > HSchool Grad | 37.6% | 39.2% | 38.7% | 37.2% | 42.6% | 44.0% | 42.8% | 45.2% | 47.2% | 47.5% |
| *Married | 51.6% | 54.4% | 53.6% | 54.4% | 52.6% | 50.6% | 47.9% | 48.3% | 48.9% | 49.5% |
| *Paternity | 70.7% | 73.6% | 72.5% | 73.4% | 75.7% | 79.1% | 77.3% | 79.3% | 78.8% | 79.7% |
| *Foreign Born | 54.3% | 55.8% | 56.7% | 59.5% | 59.0% | 58.3% | 57.9% | 57.2% | 57.2% | 56.6% |
| *Employed | N/A | 45.8% | 43.7% | 41.4% | 43.2% | 45.5% | 44.3% | 47.0% | 45.8% | 46.2% |
| *WIC Enrolled | 35.3% | 29.3% | 36.0% | 48.9% | 56.8% | 57.0% | 57.9% | 52.4% | 51.8% | 52.3% |

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| *Insurance | | | | | | | | | | |
| Medicaid | 36.7% | 33.6% | 41.1% | 49.2% | 51.4% | 52.3% | 52.4% | 50.2% | 53.0% | 56.6% |
| Uninsured | 23.9% | 21.6% | 20.4% | 22.7% | 22.8% | 22.1% | 23.2% | 21.5% | 19.7% | 13.4% |
| No SSN | 52.1% | 63.3% | 53.9% | 59.8% | 66.4% | 66.4% | 72.5% | 69.8% | 66.4% | 70.2% |
| Non US | 96.6% | 99.1% | 96.1% | 70.7% | 96.0% | 97.6% | 98.3% | 98.7% | 98.2% | 99.2% |
| Unknown | 8.9% | 7.7% | 5.6% | 0.9% | 0.6% | 0.3% | 0.8% | 0.7% | 1.2% | 1.8% |
| No SSN | 15.7% | 14.7% | 13.1% | 13.3% | 23.8% | 42.1% | 66.5% | 47.9% | 30.7% | 19.8% |
| Non US | 89.1% | 98.7% | 95.9% | 100% | 90.0% | 87.5% | 97.6% | 95.7% | 100% | 100% |
| *Prenatal Care | | | | | | | | | | |
| 1st Trimester | 71.8% | 71.4% | 73.4% | 74.7% | 75.0% | 74.9% | 73.7% | 74.9% | 75.9% | 76.8% |
| 2nd Trimester | 19.4% | 18.1% | 20.1% | 18.1% | 19.6% | 19.4% | 20.8% | 20.3% | 18.9% | 18.2% |
| 3rd Trimester | 5.2% | 5.1% | 4.4% | 4.9% | 4.0% | 4.1% | 3.6% | 3.0% | 3.1% | 3.0% |
| No Care | 1.4% | 1.5% | 1.3% | 1.5% | 1.2% | 1.3% | 1.6% | 1.8% | 2.0% | 2.0% |
| Unk. Care | 0.6% | 0.3% | 0.4% | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% | 2.1% | 2.0% |
| Inf. Exposure | | | | | | | | | | |
| Tobacco | 10.0% | 8.7% | 8.6% | 6.7% | 7.2% | 7.2% | 6.4% | 5.4% | 5.0% | 4.8% |
| Alcohol | 1.3% | 1.0% | 1.0% | 1.0% | 0.9% | 0.8% | 0.4% | 0.7% | 0.8% | 0.7% |
| Drugs | 2.4% | 2.0% | 2.1% | 2.2% | 1.7% | 1.6% | 1.8% | 1.6% | 1.7% | 1.7% |
| Fetal Alcohol | N/A | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0% | - | - | - |
| Inf. Drug Dep. (per 1,000 births) | 2.2 | 7.4 | 5.0 | 1.0 | 3.0 | 3.2 | 0.3% | 2.5% | 3.0% | 1.3% |
| *Divy. Methods | | | | | | | | | | |
| Total C/S | 30.4% | 31.1% | 33.5% | 36.0% | 38.6% | 36.6% | 37.7% | 40.1% | 42.2% | 41.5% |
| Primary C/S | 21.7% | 21.6% | 23.7% | 26.1% | 28.8% | 25.9% | 27.0% | 30.0% | 30.7% | 29.8% |
| Repeat C/S | 75.8% | 79.1% | 84.5% | 86.3% | 88.2% | 87.3% | 90.8% | 92.8% | 93.6% | 92.5% |
| VBACs | 24.2% | 20.9% | 15.5% | 13.7% | 11.8% | 12.7% | 9.2% | 7.2% | 6.4% | 7.5% |
| *HIV | | | | | | | | | | |
| Counseling | 88.0% | 86.7% | 94.3% | 96.1% | 97.8% | 98.1% | 99.3% | 99.2% | 99.6% | 99.5% |
| Testing | 68.3% | 70.6% | 77.4% | 80.7% | 82.3% | 86.6% | 90.9% | 91.3% | 93.6% | 96.9% |
| Birth Weight | | | | | | | | | | |
| ELBW <1,000g | 1.0% | 0.7% | 0.8% | 0.8% | 0.7% | 0.8% | 0.6% | 0.3% | 0.4% | 0.5% |
| VLBW <1,500g | 1.6% | 1.3% | 1.3% | 1.5% | 1.5% | 1.4% | 1.3% | 0.8% | 1.1% | 1.0% |
| LBW <2,500 g | 8.0% | 7.5% | 7.6% | 7.2% | 8.0% | 7.2% | 7.6% | 7.2% | 7.2% | 7.7% |
| Preterm Deliv. (< 37 weeks) | 10.4% | 9.8% | 9.3% | 9.7% | 10.6% | 10.1% | 9.6% | 8.9% | 9.1% | 8.0% |
| Breastfeeding | | | | | | | | | | |
| Exclusive | 10.4% | 10.0% | 13.1% | 18.6% | 14.7% | 16.6% | 15.9% | 12.8% | 13.3% | 15.7% |
| Combination | 26.2% | 33.9% | 39.2% | 42.0% | 44.9% | 45.6% | 49.1% | 52.5% | 55.9% | 53.0% |
| Total | 39.0% | 43.9% | 52.3% | 60.6% | 59.6% | 62.2% | 65.0% | 65.3% | 69.2% | 68.7% |
| Inf. Discharge | | | | | | | | | | |
| Hep B Vaccine | 22.2% | 60.6% | 38.9% | 59.0% | 54.0% | 56.0% | 62.9% | 73.4% | 73.3% | 71.1% |
| Newborn Hearing | 32.3% | 53.4% | 96.3% | 98.5% | 99.1% | 99.6% | 99.8% | 99.5% | 99.9% | 99.7% |
| Follow-up Care | 98.4% | 99.4% | 99.6% | 99.3% | 100% | 100% | 100% | 100% | 100% | 99.9% |

*Analyzed by number of deliveries

All other categories unless specified reflect number of live births

N/A – Data is not available

2009 Profile by Hudson County Zip Codes

| | 07002 | 07030 | 07047 | 07086 | 07087 | 07093 | 07094 | 07302 | 07304 | 07305 | 07306 | 07307 | 07310 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Locality | Bay | Hob | NB | Weeh | UC | WNY | Sec | JC | JC | JC | JC | JC | JC |
| Births | 561 | 343 | 409 | 67 | 814 | 631 | 77 | 270 | 544 | 788 | 677 | - | 70 |
| Delivery | 553 | 338 | 406 | 66 | 812 | 625 | 74 | 266 | 539 | 782 | 660 | - | 70 |
| LBW | 5.7% | 5.8% | 6.4 | 0.0 | 6.3% | 5.2% | 11.7% | 7.4% | 9.6% | 12.3% | 10.9% | - | 7.1% |
| PTD | 7.3% | 7.6% | 8.1% | 9.0% | 15.4% | 6.2% | 11.7% | 8.5% | 11.6% | 13.3% | 11.5% | - | 4.3% |
| Neonatal Deaths | 3.6 | - | - | - | 1.2 | 1.6 | - | - | 3.7 | 2.5 | - | - | - |
| Fetal Deaths | 1.8 | - | 2.4 | - | 10.9 | 7.9 | - | 3.7 | 3.7 | 7.6 | 13.3 | - | - |
| Tobacco | 8.5% | 2.6% | 2.4% | 3.0% | 2.1% | 2.4% | 5.2% | 6.7% | 9.4% | 8.1% | 3.6% | - | 1.4% |
| Drugs | 1.4% | 1.2% | 0.7% | 0.0% | 1.2% | 1.3% | 1.3% | 2.2% | 1.8% | 3.9% | 1.3% | - | - |
| No Ins | 11.0% | 2.1% | 16.3% | 12.1% | 23.7% | 25.8% | 9.5% | 6.8% | 10.6% | 9.0% | 11.8% | - | 1.4% |
| BrFeed | 62.3% | 83.9% | 76.7% | 76.8% | 79.0% | 85.8% | 61.5% | 66.9% | 51.8% | 47.6% | 66.4% | - | 82.9% |
| 1 st Trim | 76.8 | 86.7% | 79.1% | 81.8% | 75.7% | 74.2% | 86.5% | 79.3% | 69.4% | 70.3% | 78.3% | - | 90% |
| No PNC | 2.4 | 0.9% | 1.5% | 0.0% | 2.1% | 1.1% | 2.7% | 0.8% | 3.0% | 4.0% | 1.2% | - | 1.4% |
| In WIC | 42.2% | 11.2% | 62.2% | 45.5% | 71.1% | 77.4% | 23.3% | 37.4% | 66.2% | 60.7% | 50.0% | - | 7.1% |
| Private | 57.0% | 85.2% | 40.1% | 51.5% | 21.9% | 21.1% | 74.3% | 63.9% | 34.3% | 45.0% | 43.8% | - | 90.0% |
| Clinic | 37.3% | 13.6% | 58.3% | 48.5% | 75.0% | 77.4% | 21.6% | 33.0% | 61.8% | 6.8% | 54.5% | - | 7.1% |
| Avg Age | 28.5 | 31.1 | 27.8 | 29.5 | 27.1 | 27.4 | 29.9 | 29.4 | 11.3% | 26.5 | 27.9 | - | 30.3 |
| Teens | 5.6% | 4.1% | 7.4% | 6.1% | 12.2% | 9.8% | 1.4% | 6.8% | 11.3% | 14.6% | 7.3% | - | 1.4% |
| Hispanic | 39.2% | 25.1% | 77.8% | 65.2% | 92.2% | 90.6% | 18.9% | 25.9% | 29.3% | 26.5% | 30.9% | - | 12.9% |
| White | 41.6% | 60.9% | 13.5% | 27.2% | 4.6% | 5.6% | 27.0% | 20.3% | 9.5% | 6.0% | 18.3% | - | 8.6% |
| Black | 7.2% | 3.6% | 1.5% | 1.5% | 1.2% | 0.3% | 5.4% | 19.2% | 44.9% | 53.8% | 13.8% | - | 7.1% |
| Other | 10.8% | 10.4% | 6.9% | 6.1% | 2.0% | 3.5% | 48.6% | 34.6% | 16.3% | 13.3% | 36.8% | - | 71.4% |
| US Born | 50.8% | 75.1% | 31.3% | 39.4% | 26.0% | 17.6% | 39.2% | 46.2% | 53.4% | 68.4% | 30.9% | - | 21.4% |
| Non US | 49.2% | 24.9% | 68.7% | 60.6% | 74.0% | 82.4% | 60.8% | 53.8% | 46.6% | 31.6% | 69.1% | - | 78.6% |
| Undoc. | 6.7% | 0.3% | 12.1% | 7.6% | 19.6% | 21.3% | 2.7% | 2.3% | 6.3% | 3.1% | 7.9% | - | - |
| <HS Edu | 11.6% | 3.8% | 20.9% | 66.7% | 39.0% | 42.6% | 6.8% | 6.8% | 18.0% | 15.2% | 12.3% | - | 2.9% |

***Cells Less Than 5

LBW = Low Birth Weight (< 2,500 grams)

PTD = Preterm Delivery (<37 weeks gestation)

Neonatal Death Rate per 1,000 births

Fetal Death Rate per 1,000 births and fetal deaths

No Ins = No insurance at delivery per 100 births

BrFeed = Breast feeding at time of discharge per 100 births

In WIC = Participating in WIC at any time during pregnancy per 100 births

Average Age in years

Teens = Pregnant women < 20 years per 100 births

Races are White non-Hispanic, Black non-Hispanic and Other non-Hispanic per 100 births

Undocumented = Women without a Social Security Number, Foreign Born and without Insurance per 100 births

< HS Education = Women Who Have Not Completed A High School Education per 100 births

2009 HIGHLIGHTS

BIRTHS — There was a 0.5 percent fall in births in the last year within the region. In 2009, 29.7 percent of Hudson County residents delivered babies in other New Jersey counties.

MATERNAL RACE/ETHNICITY — In 2009, the leading ethnic/racial group delivering in this region is of Hispanic origin (50.1%), followed by white non-Hispanic (18.6%), black non-Hispanic (15.3%) and other non-Hispanic (15.3%).

MATERNAL BIRTHPLACE — In 2009, 56.6 percent of the regional births were to mothers who were born outside the United States, a 1.0 percent decline from 2008 (57.2%).

LANGUAGE — In 2009, the majority of mother's stated their primary language was English (71.5%), followed by Spanish (24.2%). The next leading language reported is Arabic (2.0%).

EDUCATIONAL ATTAINMENT — The percent of mothers in the region who did not graduate high school was 20.0 percent, a 5.0 percent decrease from the 2008 rate (21.1%).

ADOLESCENT DELIVERIES — Adolescents accounted for 9.0 percent of 2009 regional deliveries, a 6.25 percent decline from the 2008 rate (9.6%).

INSURANCE — In 2009, 13.4 percent of the region's deliveries had no insurance, a 32 percent decline from 2008 (19.7%). This rate is nearly two and a half times greater than the state rate (8.5%).

PRENATAL CARE — An increase was seen in the rate of women receiving first trimester care (76.7%) in 2009 from the 2008 rate of 76.0 percent. The proportion of women without prenatal care has increased to 2.0 percent in 2009 from the 2008 rate of 2.1 percent.

WIC PARTICIPATION — WIC participation rates rose 1 percent in 2009 (52.3%) from the 2008 rate of 51.6 percent.

SUBSTANCE ABUSE — Tobacco and alcohol use decreased and drug use remained the same at 1.7 percent in 2009 from the previous year. Tobacco use decreased to 4.8 percent from the 2008 rate of 5.0 percent and alcohol use decreased to 0.7 percent from the 2008 rate of 0.8 percent. These indicators need to be interpreted with caution as they are self-reported.

BIRHTWEIGHTS — In 2009, 7.7 percent of the region's births were LBW and 1.0 percent VLBW. The LBW rate rose 7 percent from the 2008 rate (7.0%). The VLBW remained the same from 2008.

BREASTFEEDING — The region's total breastfeeding rate rose to 68.7 percent in 2009 from 69.2 percent in 2008, which constitutes a less than 1 percent decline. Exclusive breastfeeding rates increased in 2009 to 15.7 percent from the 2008 rate of 13.3 percent.

FETAL DEATH — There were 46 fetal deaths in the region in 2009 accounting for a rate of 7.0 per 1,000 live births and fetal deaths, a decline from the 2008 rate of 8.6.

IN-HOSPITAL NEONATAL DEATHS — The 2009 neonatal death rate (1.8 per 1,000 live births) declined significantly from the 2008 rate of 2.3.

REGIONAL BIRTHS

Since 1997, there has been a slow but steady decline in the number of babies born at hospitals in Hudson County. Table 1 depicts a 12.0% percent drop in the number of regional births during the thirteen-year period from 1997—2009. From 2008 to 2009 there was a 0.5 percent decline in the number of babies born at the regional facilities.

Table 1. Frequency of Regional Births 1997- 2009

| YEAR | REGIONAL BIRTHS |
|------|-----------------|
| 2009 | 6537 |
| 2008 | 6571 |
| 2007 | 6691 |
| 2006 | 6582 |
| 2005 | 6601 |
| 2004 | 6728 |
| 2003 | 6857 |
| 2002 | 6756 |
| 2001 | 6988 |
| 2000 | 7258 |
| 1999 | 7266 |
| 1998 | 7472 |
| 1997 | 7471 |

COUNTY BIRTHS

Table 2 depicts the number of county residents delivering outside the county. In 1997, approximately 18.5 percent of Hudson County resident babies were born elsewhere in New Jersey. In 2009, 29.7 percent of Hudson County babies were born in other New Jersey counties.

Table 2. 1997– 2009 Comparison of Resident Births born in Hudson County and all other New Jersey Counties

| | Total Hudson County Births | Resident Births born in Hudson County | % Resident Births in other NJ Counties |
|------|----------------------------|---------------------------------------|----------------------------------------|
| 2009 | 8303 | 5838 | 29.7% |
| 2008 | 8323 | 5793 | 30.0% |
| 2007 | 8245 | 5960 | 27.8% |
| 2006 | 8220 | 5916 | 28.0% |
| 2005 | 7850 | 5998 | 23.6% |
| 2004 | 7961 | 6050 | 24.0% |
| 2003 | 8042 | 6105 | 24.1% |
| 2002 | 7955 | 6079 | 23.6% |
| 2001 | 8037 | 6242 | 22.3% |
| 2000 | 8238 | 6532 | 20.7% |
| 1999 | 8118 | 6539 | 19.4% |
| 1998 | 8201 | 6725 | 18.0% |
| 1997 | 8202 | 6688 | 18.5% |

(Please note the total number of Hudson County residence births does not include residence births occurring in New York or any other state.)

RACE & ETHNICITY

The maternal racial/ethnic distribution in 2009 continues to show that the leading ethnic/racial group delivering in this region is mothers of Hispanic origin (Table 3). The number of white non-Hispanics and black non-Hispanics delivering in the region has decreased this year, while the percentage of Hispanics has increased.

Table 3. Maternal Race/Ethnicity, 2008 & 2009 Regional Deliveries

| | 2008 | 2009 | % Difference 2008-2009 |
|---------------------------|-------|-------|---------------------------|
| White Non-Hispanic | 18.8% | 18.6% | ▼ 1.1% |
| Black Non-Hispanic | 15.8% | 15.3% | ▼ 3.2% |
| Hispanic | 49.4% | 50.1% | ▲ 1.4% |
| Other Non-Hispanic | 15.9% | 15.3% | ▼ 3.8% |

A breakdown of the Hispanic mothers (Table 4) reveals that women of Central and South American descent (57.6%) comprise the largest group of Hispanic women. The next leading groups are those of Puerto Rican heritage (21.9%), followed by those of Mexican (14.3%) and Cuban descent (3.9%).

Table 4. Breakdown of Hispanic Origin, 2008 & 2009 Regional Deliveries

| | 2008 | 2009 | % Difference 2008-2009 |
|-----------------------------|-------|-------|---------------------------|
| Mexican | 14.7% | 14.3% | ▼ 5.9% |
| Cuban | 2.9% | 3.9% | ▲ 34.5% |
| Puerto Rican | 22.1% | 21.9% | ▼ 0.9 % |
| Central/So. American | 59.1% | 57.6% | ▼ 2.5% |

Of the 15.3 percent that identified themselves as other non-Hispanic, the majority are Asian Indian (50.3%) followed by Filipino (18.2%). The number of Other Asians, Chinese, Koreans and Vietnamese has increased slightly between 2008 and 2009.

Table 5. Breakdown of Other, Non-Hispanics, 2008 & 2009 Regional Deliveries

| | 2008 | 2009 | % Difference 2008-2009 |
|------------------------|-------|-------|---------------------------|
| Asian Indian | 51.3% | 50.3% | ▼ 1.9% |
| Chinese | 3.9% | 3.0% | ▼ 23.0% |
| Filipino | 18.4% | 18.2% | ▼ 1.1% |
| Japanese | 0.5% | 0.4% | ▼ 20.0% |
| Korean | 1.4% | 2.6% | ▲ 85.7% |
| Native American | 0.3% | 0.3% | - |
| Vietnamese | 1.7% | 2.9% | ▲ 70.4% |
| Other Asian | 13.6% | 15.8% | ▲ 16.2% |
| Mixed Race | 8.7% | 6.3% | ▼ 27.6% |

MATERNAL BIRTHPLACE

In 2009, 56.6 percent of the regional births were to mothers who were born outside the United States, a 1.0 percent fall from 2008 (57.2%). There are significantly more foreign-born mothers delivering in the region, than in New Jersey; the 2009 state rate for foreign born mothers was 37.8 percent.

PRIMARY LANGUAGE

This is the fourth year the EBC has included a data field requesting mother's primary language. Table 6 highlights that English, Spanish and Arabic are the most spoken primary languages by mothers delivering within our region.

Table 6. Primary Language of 2008 & 2009 Regional Deliveries

| LANGUAGE | 2008 | 2009 | % Difference 2008-2009 |
|----------------------------|-------|-------|---------------------------|
| American Sign Language | 0.1% | 0.1% | - |
| Arabic | 1.7% | 2.0% | ▲ 17.6% |
| Bengali | 0.1% | 0.1% | - |
| Chinese (Mandarin dialect) | 0.1% | 0.1% | - |
| Creole | 0.0% | 0.0% | - |
| English | 71.5% | 71.5% | - |
| Farsi | - | - | - |
| French | 0.2% | 0.1% | ▼ 50.0% |
| Gujarati | 0.1% | 0.1% | - |
| Hebrew | 0.0% | 0.0% | - |
| Hindi | 0.5% | 0.5% | - |
| Italian | - | 0.0% | - |
| Japanese | 0.0% | - | - |
| Korean | 0.0% | 0.0% | - |
| Other | 0.2% | 0.4% | ▲ 100.0% |
| Polish | 0.2% | 0.1% | ▼ 50.0% |
| Portuguese | 0.0% | - | - |
| Punjabi | 0.0% | - | - |
| Russian | 0.0% | 0.0% | - |
| Spanish | 24.7% | 24.2% | ▼ 2.0% |
| Tagalong | 0.1% | 0.2% | ▲ 100.0% |
| Turkish | - | 0.0% | - |
| Ukrainian | - | - | - |
| Urdu | 0.3% | 0.3% | - |
| Vietnamese | 0.2% | 0.2% | - |

EDUCATIONAL ATTAINMENT

The education status of a region is used as a proxy for state funding allocation. The percent of mothers in the region who did not graduate high school (Table 7) has fluctuated slightly over the last several years and decreased from 21.1 percent in 2008 to 20.0% in 2009. The number of mothers delivering in Hudson County without a High School education is significantly greater than the state rate for this same indicator (12.9%).

**Table 7. Maternal Rates Without a High School Diploma
1997 – 2009 Regional Deliveries**

| YEAR | MATERNAL RATES WITHOUT A HIGH SCHOOL DIPLOMA |
|-------------|---------------------------------------------------------|
| 2009 | 20.0 |
| 2008 | 21.1 |
| 2007 | 24.8 |
| 2006 | 29.7 |
| 2005 | 23.6 |
| 2004 | 23.4 |
| 2003 | 21.4 |
| 2002 | 23.7 |
| 2001 | 19.8 |
| 2000 | 22.4 |
| 1999 | 22.8 |
| 1998 | 22.6 |
| 1997 | 20.8 |

ADOLESCENT DELIVERIES

In 2009, 581 teen mothers, aged 12-19 years delivered in the region. Table 8 highlights the lowest rate in the last thirteen years and a 6.25 percent drop between 2009 (9.0%) and 2008 (9.6%).

Table 8. Regional Adolescent (< 20 years) Deliveries 1997 – 2009

| YEAR | REGIONAL ADOLESCENT DELIVERIES |
|-------------|-------------------------------------------|
| 2009 | 9.0% |
| 2008 | 9.6% |
| 2007 | 10.1% |
| 2006 | 10.0% |
| 2005 | 9.9% |
| 2004 | 9.2% |
| 2003 | 8.9% |
| 2002 | 9.8% |
| 2001 | 9.7% |
| 2000 | 11.1% |
| 1999 | 12.1% |
| 1998 | 12.8% |
| 1997 | 12.6% |

Of teen deliveries in 2009, 67.0 percent were older teens, aged 18-19 years and 63.5 percent were first time mothers. Girls 17 years and younger represent 3.0 percent of all regional deliveries, greater than New Jersey's proportion of young teens (1.9%).

As seen in prior years, in 2009, the majority of the region's adolescent deliveries reside in Jersey City (52.7%). These rates increased in Hoboken and Union City in 2009 and decreased in all other municipalities. (Table 9)

Table 9. Distribution by Locality of Regional Adolescent (<20 years) Deliveries 2008 & 2009

| | 2008 | 2009 | % Difference 2008-2009 |
|----------------------|-------------|-------------|-----------------------------------|
| Bayonne | 6.7% | 5.5% | ▼ 17.9% |
| Hoboken | 1.8% | 2.4% | ▲ 33.3% |
| Jersey City | 52.2% | 52.7% | ▲ 1.0% |
| North Bergen | 7.4% | 5.0% | ▼ 32.4% |
| Secaucus | 0.3% | 0.2% | ▼ 33.3% |
| Union City | 13.6% | 17.2% | ▲ 26.5% |
| West New York | 10.1% | 9.6% | ▼ 5.0% |

Black non-Hispanic and Hispanic women were more likely to be pregnant in the teen years than any other racial/ethnic group. (Table 10)

Table 10. Rate of Adolescent Deliveries (< 20 years) by Race/Ethnicity, Regional Deliveries 2008 & 2009

| | 2008 | 2009 | % Difference 2008-2009 |
|---------------------------|-------------|-------------|-----------------------------------|
| White Non-Hispanic | 5.3% | 5.3% | - |
| Black Non-Hispanic | 31.5% | 29.6% | ▼ 6.0% |
| Hispanic | 60.0% | 63.5% | ▲ 5.8% |
| Other Non-Hispanic | 3.2% | 1.5% | ▼ 53.1% |

INSURANCE STATUS

In 2009, 13.4 percent of regional deliveries have no insurance at time of birth (Table 11), a 32 percent decrease from 2008 (19.72%). The percentage of uninsured in 2009 is nearly two times greater than the state current benchmark (8.5%).

Table 11. Uninsured Rates, Regional Deliveries 1997 – 2009

| YEAR | REGIONAL UNINSURED RATES | NEW JERSEY UNINSURED RATES |
|-------------|-------------------------------------|---------------------------------------|
| 2009 | 13.4% | 8.5% |
| 2008 | 19.7% | 9.5% |
| 2007 | 21.5% | 9.4% |
| 2006 | 23.2% | 9.4% |
| 2005 | 22.1% | 8.5% |
| 2004 | 22.8% | 8.3% |
| 2003 | 22.7% | 8.6% |
| 2002 | 20.4% | 7.5% |
| 2001 | 21.6% | 8.5% |
| 2000 | 23.9% | 8.3% |
| 1999 | 20.3% | 7.7% |
| 1998 | 10.0% | 4.0% |
| 1997 | 8.5% | 4.3% |

About 9.2 percent of all mothers have no insurance, are foreign born and without a Social Security number in 2009. It can be assumed that this is the region's undocumented population; indicating a 6.3 percent decrease in this population from 2008 (12.9%).

Mother's receiving Medicaid benefits increased in 2009. In 2009, Medicaid enrollment in the region was 56.6 percent, a 6.8 percent rise from 2008 (53.0%). Our region has over twice the number of mothers enrolled in Medicaid; the New Jersey Medicaid population in 2009 was 25.3 percent.

Table 12 depicts the municipality where women reside, who presented without insurance benefits. As seen in 2008, the largest rates of women without insurance in 2009 live in West New York (25.8%) and Union City (23.5%). The rate of noninsured pregnant women in these localities markedly decreased in 2009 from 2008.

Table 12. Rate of Municipality & Zip Code of Residence for 2008 & 2009 Regional Deliveries without Insurance

| MUNICIPALITY | ZIP CODE | 2008 | 2009 | % Difference 2008-2009 |
|---------------|----------|-------|-------|------------------------|
| Bayonne | 07002 | 12.5% | 11.0% | ▼ 12.0 % |
| Hoboken | 07030 | 4.0% | 2.1% | ▼ 47.5% |
| North Bergen | 07047 | 29.3% | 16.3% | ▼ 44.4% |
| Union City | 07087 | 36.8% | 23.7% | ▼ 35.6% |
| West New York | 07093 | 44.4% | 25.8% | ▼ 41.9% |
| Secaucus | 07094 | 8.3% | 9.5% | ▲ 14.5% |
| Jersey City | 07302 | 6.9% | 6.8% | ▼ 1.4% |
| Jersey City | 07304 | 16.4% | 10.6% | ▼ 56.1% |
| Jersey City | 07305 | 11.3% | 9.0% | ▼ 20.4% |
| Jersey City | 07306 | 13.2% | 12.0% | ▼ 9.1 % |
| Jersey City | 07307 | 13.8% | 13.2% | ▼ 4.3% |
| Jersey City | 07310 | 6.3% | 1.4% | ▼ 77.8% |

Hispanic women (18.8%) in the region are the most likely to be uninsured in 2009 (Table 13), especially those of Mexican descent (43.2%). There has been a noted improvement in these rates between 2008 and 2009, especially in all Hispanic origin categories.

Table 13. Race/Ethnicity Rates for 2008 & 2009 Regional Deliveries without Insurance

| | 2008 | 2009 | % Difference 2008-2009 |
|--------------------|-------|-------|------------------------|
| White Non-Hispanic | 9.9% | 8.0% | ▼ 19.2% |
| Black Non-Hispanic | 10.8% | 8.0% | ▼ 25.9% |
| Other Non-Hispanic | 8.7% | 7.9% | ▼ 9.2% |
| Hispanic | 29.8% | 18.8% | ▼ 36.9% |
| Mexican | 62.4% | 43.2% | ▼ 30.8% |
| Puerto Rican | 15.2% | 4.0% | ▼ 73.7% |
| Cuban | 6.9% | 4.9% | ▼ 29.0% |
| Ctrl/So. American | 31.6% | 19.5% | ▼ 38.3% |

EARLY and NO PRENATAL CARE

Early onset of prenatal care is regarded as a precursor to optimal birth outcomes. In 2009 most of the women in the region received their prenatal care in a clinic setting (50.4%), while 46.3 percent of women obtained their care through a private practitioner. This is a similar pattern to what was noted in 2008, as 46.6 percent of women received their care from a PMD and clinics were utilized by 50.7 percent of the region's pregnant women.

First trimester care is considered the gold standard and continues to rise. The regional rate for 2009 was 76.7 percent, a 1 percent increase from the 2008 rate of 76.0 (Table 14). The regional rate continues to be below the state benchmark of 79.5 percent.

The proportion of women without prenatal care has increased to 2.0 percent in 2009 from the 2008 rate of 2.1 percent (Table 14). These are the highest rates for this indicator in thirteen years. The regional no prenatal care rate is above the rest of the state (1.0%).

Table 14. Regional 1st Trimester Prenatal Care and No Prenatal Care Rates Regional Births 1997– 2009

| YEAR | REGIONAL 1 st TRIMESTER CARE | REGIONAL NO PRENATAL CARE |
|------|-----------------------------------------|---------------------------|
| 2009 | 76.7% | 2.0% |
| 2008 | 76.0% | 2.1% |
| 2007 | 74.8% | 1.8% |
| 2006 | 73.7% | 1.6% |
| 2005 | 74.9% | 1.3% |
| 2004 | 75.0% | 1.2% |
| 2003 | 74.7% | 1.5% |
| 2002 | 73.4% | 1.3% |
| 2001 | 71.4% | 1.5% |
| 2000 | 71.8% | 1.4% |
| 1999 | 71.8% | 1.5% |
| 1998 | 71.0% | 1.5% |
| 1997 | 72.6% | 1.7% |

Table 15 shows the racial and ethnic differences in prenatal care. Black non-Hispanic women are the least likely to receive early prenatal care and have a nearly two times greater risk of not obtaining prenatal care anytime during the pregnancy. Other non-Hispanic women were the most likely to receive early prenatal care (85.7%).

**Table 15. Race/Ethnicity Rates for Early PNC and No PNC,
2008 & 2009 Regional Births**

| | 1 st Trimester Care | | | No Prenatal Care | | |
|------------------------|--------------------------------|-------|----------------------|------------------|------|----------------------|
| | 2008 | 2009 | % Diff. 2008-2009 | 2008 | 2009 | % Diff. 2008-2009 |
| White Non-Hisp. | 78.9% | 79.9% | ▲ 1.3% | 2.8% | 2.3% | ▼ 17.9% |
| Black Non-Hisp. | 63.8% | 67.6% | ▲ 6.0% | 3.6% | 3.6% | - |
| Other Non-Hisp. | 84.4% | 85.7% | ▲ 1.5 % | 1.3% | 0.8% | ▼ 38.5% |
| Hispanic | 76.1% | 75.8% | ▼ 0.4 % | 1.5% | 1.7% | ▲ 13.3 % |
| Mexican | 75.4% | 71.3% | ▼ 5.4 % | 1.1% | 1.5% | ▲ 26.6 % |
| Puerto Rican | 72.4% | 76.4% | ▲ 5.5% | 3.3% | 2.8% | ▼ 15.1 % |
| Cuban | 72.0% | 82.5% | ▲ 14.6% | 1.1% | 2.4% | ▲ 118% |
| Ctrl/So. Amer. | 78.2% | 76.1% | ▼ 2.7% | 0.8% | 1.3% | ▲ 38.5 % |

Women residing in Jersey City in 2009, especially living in zip codes 07304 and 07305 were the least likely to receive first trimester prenatal care and the most likely to not receive prenatal care (Table 16). Mothers living in Hoboken had the highest rate for early prenatal care (85.6%) and the lowest rate of no prenatal care.

**Table 16. 2009 Rates of 1st Trimester Prenatal Care
and No Prenatal Care Regional Births by Locality and Zip Code**

| | ZIP CODE | 1 st Trimester Care | | | No Prenatal Care | | |
|----------------------|--------------|--------------------------------|-------|----------------------|------------------|------|----------------------|
| | | 2008 | 2009 | % Diff. 2008-2009 | 2008 | 2009 | % Diff. 2008-2009 |
| Bayonne | 07002 | 76.8% | 77.0% | ▲ 0.3% | 2.7% | 2.3% | ▼ 14.8% |
| Hoboken | 07030 | 85.6% | 86.9% | ▲ 1.5% | 2.0% | 0.9% | ▼ 55.0% |
| North Bergen | 07047 | 72.3% | 79.2% | ▲ 9.5 % | 1.6% | 1.5% | ▼ 6.25% |
| Union City | 07087 | 76.2% | 75.7% | ▼ 0.7 % | 1.7% | 2.1% | ▲ 23.5% |
| West New York | 07093 | 77.0% | 74.0% | ▼ 3.9 % | 1.0% | 1.1% | ▲ 10.0% |
| Secaucus | 07094 | 81.3% | 85.7% | ▲ 5.4% | - | 2.6% | - |
| Jersey City | 07302 | 80.4% | 79.2% | ▼ 1.5 % | 2.4% | 0.7% | ▼ 70.8% |
| Jersey City | 07304 | 69.6% | 69.5% | ▼ 0.1 % | 3.2% | 2.9% | ▼ 9.4% |
| Jersey City | 07305 | 67.2% | 70.3% | ▼ 4.6% | 2.9% | 3.9% | ▲ 34.8% |
| Jersey City | 07306 | 73.8% | 78.1% | ▲ 5.8% | 2.9% | 1.2% | ▼ 58.6% |
| Jersey City | 07307 | 81.6% | 78.0% | ▼ 4.4% | 1.5% | 2.2% | ▲ 46.7% |
| Jersey City | 07310 | 86.4% | 90.4% | ▲ 4.6% | 1.2% | 1.4% | ▲ 16.7% |

Table 18 compares various indicators that highlight those women most likely to obtain early prenatal care during the first trimester and those least likely to receive prenatal care during their pregnancy. The variables of age, prior pregnancies, education and insurance are determinants for women receiving early prenatal care as well as not obtaining any care. US born women are less likely to receive prenatal care than their foreign-born counterparts.

The data shows differences in access to 1st trimester prenatal care from private practitioners and clinic populations. Of those choosing to see a private practitioner, 85.8 percent received first trimester care. Significantly less women opting to receive prenatal care at a clinic received first trimester care (61.3%).

**Table 18. Maternal Risk Factors for Early PNC and No PNC
2009 Regional Births**

| | 1 st Trimester Care | No Prenatal Care |
|--------------------------|--------------------------------|------------------|
| AGE | | |
| < 20 years | 61.4% | 3.2% |
| 20-34 years | 78.0% | 1.9% |
| > 35 years | 79.7% | 1.6% |
| TOTAL PREGNANCIES | | |
| Primips | 78.0% | 1.1% |
| Multips | 76.1% | 2.4% |
| EDUCATION | | |
| < 12 years | 66.1% | 3.9% |
| High School Grad | 75.3% | 2.4% |
| > 12 years | 82.4% | 0.8% |
| LOCATION | | |
| Private | 85.8% | N/A |
| Clinic | 71.3% | N/A |
| INSURANCE | | |
| Insurance | 79.0% | 1.0% |
| No Insurance | 62.0% | 8.2% |
| BIRTHPLACE | | |
| US Born | 75.5% | 2.6% |
| Foreign born | 77.7% | 1.5% |

WIC PARTICIPATION

Maternal nutritional status plays a significant role in ensuring maternal and infant health. Prenatal regional WIC participation has increased over the last thirteen years, reaching its peak in 2006. Since that time it has steadily been decreasing and in 2009, 52.3 percent of all women delivering in the region were noted to obtain WIC services. This rate is in sync with the 2009 rate of women seeking prenatal care from a clinic provider (50.7%).

Table 19. WIC Participation, Regional Deliveries 1997 – 2009

| YEAR | REGIONAL WIC PARTICIPATION |
|------|----------------------------|
| 2009 | 52.3% |
| 2008 | 51.8% |
| 2007 | 52.4% |
| 2006 | 57.7% |
| 2005 | 57.0% |
| 2004 | 57.0% |
| 2003 | 49.0% |
| 2002 | 36.0% |
| 2001 | 29.0% |
| 2000 | 35.0% |
| 1999 | 41.0% |
| 1998 | 47.0% |
| 1997 | 46.0% |

SUBSTANCE ABUSE

It has been well documented that maternal substance use increases the risk of poor birth outcomes and long-term disabilities in children. Over the last thirteen years, regional substance rates for tobacco, alcohol and drugs appear to have improved (Table 20). Given that these rates are mostly self-reported, it is believed that the incidence is considerably under-reported.

Table 20. Substance Abuse, Regional Births 1997 – 2009

| | Tobacco | Alcohol | Drugs |
|-------------|----------------|----------------|--------------|
| 2009 | 4.8% | 0.7% | 1.7% |
| 2008 | 5.0% | 0.8% | 1.7% |
| 2007 | 5.4% | 0.7% | 1.6% |
| 2006 | 6.4% | 0.4% | 1.8% |
| 2005 | 7.2% | 0.8% | 1.6% |
| 2004 | 7.2% | 0.9% | 1.7% |
| 2003 | 6.7% | 1.0% | 2.2% |
| 2002 | 8.6% | 1.0% | 2.1% |
| 2001 | 8.7% | 1.0% | 2.0% |
| 2000 | 10.0% | 1.3% | 2.4% |
| 1999 | 10.0% | 1.3% | 2.4% |
| 1998 | 10.8% | 1.8% | 2.5% |
| 1997 | 11.3% | 1.8% | 3.2% |

Regional 2009 tobacco and alcohol rates are below the 2009 state rates (Table 21). However, the number of babies exposed to drugs in the region is higher as compared with the state benchmark.

Table 21. Rates of Substance Abuse for 2009 State and Regional Births

| | Regional | State |
|----------------|-----------------|--------------|
| Tobacco | 4.8% | 6.4% |
| Alcohol | 0.7% | 1.0% |
| Drugs | 1.7% | 1.5% |

Regional substance use varies among racial and ethnic groups (Table 22). Tobacco use is greatest in black non-Hispanics followed by white non-Hispanics. Alcohol use is also highest among black non-Hispanics. Hispanics traditionally have low rates for tobacco and alcohol usage however babies of Puerto Rican heritage have higher levels of exposure to tobacco in 2009. Cubans also reveal a higher rate of cigarette usage in 2009.

Drug use is three times greater in the black non-Hispanic population than the rest of the region. Among Hispanics, Puerto Rican and Cuban babies are almost three as likely to be exposed to drugs.

Table 22. Race/Ethnicity Rates for 2008 – 2009 Regional Births with Substance Use

| | Tobacco | | Alcohol | | Drugs | |
|------------------------------|---------|-------|---------|------|-------|------|
| | 2008 | 2009 | 2008 | 2009 | 2008 | 2009 |
| White Non-Hispanic | 6.3% | 6.9% | 1.3% | 0.9% | 1.4% | 1.4% |
| Black Non-Hispanic | 12.5% | 10.6% | 1.1% | 1.5% | 4.5% | 4.1% |
| Other Non-Hispanic | 1.4% | 1.3% | 0.5% | 0.3% | 0.2% | 0.3% |
| Hispanic | 3.2% | 3.2% | 0.6% | 0.7% | 1.3% | 1.4% |
| Mexican | 0.4% | 0.0% | 0.0% | 0.0% | 0.4% | 0.0% |
| Puerto Rican | 9.5% | 7.8% | 1.0% | 0.6% | 3.8% | 4.4% |
| Cuban | 8.6% | 7.9% | 1.1% | 0.0% | 2.2% | 4.0% |
| South/Central America | 1.0% | 1.8% | 0.6% | 0.7% | 0.5% | 0.7% |

MATERNAL RISK FACTORS

Table 15 depicts maternal risk factors reported for regional deliveries in 2007, 2008 and 2009. The rates of hypertension seem to remain fairly constant and diabetes has decreased. The numbers of sexually transmitted diseases continues to rise.

Table 23. Maternal Risk Factors, 2007-2009 Regional Deliveries

| | 2007 | 2008 | 2009 |
|--------------------------------------|------|------|------|
| HYPERTENSION | | | |
| Chronic Hypertension | 0.8% | 0.9% | 1.0% |
| Pregnancy Related | 2.1% | 1.7% | 2.1% |
| Pre-eclampsia | 2.6% | 2.2% | 2.2% |
| Eclampsia | 0.1% | 0.1% | 0.1% |
| Total | 5.6% | 4.9% | 5.4% |
| DIABETES | | | |
| Insulin Dependent | 0.3% | 0.5% | 0.4% |
| Non-Insulin Dependent | 0.1% | 0.2% | 0.0% |
| Gestational | 5.0% | 5.3% | 4.7% |
| Total | 5.4% | 6.0% | 5.1% |
| SEXUALLY TRANSMITTED DISEASES | 3.4% | 4.4% | 5.4% |

LOW (LBW) & VERY LOW (VLBW) BIRTH WEIGHTS

Birth weight is an extremely important indicator of infant health. The number of regional LBW and VLBW babies has been steadily declining since 1997 (Table 24). In 2009, 7.7 percent of the regional births were LBW (<2,500 grams) and 1.0 percent VLBW (<1500 grams). The regional LBW rate rose 7.0 percent from 2008 (7.2%) and the region's VLBW remained nearly the same between 2008 and 2009.

Table 24. LBW and VLBW, Regional Births 1997– 2009

| YEAR | LOW BIRTH WEIGHT | VERY LOW BIRTH WEIGHT |
|------|------------------|-----------------------|
| 2009 | 7.7% | 1.0% |
| 2008 | 7.2% | 1.1% |
| 2007 | 7.2% | 0.8% |
| 2006 | 7.6% | 1.3% |
| 2005 | 7.2% | 1.4% |
| 2004 | 8.0% | 1.5% |
| 2003 | 7.2% | 1.5% |
| 2002 | 7.6% | 1.3% |
| 2001 | 7.5% | 1.3% |
| 2000 | 8.0% | 1.6% |
| 1999 | 8.0% | 1.3% |
| 1998 | 8.4% | 1.3% |
| 1997 | 8.5% | 1.6% |

Maternal race and ethnicity strongly influence birth weight (Tables 25). In addition (Table 26), plurality, access to prenatal care, maternal substance use and a prior history of a small for gestational age birth strongly impact an infant's weight. In 2009, black non-Hispanic infants continue to have the highest rate of LBW births (13.3%), an increase from the 2008 rate of 12.5%. Babies born to mothers of Hispanic heritage have the lowest LBW rate (6.1%), yet Puerto Rican mothers (7.5%) have a higher incidence of LBW than any other Hispanic group.

Table 25. Low Birth Weight Rates for 2008-2009 Regional Births

| | 2008 | 2009 | % Difference 2008-2009 |
|---------------------------|-------|-------|---------------------------|
| White Non-Hispanic | 6.2% | 6.9% | ▲ 11.3% |
| Black Non-Hispanic | 12.5% | 13.3% | ▲ 6.4 % |
| Other Non-Hispanic | 8.8% | 8.5% | ▼ 3.4% |
| Hispanic | 5.5% | 6.1% | ▲ 10.9% |
| Mexican | 4.2% | 5.6% | ▲ 33.3% |
| Puerto Rican | 7.8% | 7.4% | ▼ 5.1% |
| Cuban | 5.4% | 3.2% | ▼ 40.7 % |
| Ctrl/So. American | 5.0% | 6.0% | ▲ 2.0 % |

Multiple births were the most likely to be LBW (58.9) than their singleton counterparts (6.7). Those without prenatal care were almost two times more likely to be born with LBW. In addition, babies exposed to drugs were almost two times and a half more likely to be LBW. A history of a previous small for gestational age (SGA) baby greatly affects the chance of having another LBW baby. **Those with a previous SGA infant were nearly six times more likely to have another LBW baby.** Women without insurance had a somewhat higher likelihood of having a child with LBW (9.5%) than those with insurance (7.5%).

Table 26. Psychosocial Factors for LBW Rates for 2009 Regional Births

| Factor | Rate | Factor | Rate |
|------------------|-------------|----------------------|-------------|
| PLURALITY | | PREVIOUS SGA | |
| Single | 6.7% | SGA | 18.4% |
| Multiple | 58.9% | No SGA | 7.5% |
| TOBACCO | | PRENATAL CARE | |
| Use | 11.9% | No PNC | 13.8% |
| No Exposure | 7.6% | PNC | 7.6% |
| DRUGS | | INSURANCE | |
| Use | 17.9% | No Insurance | 9.5% |
| No Exposure | 7.6% | Insured | 7.5% |

BREASTFEEDING

It has been well documented that exclusive breastfeeding is optimal for the infant's health and well being. Over the last thirteen years, the region's total breastfeeding rate has increased considerably, from 34.8 percent in 1997 to 68.7 percent in 2009 (Table 27).

Table 27. Breastfeeding Rates, Regional Births at Discharge 1997 – 2009

| | Exclusive Breastfeeding | Combination Breast & Bottle Feeding | Total Breastfeeding |
|-------------|--------------------------------|------------------------------------------------|----------------------------|
| 2009 | 15.7% | 53.0% | 68.7% |
| 2008 | 13.3% | 55.9% | 69.2% |
| 2007 | 12.8% | 52.5% | 65.3% |
| 2006 | 15.9% | 49.0% | 65.0% |
| 2005 | 16.6% | 45.6% | 62.2% |
| 2004 | 14.7% | 44.9% | 59.6% |
| 2003 | 18.6% | 42.0% | 60.6% |
| 2002 | 13.1% | 39.2% | 52.3% |
| 2001 | 10.0% | 33.9% | 43.9% |
| 2000 | 10.4% | 26.2% | 36.6% |
| 1999 | 10.4% | 26.2% | 39.0% |
| 1998 | 10.2% | 27.0% | 37.2% |
| 1997 | 11.7% | 23.1% | 34.8% |

Despite the increases in these rates, the region remains below the state in the number of women who breastfeed exclusively. The region's 2009 exclusive rate is 15.7%, significantly lower than the state rate of 35.7%. The regional total breastfeeding rate of 68.7% continues to remain lower than the state's 2009 total rate of 74.1%.

Table 28. Psychosocial Factors for Exclusive or Combination Breastfeeding, 2009 Regional Births at Discharge

| TRAIT | RATE | TRAIT | RATE |
|--------------------------|-------|---------------------------|-------|
| BIRTHPLACE | | MARIATAL STATUS | |
| US Born | 56.4% | Married | 77.1% |
| Non US Born | 88.1% | Not Married | 60.5% |
| RACE/ETHNICITY | | EDUCATIONAL STATUS | |
| White Non-Hisp. | 73.9% | < HS Grad | 68.8% |
| Black Non-Hisp. | 40.5% | HS Grad | 61.1% |
| Hispanic | 73.8% | > HS Grad | 74.2% |
| Other Non-Hisp. | 74.3% | | |
| HISPANIC | | PRENATAL CARE | |
| Mexican | 81.6% | 1 ST Trimester | 70.3% |
| Puerto Rican | 56.2% | 2 nd Trimester | 66.5% |
| Cuban | 69.9% | 3 rd Trimester | 59.9% |
| South/Central Amer. | 78.6% | No Care | |
| AGE | | INSURANCE STATUS | |
| < 20 years | 56.1% | Insured | 68.1% |
| 20-34 years | 69.3% | Uninsured | 72.8% |
| >=35 years | 73.3% | | |
| WIC PARTICIPATION | | PNC SITE | |
| Participated | 64.5% | Private Practitioner | 71.0% |
| No Participation | 74.1% | Clinic Setting | 68.0% |
| EMPLOYMENT STATUS | | | |
| Employed | 70.8% | | |
| Unemployed | 66.9% | | |

Regional EBC data reveals that race, ethnicity, marital status, birthplace, age, origin of prenatal care, site of prenatal care, education, WIC, insurance access and employment status all influence a woman's desire to breastfeed (Table 28). Those of Hispanic origin and White non-Hispanic are the most likely to breastfeed. Among those of Hispanic heritage, there is a vast difference in the populations; those of Mexican ancestry were the most likely to breastfeed (81.6%) and Puerto Rican mothers were the least likely (56.2%). American-born and black non-Hispanic women are the least likely to breastfeed.

FETAL DEATHS

A fetal death is defined as “a death occurring before the complete expulsion or extraction from its mother of a product of conception.” Fetal deaths are also referred to as stillbirths, miscarriages or spontaneous abortions. Fetal death rates are based on fetal demises occurring at or after 20 or more weeks gestation. The demise can take place during the prenatal period (antepartum loss) or during labor and delivery (intrapartum loss).

There were 46 fetal deaths in the region in 2009, accounting for a rate of 7.0 per 1,000 live births and fetal deaths. The 2009 rate of fetal deaths decreased from the 2008 rate of 8.6. Of these 46 fetal deaths, 35 occurred during the antepartum period and 11 took place during the intrapartum period. The majority of the losses (54.6%) were over 28 weeks (Table 29).

**Table 29. 2009 Fetal Deaths by Weeks Gestation
(per 1,000 live births and fetal deaths)**

| WEEKS GESTATION | REGIONAL FETAL DEMISES |
|-----------------|------------------------|
| 20-23 | 36.9% |
| 24-27 | 8.7% |
| 28-31 | 17.4% |
| 32-35 | 17.4% |
| 36-39 | 17.4% |
| 40-42 | 2.2% |

Black non-Hispanics continue to have the highest rate of fetal deaths, (Table 30). The 2009 rate of black non-Hispanic fetal deaths decreased from 21.6 in 2008 to 12.5 in 2009, accounting for nearly a 20 percent decline. The rate among white non-Hispanics also dropped significantly in 2009.

**Table 30. Race/Ethnicity for 2008 & 2009 Regional Fetal Deaths
(per 1,000 live births and fetal deaths)**

| | 2008 | 2009 | % Difference 2008-2009 |
|--------------------|------|------|------------------------|
| White Non-Hispanic | 6.4 | 3.2 | ▼50.0% |
| Black Non-Hispanic | 21.6 | 12.5 | ▼42.1% |
| Other Non-Hispanic | 2.9 | 3.6 | ▲24.1% |
| Hispanic | 7.0 | 7.3 | ▲4.3% |
| Total | 8.6 | 7.0 | ▼18.6% |

**Table 31. Psychosocial Factors for 2009 Regional Fetal Deaths
(per 1,000 live births and fetal deaths)**

| TRAIT | RATE | TRAIT | RATE |
|--------------------------|------|-----------------------------|------|
| BIRTHPLACE | | MARITAL STATUS | |
| US Born | 8.0 | Married | 4.0 |
| Non US Born | 6.2 | Not Married | 9.9 |
| TOBACCO USAGE | | EDUCATIONAL STATUS | |
| No Usage | 6.2 | < HS Grad | 8.4 |
| Usage | 16.0 | HS Grad | 8.1 |
| | | > HS Grad | 5.8 |
| DRUG USAGE | | INSURANCE STATUS | |
| No Usage | 7.0 | Insured | 6.3 |
| Usage | 9.3 | Uninsured | 11.2 |
| AGE | | PRENATAL CARE STATUS | |
| < 20 years | 6.8 | Prenatal Care | 6.2 |
| 20-34 years | 5.4 | No Prenatal Care | 44.1 |
| >=35 years | 15.2 | | |
| EMPLOYMENT STATUS | | | |
| Employed | 7.6 | | |
| Unemployed | 6.5 | | |

Insurance status, drug and tobacco use, birthplace, marital status, age and prenatal care all seem to influence the viability of a pregnancy. Table 31 illustrates the differences in rates based on demographic and psychosocial factors. Substance use, prenatal care, insurance status and age all seemed to play a great influence on pregnancy viability in 2009.

IN-HOSPITAL NEONATAL DEATHS

It has been said the health of a community is measured by the health of its infants. Infant deaths are a key indicator of the overall health status of a society, since these deaths are largely preventable. Regional neonatal in hospital deaths (occurring less than 28 days after birth), account for the majority of infant deaths and have ranged from 1.8—5.9 per 1,000 live births over the last thirteen years (Table 32). In-hospital neonatal deaths declined in the region in 2009 (1.8 per 1,000 live births).

**Table 32. Regional In-Hospital Neonatal Deaths 1997– 2009
(per 1,000 live births)**

| YEAR | REGIONAL NEONATAL DEATHS |
|------|-----------------------------|
| 2009 | 1.8 |
| 2008 | 2.3 |
| 2007 | 1.3 |
| 2006 | 3.2 |
| 2005 | 3.2 |
| 2004 | 3.0 |
| 2003 | 4.5 |
| 2002 | 5.2 |
| 2001 | 4.4 |
| 2000 | 5.9 |
| 1999 | 3.6 |
| 1998 | 5.1 |
| 1997 | 5.7 |

Significant racial disparities are noted in the neonatal death rate; a difference observed by researchers. However we have seen a decrease in this rate over the few years despite a recent rise; in 2009, that rate of black neonatal in hospital deaths is 7.9, a 16 percent increase from the 2008 rate of 6.8 (Table 33). In 2009, there were no fetal deaths seen in white non-Hispanic or other non-Hispanic mothers. The Consortium will continue to monitor these rates closely through our Fetal Infant Mortality Review Program.

**Table 33. Race/Ethnicity for 2008-2009 Regional In-Hospital Neonatal Deaths
(per 1,000 live births)**

| | 2008 | 2009 | % Difference 2008-2009 |
|---------------------------|------|------|---------------------------|
| White Non-Hispanic | 1.6 | - | ▼ 100% |
| Black Non-Hispanic | 6.8 | 7.9 | ▼ 16.2% |
| Other Non-Hispanic | 1.0 | - | ▼ 100% |
| Hispanic | 1.2 | 0.9 | ▼ 25.0% |
| Total | 2.3 | 1.8 | ▼ 21.7% |

**Table 34. 2009 Regional Neonatal Deaths
by Weeks Gestation**

| WEEKS GESTATION | REGIONAL FETAL DEMISES |
|----------------------------|-----------------------------------|
| 20-23 | 81.8% |
| 24-27 | 9.1% |

Table 34 shows that the majority of these losses occurred to very preterm infants, those born under 23 weeks (81.8%) of gestation and another 9 percent were between 24-27 weeks gestation.

COMPARISON OF HPC RATES TO HEALTHY PEOPLE 2010 OBJECTIVES

| HEALTHY PEOPLES 2010 MCH OBJECTIVES | HEALTHY PEOPLES 2010 TARGETS | 2009 HPC REGIONAL INDICATORS |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------|
| Decrease in Fetal deaths at =>20 weeks gestation | 4.1 | 7.0 |
| Decrease in Fetal and infant deaths during perinatal period (28 weeks of gestation to 7 days or more after birth) | 4.5 | 8.8 |
| Decrease in Neonatal deaths (within the first 28 days of life) | 2.9 | 1.8 |
| Increase in prenatal care beginning in 1st trimester | 90 | 76.7 |
| Reduction in C-Section Births for women giving birth for the first time | 15 | 29.8 |
| Reduction in C-Section births for women with prior cesarean birth | 63 | 92.5 |
| Reduction in low birth weight infants | 5.0 | 7.7 |
| Reduction in very low birth weight infants | 0.9 | 1.0 |
| Reduction in total preterm births | 7.6 | 8.0 |
| Reduction in preterm live births at 32 to 36 weeks of gestation | 6.4 | 7.9 |
| Reduction in preterm live births at <32 weeks of gestation | 1.1 | 1.2 |
| Increase in Alcohol Abstinence | 94 | 99.3 |
| Increase in Cigarette Abstinence | 100 | 95.2 |
| Increase in Drug Abstinence | 100 | 98.3 |
| Increase in Breastfeeding in the early postpartum period | 75 | 68.7 |